

# Sheldon E. Jordan, M.D., F.A.A.N.

Curriculum Vitae- September, 2020

## Address

Sheldon E. Jordan, M.D., A Medical Corporation & Neurological Associates - The Interventional Group

2811 Wilshire Boulevard, Suite 790

Santa Monica California, 90403

Founder & CEO: Synaptec Research, Synaptec Network & Synaptec Holdings

2811 Wilshire Boulevard, Suite 780

Santa Monica California, 90403

## Education

1978-1981      UCLA; Residency & Fellowship-Department of Neurology  
-Fields of study: Clinical Neurophysiology and Electromyography

1977-1978      UCLA; Internship- Department of Medicine

1972-1977      UCLA School of Medicine

1969            Harvard University, Premedical Study

1968-1972      Johns Hopkins University, Phi Beta Kappa

1967            University of Southampton, England, Experimental and Shakespearean Theater

## **Certifications**

- American Board of Neurology and Psychiatry 1983 to present
- American Board of Clinical Neurophysiology 1982 to present
- Pain Medicine Board by American Board of Anesthesiology
- American Board of Neurology and Psychiatry
- American Board of Addiction Medicine
- American Board of Interventional Pain Medicine
- Regenerative Medicine, ABIPM
- Evidenced Based Medicine and Statistics, SIS
- American Society of Neuroimaging: Computed Tomography
- American Society of Neuroimaging: Magnetic Resonance Imaging
- American Society of Neuroimaging: Ultrasonography
- Certification as Operator and Supervisor in Fluoroscopy
- Transcranial Magnetic Stimulation Operator/Supervisor
- CITI Human Research Certification

## **Awards and honors**

- Best Doctors in America, elected multiple years
- American Society of Interventional Pain Medicine, Distinguished Service Award, 2019
- Super Doctors, Los Angeles Magazine
- Cambridge Who's Who, Global Edition
- Elected fellow, American Academy of Neurology, 1988
- The Augustus Rose Award, highest award for resident physician at UCLA, Department Of Neurology, 1981
- The Surgical Medal, highest award for department of surgery, UCLA, 1977
- The Upjohn Award, highest award for combined research and academics, UCLA School of Medicine, 1977
- National Medical Honor Society, 1977
- The Samuel Goldwin Scholar, 1972-1977
- Alpha Epsilon Delta, National Premedical Honor Society, 1972
- Psi Chi, National Psychology Honor Society, 1972
- Phi Beta Kappa, 1972

## **Appointments and Teaching Experience**

- Clinical Associate Professor of Neurology, UCLA. Voluntary Faculty since 1981
- Clinical Associate Professor of Neurology, The John Wayne Cancer Center
- Providence Saint John's Medical Center, **date** Johns Medical Center, Santa Monica, California, 2019
- USC Department of Neurology, retired senior staff,
- Department of Neurology, Providence St John's Hospital
- Teacher, Preceptor ASIPP
- UCLA Santa Monica Medical Center, Chairman Department of Neurology, Retired

## **Collaborative Programs**

1. Consultant for USA Soccer, Major League Soccer, UCLA, Pepperdine Athletic Departments, California Boxing Commission, NBA Basketball and NFL
2. Board member, Neurologist for US Soccer
3. Course director of a weekly CME-accredited course and collaborative neuroimaging review session conducted through Providence Health Systems
4. Consultant for heart, lung and liver transplant programs at UCLA
5. Course Director American Society of Interventional Pain Medicine, Regenerative Medicine, 2018
6. Co-founder and ongoing participant in the UCLA Stroke Service and collaborator on numerous clinical trials.
7. Performed and published for work in intraoperative monitoring.
8. Collaborated in several investigational device projects including computerized EEG brain mapping, evoked potential brain mapping, interventional cerebral angiography catheter and pump designs, transcranial magnetic stimulation.
9. Staffed original Neurological Behavior Clinic at UCLA with Drs. Frank Ervin and Kenneth Rickler
10. Staffed original Sleep Laboratory at UCLA with Dr. Emery Zimmerman
11. Founding Partner board member for Center for Ambulatory Surgical Treatment
12. Medical Director of Directed Interventional Surgical Center
13. Medical Director of Neurological Associates Surgical Center
14. Medical Director & Founding Partner for Smart Brain and Health; fMRI & rTMS program for depression, OCD, pain, anxiety, concussion, tinnitus
15. Founding Partner and Managing Partner for Medical Imaging of Southern California; owned and operated one of first independent MRI scanner departments in California (1984 origins)
16. Founding Partner and Managing Partner for Diagnostic Imaging Center for Southern California; owned and operated one of first independent CT scanners in California (1983 origins)
17. Founding Partner of Neurological Associates – The Interventional Group
18. Founding Partner and CEO of The Synaptec Network, Synaptec Research, & Synaptec

## Holdings

19. Harvard Imaging group for functional MRI of pain, depression, OCD, addictions, dementia and concussion
20. Senior staff, Chairman of Neurology, retired, UCLA-Santa Monica Hospital.
21. Consulting Neurologist for Department of Justice, Division of Judicial Performance, State of California
22. Medical Director, Smart Brain and Health (rTMS)
23. Board Member, Center for Ambulatory Surgical Therapy, Westwood California
24. Reviewer ISIS, Pain Medicine Journal and Pain Physician Journal
25. Medical Advisory Board for Allergan (botulinum toxin)
26. Developed behavior modification program for chronic Schizophrenic and depressed patients at Sheppard Pratt Psychiatric Institute, Towson, Maryland (Johns Hopkins affiliated program)
27. Developed behavior modification program for developmentally disabled children at the Kennedy Institute, Baltimore, Maryland (Johns Hopkins affiliated program)
28. Developed several psychometric scales, the Head Injury Scale, the Cervical Brachial Symptom Survey Questionnaire which have been used nationally in clinical research.
29. Assistant Chaplain, developed and coordinated Sunday Services for Johns Hopkins University
30. Coach and Manager, Westside Breakers Soccer club; Gold and Premier Level; first West Los Angeles Soccer club to win California State Cup.
  - a. Even though many of the players were from disadvantaged homes, many became scholarship college players, several played on college championship teams at North Carolina, Portland and UCLA. One played on the USA National Team
31. Board Examiner, American Board of Interventional Pain Medicine
32. Course Director, World Association of Pain Medicine Ultrasound
33. Consultant for the BrainSonix Corporation
34. Board Member, American Society of Pain Physicians
35. Chief Investigator, Pfizer Tyrosine Kinase Inhibitor for treatment of degenerative dementia
36. Chief Investigator, Advanced MRI Imaging Emcyte Platelet Rich Plasma for treatment of discogenic pain
37. Chief Investigator, Focused Ultrasonography for Treatment of Degenerative Proteinopathies (Brainsonix)
38. Depth electrode placement, ablations for studying hippocampus; Dr. Olton, Johns Hopkins, 1969-1970.
39. Depth recording from brainstem, Brain Research Institute, UCLA, 1972
40. Depth recording, ablations brainstem, Learning Laboratory, Dr. Woody, UCLA
41. Monitoring, interventional radiology, Dr. Hashima, Dr. Vineula, Dr. Dion at UCLA
42. Surgical monitoring Neurosurgery Service, Dr. Martin, UCLA
43. Epilepsy surgical program, depth electrodes, monitoring at UCLA

## **Ongoing research projects**

- Focused Transcranial Ultrasound Guided Delivery of Tyrosine Kinase Inhibitors to Hippocampus for Treatment of Alzheimer's Disease
- Focused Transcranial Ultrasound Guided Delivery of Tyrosine Kinase Inhibitors to Substantia Nigra for Treatment of Parkinson's Spectrum Disorders
- Focused Transcranial Ultrasound Guided Delivery of Allogenic Exosomes for Treatment of Refractory Depression
- Focused Transcranial Ultrasound Guided Delivery of Allogenic Exosomes for Treatment of Degenerative Dementia
- Tyrosine Kinase Inhibitor Treatment of Degenerative Dementia, Chief Investigator, Pfizer
- Platelet Rich Plasma Treatment of Discogenic Pain
- Advanced MRI Imaging Applications to Clinical Practice, Retrospective and Prospective Studies
- Use of Microbubble Enhanced Ultrasound for Opening Blood Brain Barrier for Glioma
- Use of Autologous Stem Cell Treatment for Migraine and Neuralgia
- Imaging Neurovascular Coupling using Resting State MRI
- Ultrasonically guided botulinum chemodenervation and test injection for diagnosis and treatment of Thoracic Outlet Syndrome and cervical dystonia
- Functional Imaging and rTMS for OCD, pain, addiction, depression, dementia, & concussion

## **Society memberships**

- American Medical Association
- Los Angeles Medical Association
- American Academy of Neurology
- American Society of Interventional Pain Physicians
- American Neuroimaging Association
- International Spinal Injection Society
- International Pelvic Pain Society
- American Society of Addiction Medicine

## Publications and Presentations

1. Jordan, SE (Sept 2020) Anti-Aging of the Brain and Resetting the Grim Reaper Clock. Presented at the American Society of Interventional Pain Physicians (ASIPP), National Meeting.
2. Jordan, SE (July 2020) Complementary and alternative therapies. Presented at the American Society of Interventional Pain Physicians (ASIPP), Virtual Meeting.
3. Jordan, SE (July 2020) Clinical nerve function studies. Presented at the American Society of Interventional Pain Physicians (ASIPP), Virtual Meeting.
4. Jordan, SE (February 2020) Present and future allogeneic regenerative therapies. Presented at the 6th annual meeting for the World Academy of Pain Medicine United (WAPMU), Miami/Coral Gables, FL.
5. Jordan, SE & Priztlaff, S. (February 2020) Radiofrequency and regenerative approaches; how to choose? Presented at the 6th annual meeting for the World Academy of Pain Medicine United (WAPMU), Miami/Coral Gables, FL.
6. Jordan, SE (February 2020) Exosomes, amnion, placenta, and core blood. Presented at the 6th annual meeting for the World Academy of Pain Medicine United (WAPMU), Miami/Coral Gables, FL.
7. Mahdavi, K.D., Jordan, S.E., Barrows, H., Pravdic, M., Habelhah, B., Nicodemus, N.E., Blades, R.B., Iovine, J.J., Becerra, S.A., Steiner, R.S., Chang, M., Kesari, S., Bystritsky, A., O'Connor, E., Gross, H., Pereles, F.S., Whitney, M., & Kuhn, T.P. (2020) Treatment of dementia with bosutinib: an open-label study of a tyrosine kinase inhibitor. *Neurology: Clinical Practice* (forthcoming)
8. Habelhah, B., Nicodemus, N.E., Blades, R.B., Iovine, J.J., Becerra, S.A., Steiner, R.S., Chang, M., Kesari, S., Bystritsky, A., O'Connor, E., Gross, H., Pereles, F.S., Whitney, M., & Kuhn, T.P. (2020) Treatment of dementia with bosutinib: an open-label study of a tyrosine kinase inhibitor. *Neurology: Clinical Practice* (forthcoming)
9. Blades, R., Kuhn, T., Mahdavi, K., Iovine, J., Becerra, S., Mamoun, M., Bystritsky, A., & Jordan, S.E. (2020) Treating dissociative PTSD with cingulate and supplementary motor area TMS targets: a case study. *Journal of Neurological Sciences* (in press). *Journal of Neurological Sciences* (in press).
10. Jordan, S.E., Iovine, J., Kuhn, T.P., & Gelabert, H. (2020) Neurogenic thoracic outlet syndrome and other forms of cervical brachial syndrome treated with plasma concentrate enriched for alpha 2 macroglobulin. *Pain Physician*, 23:229-233.
11. Nicodemus, N.E., Jordan, S.E., Bae, H., Kamrava, E., Calodney, A., Remley, K., Benyamin, R., Peterson, M.R., Iovine, J., Packham, H.R., Mahdavi, K.D., Becerra, S.A., Raju, S., Pravdic, M., Duncan, J., & Kuhn, T.P. (2019) Safety and efficacy of platelet rich plasma for treatment of lumbar discogenic pain: a prospective, multi-center, randomized, double-blind study. *Spine*.
12. Nicodemus, N.E., Becerra, S.A., Kuhn, T.P., Packham, H.R., Duncan, J.D., Mahdavi, K.D., Iovine, J.J., Kesari, S., Pereles, S., Whitney, M., Mamoun, M., Franc, D., Bystritsky, A., Jordan, S.E. (2019) Focused transcranial ultrasound for treatment of neurodegenerative dementia. *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 5:374-81. doi:10.1016/j.trci.2019.06.007 *Alzheimer's & Dementia: Translational Research & Clinical Interventions*, 5:374-81. doi:10.1016/j.trci.2019.06.007
13. Jordan, S.E., Legal and Ethical Aspects and FDA Position on Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Orlando Florida, February, 2019
14. Jordan, SE, Managing Pelvic Pain, Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Orlando Florida, February, 2019 and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Orlando Florida, February, 2019
15. Jordan S, Prendergast S, Gonzalez J, Orbuch I, Trescot A, Manchikanti L, Regenerative Therapy for Chronic Pelvic Pain Syndromes, Essentials of Regenerative Pain Medicine in Interventional Pain Management, Asipp publishing, Paducah, Kentucky, 2019
16. Jordan, S Functional Magnetic Resonance Imaging, 2019 ASIPP Annual Meeting, American Society of Interventional Pain Physicians, Las Vegas, Nevada, May, 2019.
17. Jordan, SE Allogeneic Adipose Derived Regenerative Therapy, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, 2019
18. Jordan S, Magnetic Resonance Imaging, the Advance Toolbox, Neurosurgery Grand Rounds, University of California Davis, Sacramento, CA, June, 2019
19. Jordan, SE Bone Marrow Therapy: Harvesting and Processing, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography,

- Austin, Texas, April, 2019
20. Jordan SE, Introduction to Functional Regenerative Medicine, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, Boston Biolife, Los Angeles, CA April, 2019
  21. Jordan, SE Bone Marrow Therapy: Introduction to Regenerative Medicine & Biologic Therapies, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, April, 2019
  22. Jordan SE Orthobiologics in Clinical Practice, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, Boston Biolife, Coral Gables, Florida, February 2019
  23. Becerra, S.A. Case study: comparison of MRI techniques for demonstrating successful ultrasound targeting: BOLD compared with ASL functional imaging. Presented at the 3<sup>rd</sup> Annual International Brain Stimulation Conference, Vancouver B.C. February 2019
  24. Mahdavi, K.D., Packham, H.R., Nicodemus, N.E., Jordan, S.E., Iovine, J.J., Duncan, J.C., Becerra, S.A., Spivak, N., Kuhn, T.P., & Whitney, M. Focused ultrasound as a potential means of facilitated exosome delivery to Brodmann Area 25 in the treatment of refractory depression. Presented at the 3<sup>rd</sup> annual International Brain Stimulation conference, Vancouver, BC. February, 2019
  25. Iovine, J.J., Spivak, N.M., Jordan, S.E., Mahdavi, K.D., Duncan, J.C., Becerra, S.A., Packham, H.R., Nicodemus, N.E., Pereles, S., Whitney, M., Bystritsky, A., Kuhn, T.P., Mamoun, M.S. Case report: improved rTMS efficacy after fMRI localizes DLPFC target to non-dominant hemisphere. Presented at the 3<sup>rd</sup> annual International Brain Stimulation conference, Vancouver, BC. February 2019
  26. Textbook of Thoracic Outlet Syndrome, 2<sup>nd</sup> Edition, Springer Medical, In press, 2019
  27. Jordan S, Advanced MRI Neuroimaging Grand Rounds, Providence Saint Johns Health Center CME Course, Friday Mornings 2018 through Present Johns Health Center CME Course, Friday Mornings 2018 through Present
  28. Jordan, SE, Introduction to Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, June, 2018
  29. Jordan, SE Legal and Ethical Aspects and FDA Position on Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Orlando, Florida, June 2018
  30. Jordan, SE, Basics and Technical Aspects of Ultrasound Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Orlando, Florida, June, 2018
  31. Jordan, SE, Bone Marrow Concentrate: Evolution, Application and Acquisition in Musculoskeletal and Lumbar Spine Disorders, Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, AZ, 2018
  32. Jordan, SE, Application of Regenerative Medicine in Upper Extremity Disorders: Evidence and Technical Considerations (Fluoroscopy and/or Ultrasound) of Intraarticular Injections, Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Phoenix Arizona, May 2018
  33. Becerra, S.A., Kuhn, T.P., Duncan, J.C., Pereles, F.S., Whitney, M., & Jordan, S.E, Using resting state neurovascular coupling to differentiate healthy elderly from Alzheimer's disease. Presentation provided at the 12<sup>th</sup> annual meeting of the American Society of Functional Neuroradiology, San Diego, CA. 2018
  34. Pereles, F.S., Whitney, M., Jordan, S., Mamoun, M., Franc, D., Kuhn, T. Barriers to Use of Functional MRI in Clinical Practice – Has Experience Taught Us Anything? Forty ninth annual meeting of the Western Neuroradiological Society meeting in Laguna Beach, CA. 2018
  35. Jordan, SE Platelet Rich Plasma Therapy, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, August, 2018
  36. Jordan, SE Allogeneic Regenerative Products and Therapy, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, 2018
  37. Jordan SE, Ross D, Spiel D, Expert Panel Presentation on Exosome Therapy, 26<sup>th</sup> World Congress of the American Association of Anti-Aging Medicine, Las Vegas, Nevada, December, 2018
  38. Jordan, SE Introduction to Regenerative Medicine & Biologic Therapies, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, August, 2018
  39. Jordan, SE, Platelet Rich Plasma and Autologous Regenerative Therapy, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine

- Ultrasonography, Austin, Texas, August, 2018
40. Jordan, SE, Platelet Poor Plasma and Alpha 2 Macroglobulin Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, August, 2018
  41. S. Jordan. Basics and Technical Aspects of Ultrasound. Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Phoenix, Arizona, May, 2018
  42. S. Jordan. Bone Marrow Concentrate: Evolution, Application and Acquisition in Musculoskeletal and Lumbar Spine Disorders. Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Phoenix, Arizona, May, 2018
  43. S. Jordan. Course Co-Director, Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Phoenix, Arizona, May, 2018
  44. S. Jordan. Course Co-Director, Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Orlando, Florida, June, 2018
  45. S. Jordan. Legal and Ethical Aspects and FDA Position on Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Orlando, Florida, June, 2018
  46. Jordan, SE Bone Marrow Therapy: Harvesting and Processing, Regenerative Medicine & Biologic Therapies Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin, Texas, August, 2018
  47. Nicodemus, N.E., Packham, H.R., Jordan, S.E., Duncan, J.C., Becerra, S.A., Iovine J.J., Mahdavi, K.D., Whitney, M., Pereles, S., Franc, D., & Kuhn, T.P. The use of MRI and fMRI data for targeted focused ultrasound treatment in neurodegenerative dementia. Poster presented at the 12<sup>th</sup> annual meeting of the American Society of Functional Neuroradiology (ASFNR), San Diego, CA. October 2018
  48. Duncan, J.C., Jordan, S.E., Whitney, M., Pereles, S., Nicodemus, N.E., Packham, H.R., Becerra, S.A., Bystritsky, A., Mamoun, M.S., Chang, M., O'Connor, E., & Kuhn, T.P. Evaluation of the feasibility of applying advanced MRI scanning in clinical practice: a prospective study. Presented at the 12<sup>th</sup> annual meeting of the American Society of Functional Neuroradiology (ASFNR), San Diego, CA. October, 2018
  49. Packham, H.R., Nicodemus, N.E., Jordan, S.E., Duncan, J.C., Becerra, S.A., Bystritsky, A., Kuhn, T.P., & Mamoun, M.S. Effects of fMRI navigated TMS on treatment outcomes in major depressive disorder. Presented at the 12<sup>th</sup> annual meeting of the American Society of Functional Neuroradiology (ASFNR), San Diego, CA. October 2018
  50. Becerra, S.A., Kuhn T.P., Duncan, J.C., Mamoun, M.S., Pereles, S., Whitney, M., Jordan, S.E. Using resting state neurovascular coupling to differentiate healthy elderly from Alzheimer's disease. Presented at the 12<sup>th</sup> annual meeting of the American Society of Functional Neuroradiology (ASFNR), San Diego, CA. October 2018
  51. Nicodemus, N.E., Packham, H.R., Jordan, S.E., Whitney, M., Pereles, S., Duncan, J.C., Becerra, S.A., Bystritsky, A., Kuhn, T.P., & Mamoun, M.S. Utilizing fMRI correlates of cognitive reappraisal to identify additional TMS targets for the treatment of GAD. Presented at the 6<sup>th</sup> annual meeting of the Clinical Transcranial Magnetic Stimulation Society conference, Brooklyn, NY. May, 2018
  52. Packham, H.R., Nicodemus, N.E., Jordan, S.E., Whitney, M., Pereles, S., Duncan, J.C., Becerra, S.A., Bystritsky, A., Kuhn, T.P., Mamoun, M.S. Effects of fMRI Navigated TMS on Treatment Outcomes in Major Depressive Disorder. Sixth annual meeting of the Clinical Transcranial Magnetic Stimulation Society conference. Brooklyn, New York. May, 2018.
  53. Nicodemus, N.E., Packham, H.R., Jordan, S.E., Whitney, M., Pereles, S., Duncan, J.C., Becerra, S.A., Bystritsky, A., Kuhn, T.P., & Mamoun, M.S. Utilizing fMRI correlates of cognitive reappraisal to identify additional TMS targets for the treatment of GAD. Presented at American Society of Functional Neuroradiology, San Diego, October 2018
  54. S. Jordan, Course Director, Regenerative Medicine and Biologic Therapies, Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin Texas, August 11-12, 2018.
  55. S Jordan, M Murphy, S Esser, et al, Regulatory Oversight and the Food and Drug Administration, Regenerative Medicine and Biologic Therapies, Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin Texas, August 11-12, 2018.
  56. S Jordan, S. Essner, Woznicka, M Murphy, Case Studies in Regenerative Medicine, Regenerative Medicine and Biologic Therapies, Symposium and Practical Workshop, World Academy of Pain Medicine Ultrasonography, Austin Texas, August 11-12, 2018.



57. Bornstein, M., Pereles, S.F., Franc, D., Jordan, S.E., & Whitney, M. Diagnoses encountered in the clinical application of functional MRI in outpatient imaging. Presented at the 11<sup>th</sup> annual meeting of the American Society of Functional Neuroradiology (ASFNR), Portland, OR. June, 2017
58. Jordan, S.E., Franc, D., Pravdic, M., Becerra, S.A. Case report: quantifying resting bold imaging to monitor clinical progress of subjective disorders before and after TMS treatment. Presented at American Society of Functional Neuroradiology, Portland Oregon, June, 2017
59. Jordan SE, Bone Marrow Concentrate: Evolution, Physiology, Indications, Mechanism of Action and Preparation in Musculoskeletal and Lumbar Spine Disorders, Comprehensive Review Course of Regenerative Medicine, American Society of Interventional Pain Physicians, Las Vegas, November, 2017
60. Jordan, SE, PRP: Evolution, Physiology, Indications, Mechanism of Action and Preparation in Musculoskeletal and Lumbar Spine Disorders - Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Orlando, Florida, June 2017
61. Jordan, SE, Application of Regenerative Medicine in Upper Extremity Disorders: Evidence and Technical Considerations (Fluoroscopy and/or Ultrasound) of Intraarticular Injections, American Society of Interventional Pain Physicians, Orlando, Florida, June 2017
62. Sheldon Jordan, MD Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, Orlando Florida, June 2017
63. Jordan, SE. PRP: Evolution, Physiology, Indications, Mechanism of Action and Preparation - Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders, American Society of Interventional Pain Physicians, Memphis, 2017
64. Jordan, SE, Allogenic and Other available Biologics, Regenerative Medicine in Musculoskeletal and Lumbar Spine Disorders American Society of Interventional Pain Physicians, Memphis, Tenn, March, 2017
65. S. Jordan. Allogenic Biologics for Regenerative Medicine, Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Memphis, Tennessee, March, 2017.
66. S. Jordan. PRP: Evolution, Physiology, Indications, Mechanism of Action and Preparation Regenerative Medicine Meeting, American Society of Interventional Pain Physicians, Memphis, Tennessee, 2017
67. S. Jordan. Anatomy, Physiology, and Pharmacology: Mechanisms of Nociception, Transmission, and Pharmacology. Comprehensive Interventional Pain Medicine Review Course. American Society of Interventional Pain Physicians, Orlando, Florida, July, 2017
68. S. Jordan. Neurophysiology and Neuroanatomy of Central Sensitization and Clinical Applications. Comprehensive Interventional Pain Medicine Review Course. American Society of Interventional Pain Physicians, Orlando, Florida, July, 2017
69. S. Jordan. Electrophysiology and Nerve Conduction. Comprehensive Interventional Pain Medicine Review Course. American Society of Interventional Pain Physicians, Orlando, Florida, July, 2017
70. S. Jordan. Peripheral and Entrapment Neuropathies. Comprehensive Interventional Pain Medicine Review Course. American Society of Interventional Pain Physicians, Orlando, Florida, July 2017
71. S. Jordan. Complementary and alternative therapies: Chiropractic, Osteopathic, Ayurvedic Homeopathic, Comprehensive Interventional Pain Medicine Review Course. American Society of Interventional Pain Physicians, Orlando, Florida, July, 2017
72. S Jordan. Section Chair. Comprehensive Interventional Pain Medicine Review Course. American Society of Interventional Pain Physicians, Orlando, Florida, July, 2017
73. S. Jordan. Using the Advanced MRI Imaging Toolset for Navigation of rTMS. Clinical TMS Society Annual Meeting, New York, NY, May, 2018
74. D. Franc, S. Jordan, et al. Retrospective Analysis of Advanced MRI in Clinical Practice. American Society of Functional Neuroradiology (ASFNR) 11th Annual Meeting, Portland, Oregon, October, 2017
75. M. Bornstein, S. Jordan, et al. Applying the Advanced MRI Toolbox in Clinical Practice American Society of Functional Neuroradiology (ASFNR) 11th Annual Meeting, Portland, Oregon, October, 2017
76. S. Jordan, S. Becerra, et al. Case Report: Quantifying Resting Bold Imaging To Monitor Clinical Progress of Subjective Disorders Before And After TMS Treatment American Society of Functional Neuroradiology (ASFNR) 11th Annual Meeting, Portland, Oregon, October, 2017

77. S.Jordan, M. Pravdik, et al. Case Report: Clinical use of fMRI in the Diagnosis, Treatment Plan Development, and Follow-up of Depression and Anxiety American Society of Functional Neuroradiology (ASFNR) 11th Annual Meeting, Portland, Oregon, October, 2017
78. S. Jordan, S. Raju, et al. Case Report: Quantification of fMRI Before and After rTMS to Monitor Clinical Progress American Society of Functional Neuroradiology (ASFNR) 11th Annual Meeting, Portland, Oregon, October, 2017
79. Jordan, SE Co-Editor of the Textbook of Thoracic Outlet Syndrome, Springer Medical, 2013. Authored numerous articles in this book including related to Differential Diagnosis, Therapy, Clinical and Laboratory Testing. Other editors and authors are from Harvard (Donahue), University of Washington (Thompson), Johns Hopkins (Freischlag). Editor in Chief is Dr. Illig, now at Univ of South Florida. Johnston, M.,
80. Johnston, M., Jordan, S., and Charles, A. Pain referral patterns of the C1-C3 nerve roots: implications for headache disorders. *Annals of Neurology*. 10.1002, 2013
81. S. Jordan. Scalene Injections and Botulinum Chemodenervation for Treatment of Thoracic Outlet Syndrome, *Thoracic Outlet Syndrome: Challenges, Controversies and Consensus*, Washington University School of Medicine, St. Louis, Missouri, October 23-24, 2009.
82. S. Jordan, Dean Donahue. Neurogenic Thoracic Outlet Syndrome: Non-Surgical Management. *Thoracic Outlet Syndrome: Challenges, Controversies and Consensus*, Washington University School of Medicine, St. Louis, Missouri, October 23-24, 2009
83. Jordan SE, Ahn SS, Gelabert HA. Combining ultrasonography and electromyography for botulinum chemodenervation treatment of thoracic outlet syndrome: comparison with fluoroscopy and electromyography guidance. *Pain Physician* 2007 July; 10(4):541-6 2007 July; 10(4):541-6
84. Jordan SE. Assessment: use of epidural steroid injections to treat radicular lumbosacral pain: report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. *Neurology* 2007 September 11; 69(11):1191-2.
85. Jordan SE, Ahn SS, Gelabert HA. Differentiation of thoracic outlet syndrome from treatment-resistant cervical brachial pain syndromes: development and utilization of a questionnaire, clinical examination and ultrasound evaluation. *Pain Physician* 2007 May; 10(3):441-52.
86. AG Filler, J Haynes, SE Jordan, et al. Sciatica of non-disc origin and piriformis syndrome: diagnosis by magnetic resonance neurography and interventional magnetic resonance imaging with outcome study of resulting treatment *Journal of Neurosurgery, Spine*, 2 (2): 99-115, February, 2005
87. S. Jordan. Concussions in Soccer: A Team Neurologist's Perspective. *New Developments in Sports Related Concussion*, UPMC Health System, Westin Convention Center, Pittsburgh, Pennsylvania, 2002
88. S. Jordan. Botulinum Chemodenervation of the Scalene Muscles for Treatment of Thoracic Outlet Syndrome, *Annals of Vascular Surgery*, Vol 14, Number 4, 365-369, 2000
89. SE Jordan, GA Green and BR Mandelbaum, *Head Injury in Athletics: Mechanisms and Management*. *Orthopedics Clinical Update*, 1999
90. SE Jordan, *Head Injury in Sports Medicine*, Santa Monica Orthopedics Sports Seminar, November, 1999
91. SE Jordan, HI Machleder, *Electrodiagnostic Evaluation of Patients with Painful Syndromes Affecting the Upper Extremity*, in HI Machleder, (ed) *Vascular Disorders of the Upper Extremity*, Third Revised Edition, Futura Publishing Company, Armonk, NY, 1998
92. SE Jordan, HI Machleder, *Diagnostic des Syndromes de la Traversee Thoraco-brachiale par Infiltration du Muscle Scalene Anterieur sous Controle Electrophysiologique*, *Annales de Chirurgie Vasculaire*, Vol 12, 1998
93. SE Jordan, *Heading and Head Injury in Soccer*. US Youth Soccer National Convention in Chicago, 1998
94. GA Green and SE Jordan, *Are Brain Injuries A Significant Problem in Soccer?* *Clinics in Sports Medicine*, Vol 17, 4, 795-809, 1998
95. SE Jordan, SE Jordan, HI Machleder. *Diagnosis of Thoracic Outlet Syndrome Using Electrophysiological Guided Anterior Scalene Blocks*. *Annals of Vascular Surgery*, Vol 12, No.3, 260-264, 1997.
96. SE Jordan, *Heading and Head Injury in Soccer*. US Youth Soccer National Convention in Dallas, 1997
97. SE Jordan, GA Green, HL Galanty and B Mandelbaum, *Acute and Chronic Brain Injury in United States National Team Soccer Players*, *American Journal of Sports Medicine*, Vol 24, 205-209, 1996

98. S. Jordan, Office Management of Dementia, Clinical Dilemmas in Internal Medicine, Symposia Medicus, Cancun Mexico, June, 1996.
99. S. Jordan. Stroke Prevention and Management, Clinical Dilemmas in Internal Medicine, Symposia Medicus, Cabo San Lucas, Mexico, May, 1996
- 100.S. Jordan and B. Jabour. Combined electromyographic and stimulation guided nerve blocks for treating lumbar radicular pain. American Academy of Neurology meeting, Washington, AC, May 1994.
- 101.S. Jordan. Imaging in Cerebrovascular Disease. In Vascular Surgery. Fourth Edition, Robert Rutherford, M.A, ed., W.B. Saunders, Orlando, Florida, 1994.
- 102.S. Jordan and B. Jabour. Magnetic Resonance Myelography: A New Noninvasive Technique to Evaluate Lumbosacral Spine Pathology American Society of Neuroradiology meeting, Vancouver, B.C., 1993
- 103.S. Jordan. Uptake in Stroke Management. UCLA Department of Neurology Los Angeles, May 1993.
- 104.S. Jordan. Clinical Differentiation of Stroke Syndrome, Topics in Neurology, UCLA, Division of Family Medicine, May 1993.
- 105.S. Jordan and B. Jabour. Advances in Stroke Management. Neurology Outpatient Workbook, Department of Neurology, UCLA, Los Angeles, April 1993.
- 106.S.E. Jordan, et al. Preoperative and intraoperative localization of sensorimotor cortex combining. Evoked potential techniques with super selective angiography Journal of Neurosurgery, 1993.
- 107.R. Rauch, F. Vinuela, J. Dion G Duckweiler, E. Amos, S. Jordan N. Martin, M. Jensen, J. Bentson, L. Thibault Pre-embolization Functional Evaluation in Brain Arteriovenous Malformations The Super selective Amytal Test. AJNR, Vol 13,Jan/Feb,1992
- 108.R. Rauch, F. Vinuela, J. Dion, G. Duckweiler, E. Amos, S. Jordan, M. Jensen and J. Bentson. Pre-embolization Functional Evaluation in Brain Arteriovenous Malformations The Ability of Super selective Testing to Predict Neurological Dysfunction Before Embolization. AJNR. Vol 13, Jan/Feb, 1992.
- 109.S. Jordan. Advances in Stroke Management. UCLA Department of Neurology Seminar, Los Angeles, May 1992.
- 110.S. Jordan and B .Jabour. Magnetic Resonance Myelography A New Non-invasive Technique to Evaluate the Lumbosacral Spine . Western Neuroradiological Society meeting, San Francisco, October 1992.
- 111.S. Jordan. Stroke Prevention and Management Annual Course, Department of Family Health, UCLA Center for Health Sciences, May, 1992.
- 112.S. Jordan. Advances in Stroke Management Midway Hospital, Los Angeles, October 1992.
- 113.H. Sternbach and S. Jordan. Lithium-Associated Tardive Dyskinesia. Letters to the Editor, J. Clinical Psychopharmacol, Vol 10, April, 1990.Psychopharmacol, Vol 10, April, 1990.
- 114.S. Jordan. Ischemic Brain Rescue by Transvenous Perfusion in Baboons with Venous Sinus Occlusion. Stroke, Vol 21, January 1990.
- 115.S. Jordan. Transcranial Doppler: Principles and Applications. Course Chairman. Department of Continuing Education in Health Sciences. UCLA, October 1989.
- 116.G. Green, J. Zachazewski and S. Jordan. Peroneal Nerve Palsy Induced by Cryotherapy. The Physician and Sports Medicine, Vol 17, September, 1989
- 117.F. Vinuela, J. Dion, P. Lylyck, P. Madson, S. Jordan, N. Martin, D. Becker, The Role of Superselective Angiography by and Functional Evaluation of Brain AVMs. American Association of Neurological Surgeons. Washington, April. 1989.Superselective Angiography by and Functional Evaluation of Brain AVMs. American Association of Neurological Surgeons. Washington, April. 1989.
- 118.S. Jordan, R. Nowacki and M. Nuwer, Computerized Electroencephalography in the Evaluation of Early Dementia. Brain Topography, July, 1989.
- 119.S. Jordan, R. Nowacki and M. Nuwer, Computerized Electroencephalography and Evoked Potential Mapping in the Evaluation of Early Dementia. World Federation of Neurology, Florence, Italy, 1989
- 120.S. Jordan, J. Frazee, J. Dion, S. Kar F. Vinuela, R. Rand and E. Corday. Rescue of Ischemic Brain by Venous Retroperfusion. Stroke, Vol 20, 1989
- 121.S. Jordan. Dizziness: Causes and Treatments. UCLA Health Insights, February 1987.
- 122.S. Jordan, Electrodiagnostic Evaluation, in H. Machleder (ed.) Vascular Disorders of the Upper Extremity. Futura. Mount Kisco, New York, 1989.
- 123.N. Martin and S. Jordan. Functional Localization in Patients with Hemispheric Arteriovenous

- Malformations. Lende Meeting, Snowbird, Utah, February, 1989.
- 124.J. Mazziotta, S Jordan, M. Lones, K. Black, M. Selch, G. Pignatti and H. Vinters. Seizures and Hemiparesis in a Young Woman 24 Years after Treatment of Astrocytoma. *The Western Journal of Medicine*, Vol 150, 1989.
  - 125.M. Nuwer and S. Jordan. The Centrifugal Effect and other Special Artifacts of Topographic EEG Mapping. *Journal of Clinical Neurophysiology*, Vol 4, 1987.
  - 126.S. Ahn, S. Jordan and M. Nuwer. Topographical Brain Mapping: A New and Accurate Monitor of Cerebral Circulation and Function for Patients Undergoing Carotid Endarterectomy. *Journal of Vascular Surgery*, Vol 8, 1988.
  - 127.R. Lufkin, S. Jordan, P. Lylyck, F. Vinuela. Magnetic Resonance Imaging with Topographical EEG Electrodes in Place. *American Journal of Neuroradiology* Vol 9, 1988.S. Jordan. Transient Ischemic Attacks and the Asymptomatic Bruit, in Joint UCLA-Santa Monica Hospital Medical Center Family Practice Refresher Course, May, 1988.
  - 128.S. Jordan. Transient Ischemic Attacks and the Asymptomatic Bruit, in Joint UCLA-Santa Monica Hospital Medical Center Family Practice Refresher Course, May, 1988.
  - 129.J. Dion P, Lylyck, F. Vinuela, S. Jordan and J. Bentson. Impact of Recent Technological Advances in Endovascular Therapy of Brain Arteriovenous Malformations and Fistulas. *Congress of Neurological Surgeons*, September, 1988.
  - 130.S. Jordan. Electrophysiological Studies of Cervical Radiculopathy and Thoracic Outlet Syndrome. *Neurology, Neurosurgery Grand Rounds*. UCLA, January, 1988.
  - 131.S. Jordan. Topographic Brain Mapping and Stroke Evaluation. *Topographic Brain Mapping in Neurology, Neuroscience Symposium*, New York, September 1988.
  - 132.S. Jordan. Magnetic Resonance Imaging in Neurological Diagnosis. *Annual Meeting of the Texas Club of Internists*, Los Angeles, October, 1988.
  - 133.S. Jordan. Evaluation of Dementia. *Department of Medicine Grand Rounds*, Santa Monica Hospital, 1988.
  - 134.S. Jordan, Computed Electroencephalography and Evoked Potential Mapping Practical Imaging of the Head and Spine, *American College of Radiology*, New Orleans, January 1987.
  - 135.H. Machleder, F. Moll M. Nuwer and S. Jordan. Somatosensory Evoked Potentials in the Assessment of Thoracic Outlet Compression Syndrome. *Journal of Vascular Surgery*, Vol 6, August 1987.
  - 136.S. Jordan Clinical Evaluation of Patients with Cerebrovascular Disease, in W.S. Moore (ed.), *Surgery for Cerebrovascular Disease*, Churchill Livingstone, New York, 1987.
  - 137.S. Jordan. Brain Mapping: A New and Accurate Monitor of Cerebral Circulation and Function for Patients Undergoing Carotid Endarterectomy. *Western Vascular Society Third Annual Meeting*, January 1988.
  - 138.M. Nuwer, S. Jordan and S. Ahn Quantitative EEG is Abnormal More Often than Routine EEG in Mild Stroke. *Neurology*. March, 1987.
  - 139.S. Ahn, S. Jordan and M. Nuwer. Computed Electroencephalographic Brain Mapping in W.S. Moore (ed.), *Surgery for Cerebrovascular Disease*, Churchill Livingstone, New York, 1987.
  - 140.S. Jordan. The Use of Neuroimaging Studies in Clinical Practice. *California Medical Association Western Scientific Assembly*, March, 1987.
  - 141.S. Jordan. Electrophysiological Monitoring of Patients with Arteriovenous Malformations during Surgery and Angiography *UCLA Department of Neurosurgery Symposia*, May, 1987.
  - 142.S. Jordan and R. Gabriel, Course Directors. *Neuroimaging in the Management of Specific Clinical Problems of the Brain and Spinal Cord*. UCLA Department of Continuing Educations in the Health Sciences, 1987.
  - 143.S. Jordan. *Neuroimaging in the Adult*. Neuroimaging Course, UCLA Department of Continuing Education in the Health Sciences, December 1987.
  - 144.S. Jordan. When is Carotid Endarterectomy the Best Treatment for Carotid Atherosclerosis and its Sequelae? *Annual Symposium on Vascular Surgery of the Society for Vascular Surgery*, Scottsdale, Arizona, March, 1987.
  - 145.S. Jordan. Separating out the Vascular Causes of Dizziness. *Annual Symposium of the Society for Vascular surgery*, Scottsdale, Arizona, March, 1987.
  - 146.M. Nuwer, S. Jordan and S. Ahn . Evaluation of Stroke Using EEG Frequency Analysis and Topographical is Mapping *Neurology*, July, 1987
  - 147.J. Frazee, S. Jordan, J. Dion, S. Kar, F. Vinuela, R. Rand and E. Corday. *Topics in Functional and Anatomical Neuroimaging*. *Neuroscience Symposium*, April 1986.

- 148.S. Jordan. Advances in Treatment of Stroke, moderator of course, UCLA Department of Continuing Education in Health Sciences, Stroke: A Clinical Challenge, November, 1986.
- 149.S. Jordan. Diabetic Neuropathy American Diabetes Association, Los Angeles Chapter, June 1986.
- 150.S. Jordan. Neurological Complications of AIDS. Allergy and Immunology Grand Rounds, UCLA, 1986.
- 151.S. Jordan. Topographical Mapping & Neuroimaging Psychiatric Grand Rounds, St. John's Hospital, 1986.
- 152.S. Jordan. Clinical Approach to the Evaluation of Coma. UCLA Medicine Noon Lecture Series, January, 1985.
- 153.S. Jordan. Electromyography in Rheumatological Disease. Rheumatology Grand Rounds, UCLA, 1985.
- 154.S. Jordan. Clinical Evaluation of Cerebrovascular Disease. Medicine Departmental Meeting, 1985.
- 155.S. Jordan. Emergency Department Care of the Stroke Patient. Therapeutic Considerations. The Digest of Emergency Medical Care, June, 1984.
- 156.S. Jordan. Emergency Department Care of the Stroke Patient. Therapeutic Considerations. The Digest of Emergency Medical Care, July, 1984.
- 157.S. Jordan. Dementia and Pseudodementia. UCLA Family Practice Core Curriculum Course, 1984.
- 158.S. Jordan. Topographic EEG Mapping in Cerebrovascular Disease. Current
- 159.S. Jordan. Principles of Somatosensory Evoked Potentials and Electromyography UCLA Neurology Seminars, 1982.
- 160.S. Jordan. Medical Treatment of Insomnia, in Sleep Disorders: Diagnosis and Treatment, UCLA Department of Continuing Education in Health Sciences, 1982.
- 161.S. Jordan and C. Woody. Intracellular Recording from Facial Motor Neurons in the Awake Cat. The Physiologist, American Physiological Association, Spring, 1975.

### **Publications in Preparation**

1. Habelhah, B., Spivak, N.M., Mahdavi, K.D., Blades, R., Becerra, S.A., Barrows, H.R., Evans, N.E., Tehrani, N., Steiner, N., Kuhn, T.P., Hosseini, M.B. (in preparation) A validated task-based approach for cerebral artery confirmation using transcranial doppler. Submitted to *Ultrasound in Medicine & Biology*.
2. Habelhah, B., Mahdavi, K.D., Tehrani, N., Becerra, S.A., Spivak, N.M., Kuhn, T.P., & Jordan, S.E. (in preparation) Co-localization and lateralization of handedness, language, and dominant dorsolateral prefrontal cortex.
3. Kuhn, T.P., Becerra, S.A., Mahdavi, K.D., Habelhah, B., Tehrani, N., Barrows, H.R., Evans, N.E., Whitney, M., Pereles, F.S., Spivak, N.M., Bystritsky, A. & Jordan, S.E. (in preparation) A validation of probabilistic tractography based on anatomical and functional connectivity in neurodegenerative dementias.
4. Zielinski, M.A., Jordan, S.E., Becerra, S.A., Mahdavi, K.D., Habelhah, B., & Kuhn, T.P. (in preparation) The use of blood-oxygen level dependent imaging to confirm clinical history of thalamic pain syndrome.

### **Posters**

- Becerra, S.A., Kuhn, T.P., Duncan, J.C., Mamoun, M., Pereles, F.S., Whitney, M., & Jordan, S.E. (December, 2019) Validation of resting state neurovascular coupling in the OASIS-brains dataset to differentiate normal elderly brains from Alzheimer's disease. Poster presented at the 12<sup>th</sup> annual congress for Clinical Trials on Alzheimer's Disease (CTAD), San Diego, CA.
- Habelhah, B., Mahdavi, K.D., Kuhn, T.P., Becerra, S.A., Packham, H.R., Blades, R.B., Nicodemus, N.E., Spivak, N., Whitney, M., Mamoun, M.S., Bystritsky, A., & Jordan, S.E. (October, 2019)

Validation of MRI-navigated focused ultrasound for delivery of small molecules and exosomes. Poster presented at the 9<sup>th</sup> annual meeting of the American Society for Exosomes and Microvesicles, Pacific Grove, CA.

- Mahdavi, K.D., Kuhn, T.P., Habelhah, B., Becerra, S.A., Packham, H.R., Blades, R.B., Nicodemus, N.E., Spivak, N., Whitney, M., Mamoun, M.S., Bystritsky, A., & Jordan, S.E. (September, 2019) Validation of MRI-navigated focused ultrasound for delivery of small molecules and exosomes. Poster presented at the Exosome Based Therapeutic Development conference, Boston, MA.

### **Art Exhibits and Illustration Work**

- Lincoln Center, New York
- Lever House, New York
- Eisenhower Library, Johns Hopkins University
- Brewery Art Center, Los Angeles
- Brentwood Art Center, Santa Monica
- Vascular Disorders of the Upper Extremity, Machleder, Ed
- Textbook of Vascular Surgery, Moore, Ed
- Numerous medical and medical legal illustration

