

Juliana, et al. v. United States, et al.

Case No. 15-cv-1517 (D. Or.)

EXPERT REPORT OF DR. ARTHUR PARTIKIAN

I am a medical doctor and have been so licensed in the State of California since 2003, specializing in Pediatric Neurology and Epilepsy. I am board certified in Neurology from the American Board of Psychiatry and Neurology with special qualifications in Child Neurology since 2008 and in Epilepsy since 2017. I received my Doctorate of Medicine from Washington University School of Medicine, St. Louis Missouri in 2002, followed by combined residency training from 2002-2007 in General Pediatrics and Child Neurology at Children's Hospital Los Angeles, which is affiliated with University of Southern California. At present, I am a Clinical Associate Professor of Pediatrics & Neurology at the Keck School of Medicine of University of Southern California, Los Angeles, California. I am also the Director of the Division of Child Neurology at Los Angeles County + U.S.C. Medical Center in Los Angeles, California, and a Senior Physician in the L.A. County Department of Health Services. I have been dually employed by Los Angeles County and by the University of Southern California since 2007. A true and correct copy of my curriculum vitae, which contains an accurate summary of my education, training and experience, is attached as Exhibit 1. In addition, I have attached a listing of my recent deposition and trial testimony as an expert as Exhibit 2.

In that capacity, I have been retained by the Defendants in the above-referenced case. Specifically, I will be discussing whether the Plaintiffs' experts have appropriately characterized and/or applied standard of care medical practice in their expert opinions in this case relative to neurological impacts referenced in those experts' reports.

I understand that discovery in this case, including but not limited to depositions, remains ongoing. To the extent that additional information is revealed in discovery that warrants revisiting or supplementing my opinions and conclusions, I reserve the right to do so.

I have reviewed and am relying on the following documents and reports in this case:

1. First Amended Complaint for Declaratory and Injunctive Relief
2. Declarations of the twenty-one individual Plaintiffs in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment
3. Expert Report of Dr. Susan Pacheco and Dr. Jerome Paulson
4. Expert Report of Dr. Howard Frumkin
5. Expert Report of Dr. Lise Van Susteren, including Exhibit C Assessments of Plaintiffs

The opinions expressed in this report are based upon my review of the above-listed records and documents, as well as my education, training and experience. My opinions in this case are held to a reasonable degree of medical probability and based on my clinical and educational experience in Pediatric Neurology. I am being compensated for my work in this case at the rate of \$540 per hour. My compensation is not contingent on the outcome of this lawsuit. The views I express in this report reflect my professional opinions only and are independent of my employers.

Drs. Pacheco and Paulson state in their expert report (p.28) that “Children exposed to certain climate change and air pollutants, can experience changes to neurological development, with life-long consequences.” They also site the Targeting Environmental Neurodevelopmental Risks (TENDR) Consensus Statement that air pollutants, including nitrogen dioxide and particulate matter, are “prime examples of toxic chemicals that can contribute to learning, behavioral or intellectual impairment, as well as specific neurodevelopmental disorders such as attention deficit hyperactivity disorder or autism.” They cite a study by Perrera et al. from 2014 that children exposed to higher levels of polycyclic aromatic hydrocarbons in earlier childhood “continued to manifest adverse neurocognitive impacts – including anxiety, depression and hyperactivity – as compared to children with lower PAH exposure.” All three Plaintiffs’ expert reports assert that the Plaintiffs have already suffered health effects due to climate change, and that these health effects will be worsened in the future unless the deleterious impacts of climate change are remedied.

In order to assess the validity of the above-referenced opinions, I would expect, at the least, that standard of care medical techniques be applied to objectively characterize and to evaluate these various health effects and their potential causes so that accurate diagnostic conclusions may be reached. In my review of the twenty-one Plaintiffs’ Declarations, I focused on whether there was evidence of any direct neurological harm. In some of these Declarations, I found mention of secondary headaches from perceived exacerbation of underlying allergies, asthma, infections and/or excessive heat (Zealand B., Jaime B., Jayden F. and Avery M.) and perhaps some exacerbation of primary migraine headaches (Jayden F.). However, I could not adequately assess the quality, duration, impact, and related causal factors which could have contributed to these headache manifestations due to a paucity of information and lack of any medical records. In particular, I found missing the usual documentation and details that physicians should rely upon in order to characterize an individual’s headache complaints and to formulate an appropriate differential diagnosis, assessment, and plan of therapeutic action. At the least, an adequate medical history regarding the headache pain quality, duration, frequency, mitigating and exacerbating factors, other possible triggers, family history, and examination findings should be solicited and documented by a clinician or expert. Such information is fundamental and necessary in adequately characterizing and assessing an individual’s complaints of headaches (Lewis et al. 2002 and Pina-Garza 2013). While I

do not contest the general concept that factors mentioned by the Plaintiffs' experts as potentially associated with climate change—such as excessive heat, dehydration, psychological stress, and acute or chronic infections causing inflammation—can trigger secondary headaches or exacerbate a primary headache condition, I do not find adequate documentation in the available records and reports in this lawsuit to reach the conclusion as a practicing physician that climate change is the main trigger for the Plaintiffs' headaches.

Similarly, in order to determine that a person is suffering from other neurological insults—such as substantial cognitive or learning deficits, cortical visual or auditory dysfunction, upper or lower motor neuron disorders including muscle or nerve disease, developmental delays or disabilities, and inflammatory or autoimmune diseases of the central or peripheral nervous system—I would expect that an appropriate history be obtained, an adequate physical examination performed, and, if indicated, additional diagnostic testing be conducted. These basic but fundamental steps of clinical investigation, which are necessary in order to reach medical diagnoses, have not been completed by the Plaintiffs' experts as far I can tell. Consequently, I find no objective evidence or appropriate diagnostic testing demonstrating that Plaintiffs are suffering from any neurological disorders identified earlier in this paragraph. While a substantial body of literature referred to by the Plaintiffs' experts (in addition to others that I reviewed¹) have demonstrated an increased association or risk of various health effects, including neurological and psychological impacts, with climate change, these studies do not independently establish that the Plaintiffs' specific health effects are primarily caused by climate change and its possible repercussions. For routine medical purposes, such diagnostic conclusions in general should be verified by standard-of-care procedures and processes applied by an appropriately trained and experienced clinician.

Finally, the majority of the Plaintiffs and all three Plaintiffs' Expert reports emphasize mental health and allergy concerns. As a Pediatric Neurologist, I would defer to a mental health expert to adequately assess an individual's psychological complaints. From my vantage point as a Pediatric Neurologist, the assessment of such complaints should include investigation for past or ongoing experiences of adverse events—which might or might not be related to climate change, familial/genetic predisposition to mental health disorders, any toxin or concurrent medication exposures which could have psychological impacts, and any co-morbid cognitive, social and/or physical conditions which could affect behavioral and psychological problems. Similarly, I would defer the comprehensive medical evaluation of complaints of purported allergy or asthma symptoms and signs to an Allergist-Immunologist.

¹ These studies, in addition to those formally referenced in my Report, are attached as Exhibit 3.



Arthur Partikian, M.D.

Board Certified in Epilepsy & Neurology with special qualification in Child Neurology

Report Completed on 8/13/2018

References:

Lewis, D.W. et al. "Practice parameter: evaluation of children and adolescents with recurrent headaches. Report of the Quality Standards Subcommittee of the American Academy of Neurology and the Practice Committee of the Child Neurology Society." *NEUROLOGY* 2002;59, pages 490–498

Pina-Garza, J. Eric. "Chapter 3: Headache" in *Fenichel's Clinical Pediatric Neurology, 7th Edition: A signs and symptoms approach*. 2013, pages 76-88. Retrieved from: <https://www-sciencedirect-com.libproxy2.usc.edu/book/9781455723768/fenichels-clinical-pediatric-neurology#book-info>

CURRICULUM VITAE**ARTHUR PARTIKIAN****PERSONAL INFORMATION:****Work**

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 Building B, 3P61
 LAC+USC Medical Center
 Los Angeles, CA 90031
 Phone: 323-409-3442
 Work Email: apartiki@usc.edu; apartikian@dhs.lacounty.gov
 Personal Email: partikian@gmail.com
 Citizenship: USA

EDUCATION/APPOINTMENTS:**EDUCATION:**

<i>Year</i>	<i>Degree, Field, Institution, City</i>
1994	G.E.D., Glendale High School, Glendale, CA
1998	B.A., Pomona College, Claremont, CA
2002	M.D., Washington University School of Medicine, St. Louis, MO

POST-GRADUATE TRAINING:

<i>Year-Year</i>	<i>Training Type, Field, Mentor, Department, Institution, City</i>
2002-2003	Internship, General Pediatrics, Children's Hospital Los Angeles, Los Angeles, CA
2003-2004	Residency, General Pediatrics, Children's Hospital Los Angeles, Los Angeles, CA
2004-2007	Residency, Child Neurology, Children's Hospital Los Angeles, Los Angeles, CA

ACADEMIC APPOINTMENTS:

<i>Year-Year</i>	<i>Appointment</i>	<i>Department, Institution, City, Country</i>
2008-2018	Assistant Professor of Clinical Pediatrics & Neurology	Departments of Pediatrics & Neurology, Keck School of Medicine, U.S.C., Los Angeles
2018-present	Clinical Associate Professor of Pediatrics & Neurology (Clinician Educator Track)	Departments of Pediatrics & Neurology, Keck School of Medicine, U.S.C., Los Angeles

ADMINISTRATIVE & CLINICAL APPOINTMENTS:

<i>Year</i>	<i>Description</i>	<i>Institution, City, State, Country</i>
2007-present	Director of Division of Child Neurology	LAC+USC Medical Center, Los Angeles, CA
2012-present	Medical Director of Epilepsy Dietary Program	LAC+USC Medical Center, Los Angeles, CA
2013-present	Senior Physician	Department of Health Services of LA County, LAC+USC Medical Center, Los Angeles, CA

LICENSURE, CERTIFICATIONS**LICENSURE**

2003	A85112, California, expires 11/30/2019
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BOARD CERTIFICATION OR ELIGIBILITY

2008	American Academy of Psychiatry & Neurology, Neurology with special qualification in Child Neurology, valid through 12/31/2018
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SPECIALTY CERTIFICATION

2017	American Academy of Psychiatry & Neurology, California, Epilepsy, passed
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HONORS, AWARDS:

<i>Year</i>	<i>Description</i>	<i>Awarding agency, address, city</i>
1998-2002	Distinguished Alumni Scholarship (full-tuition, merit based)	Washington University School of Medicine, St. Louis MO
2002	Medical Student Prize for Excellence in Neurology	American Academy of Neurology
2004	General Pediatrics Resident Award for outstanding Outpatient care	Children's Hospital Los Angeles, Los Angeles, CA
2004	Affiliates Award for excellence In clinical care as a General Pediatrics Resident	Children's Hospital Los Angeles, Los Angeles, CA
2005	Annual Fellow Teaching Award	Children's Hospital Los Angeles, Los Angeles, CA
2008 & 2011	Annual Faculty Teaching Award	Pediatrics Department, Keck School of Medicine at U.S.C.
2012	Recognition Award for Establishing Dietary Epilepsy Program at LAC+USC Center	The Charlie Foundation to Help Cure Pediatric Epilepsy
2014	Passionate Performance Award For establishing a "regionally Recognized Pediatric Epilepsy Program" at LAC+USC Center	Los Angeles County Department of Health Services
2014	Honorary Faculty Member	USC Gamma Chapter of Alpha Omega Alpha (AOA) Honor Medical Society, Keck School of Medicine of U.S.C.
2016	Annual Faculty Teacher of the Year Award	Neurology Department, Keck School of Medicine at U.S.C.

TEACHING**DIDACTIC TEACHING:***LAC+USC Medical Center*

<i>Year-Year</i>	<i>Course Name</i>	<i>Units/Hrs</i>	<i>Role</i>
2007-present	Pediatric Neurology Elective	N/A	Clinical Preceptor, Elective Organizer & Lecturer: update & oversee clinical curriculum and supervision of KSOM medical students, General Pediatrics, combined Med-Peds, and Neurology rotating Housestaff
2013-present	Epileptology Faculty	N/A	Clinical Preceptor & Lecturer for adult neurology epileptology fellow rotating through LAC+USC

Children's Hospital Los Angeles

<i>Year-Year</i>	<i>Course Name</i>	<i>Units/Hrs</i>	<i>Role</i>
2009-present	Rett Syndrome Clinic Rotation	N/A	Clinical Preceptor & Lecturer

CME COURSES DEVELOPED*Institution*

<i>Year-Year</i>	<i>Course Name</i>	<i>Units/Hrs</i>	<i>Role</i>
USC, 2010	Van Der Meulen Epilepsy Conference	8	Faculty participant, Speaker
CHLA, 2016	Epilepsy Update Conference	8	Faculty participant, Speaker
USC, 2018	Van Der Meulen Epilepsy Conference	8	Faculty participant, Speaker

SERVICE

<i>Year-Year</i>	<i>Position, Committee</i>	<i>Organization/Institution</i>
2015	Member, Search Committee for Chair of Child Neurology at CHLA	Department of Pediatrics, Children's Hospital Los Angeles
2015-present	Faculty Member, Epilepsy Fellowship Program Evaluation Committee	KSOM at USC
2015-present	Faculty Member, Clinical Competency Committee for Epilepsy Fellowship	KSOM at USC
2017	Member, Ad Hoc Committee of Department of Neurology	LAC+USC Medical Center

DEPARTMENT SERVICE:**HOSPITAL OR MEDICAL GROUP SERVICE:**

<i>Year-Year</i>	<i>Position, Committee</i>	<i>Organization/Institution</i>
2007-present	Member of Fetus, Infant & Child Ethics Committee	LAC+USC Medical Center
2007-present	Faculty Member, Comprehensive Epilepsy Program	U.S.C., LAC+USC, & Rancho Los Amigo Medical Center
2015-present	Panelist, Qualification & Appraisal Panel	LAC+USC Medical Center

CONSULTANTSHIPS AND ADVISORY BOARDS:

<i>Year</i>	<i>Position, Board</i>	<i>Organization/Hospital/School, Institution</i>
2008-present	Member, Professional Advisory Board	Epilepsy Foundation of Greater Los Angeles
2010-present	Neurology Consultant	Rett syndrome clinic, CHLA
2014-present	Neurology Consultant	San Gabriel-Pomona Regional Center
2011	Invited Participant, Questcor Virtual Advisory Board	Questcor Pharmaceuticals
2013	Invited Participant, Trokendi Regional Advisory Board	Supernus Pharmaceuticals
2014	Invited Participant, Onfi Advisory Board	Lundbeck Pharmaceuticals

PROFESSIONAL SOCIETY MEMBERSHIPS:

<i>Year- Year</i>	<i>Society</i>
2004-present	American Academy of Neurology
2004-present	Child Neurology Society of North America
2009-present	American Epilepsy Society
2014-present	Alpha Omega Alpha Medical Honor Society

ADMINISTRATIVE SERVICE/MAJOR LEADERSHIP POSITION:

<i>Year</i>	<i>Position</i>	<i>Narrative listing Accomplishments- or add appendix</i>
2007-present	Director	Director of Division of Child Neurology at LAC+USC. Established and continue to oversee clinical, academic, and educational goals and services of this Division. Established pediatric EEG monitoring, dietary therapy, and neurostimulation access programs at LAC. Collaboration with USC Comprehensive Epilepsy Center & CHLA Leading efforts to recruit more pediatric neurology faculty at LAC.

COMMUNITY SERVICE:

<i>Year-Year</i>	<i>Position</i>	<i>Organization/Institution, City,</i>	<i>Role or Activity</i>
2008-present	Member	Epilepsy Foundation of Greater Los Angeles	Member of Professional Advisory Board, Invited Speaker at multiple annual "Care & Cure" fundraising events for pediatric epilepsy
2007	Participant	Armenian Medical World Congress	Travelled to Armenia and Karabagh with Dr. Berge Minassian and provided clinical care and educational support
2010	Medical Expert	Epilepsy California	Testified at California State Senate Health Committee regarding use of Diastat Acudial (rectal diazepam) as abortive therapy for students with epilepsy. Bill SB 1051
2011	Medical Expert	Epilepsy California	Testified at California State Senate Education Committee regarding use of Diastat Acudial as abortive therapy for students with epilepsy.
2011	Medical Expert	Epilepsy California	Spoke at California Board of Education meeting regarding implementation of Bill SB 1051.
2012-present	Medical Expert	Rett Syndrome Clinic, CHLA	Spoke as expert at various fundraising events sponsored by International Rett Syndrome Foundation & Rett Syndrome Research Trust
2015-present	Co-creator & participant	"Carley's Carbless Kitchen" monthly classes	Interactive cooking class open to the public and co-sponsored by Carley Eissman Foundation, Wellness Center

RESEARCH AND SCHOLARSHIP**MANUSCRIPT REVIEW:**

<i>Year-Year</i>	<i>Journal</i>
2010	The International Journal of Neuroscience
2010	Current Eye Research
2010	Neuropsychiatric Disease and Treatment
2011	Journal of Paediatrics and Child Health
2011-2014, 2017	Pediatrics
2013	Epilepsia
2015, 2017	Journal of Child Neurology
2017	Epileptic Disorders

MAJOR AREAS OF RESEARCH INTEREST

Research Areas

1. Pediatric Epilepsy, including treatment, comorbid conditions
2. Rett Syndrome
3. Ketogenic Diet applications
4. Modified Atkins Diet/MCT oil Diet for adults with intractable epilepsy

GRANT SUPPORT - CURRENT:*Grant No.* 003426-00003 (PI) (Toni Frederick, Ph.D.)*Dates of Award:* 8/2015 – present*Agency:* Eunice Kennedy Shriver National Institute of Child Health and Human Development *Percent Effort:* 2%*Title:* Surveillance Monitoring for ART Toxicities Study in HIV-uninfected Children Born to HIV-infected Women (SMARTT study)*Description:* conduct & document neurological consultations for affected subjects*Role:* Neurology Consultant at LAC+USC Medical Center & Keck Medical Center of U.S.C.*Total Direct Costs:* \$499,553*Grant No. (PI) (Saman Hazany, M.D.)**Dates of Award:* 8/2015 – present*Agency:* USC Department of Neuroimaging*Percent Effort:* 10%*Title:* Ketogenic Diet Neuroimaging Study*Description:* We are conducting a pilot study to investigate the potential neuroplasticity through detecting subtle change in structural, biochemical, and/or functional imaging indices associated with ketosis as a means of better understanding the impact of the ketogenic diet on seizure control. We plan to use a 3T GE scanner on the HSC campus, with 3D SPGR, DTI, resting state functional MRI and ASL MRI perfusion imaging.*Role:* Co-investigator at LAC+USC Medical Center and KSOM*Total Direct Costs:* only cost of 10 scans is currently covered at HCC imaging center*Grant No.* None (PI) (Arthur Partikian, M.D.)*Dates of Award:* 9/2018-8/2019*Agency:* Vitaflo (International) Ltd.*Percent Effort:* 25%*Title:* A pilot study on the feasibility and tolerability of Betaquik®, a special medical food containing medium chain triglycerides (MCT) as an adjunct to the dietary management of epilepsy and quality of life in adults on the modified Atkins diet (MAD)*Description:* This is an investigator-initiated exploratory pilot study to evaluate the gastrointestinal tolerance, palatability and participant adherence, over a 26 week period, of the MAD including Betaquik, for the dietary management of participants with intractable epilepsy at LAC+USC Medical Center*Role:* Primary Investigator*Total Direct Costs:* \$91,000*Grant No.* None (PI) (Said Beydoun, M.D.)*Dates of Award:* projected 4/2018-10/2019*Agency:* Pfizer*Percent Effort:* 2%*Title:* A protocol to monitor from birth to age 15 months the neurological development of infants with exposure in-utero in tanezumab clinical studies at all investigational sites*Description:* This is a multicenter, prospective, cohort study with enhanced physical and neurodevelopmental surveillance to characterize the neurological outcomes related to the development of infants up to the age of 15 months, who were exposed to tanezumab (a humanized IgG2 monoclonal antibody to Nerve Growth Factor), placebo or comparator via maternal exposure at conception or in-utero in any tanezumab clinical study. The post-natal monitoring will include assessments at birth (0-2 months), approximately 8 months and approximately 15 months of age and up to a maximum of 36 months of age as needed.**GRANT SUPPORT - PENDING:***Role:* Primary Investigator

Total Direct Costs: under discussion

*Grant No. N/A (PI) (Arthur Partikian, M.D.)
Agency: undetermined*

*Dates of Award: projected 2019
Percent Effort: 25%*

Title: A pilot study on the feasibility, safety and tolerability of ketogenic diet therapy for severe traumatic brain injury in children.

Description: This is a pilot study to evaluate the feasibility of implementation, safety and tolerability of ketogenic diet therapy for severe traumatic brain injury in children admitted to the pediatric intensive care unit at LAC+USC Medical Center.

Role: Primary Investigator

Total Direct Costs: \$200,000 (estimate)

GRANT SUPPORT - PAST:

Grant No. None (PI) Arthur Partikian

Dates of Award: 6/2014-6/2015, renewed in 2016

Agency: The Carley Eissman Foundation

Percent Effort: 10%

Title: The Dietary Therapy Program for Children & Adults with Epilepsy

Description: Programmatic gift which provides support for Ketogenic Dietician and extends reach of our dietary program to families with both public and private forms of insurance at Keck Medical Center of USC and LAC+USC Medical Center

Role: P.I. and Medical Director of Dietary Program at LAC+USC Medical Center

Total Direct Costs: \$29,100 annually, renewed once in January 2016

Grant No. EFGLA 005 (Arthur Partikian, M.D.)

Dates of Award: 9/2012-2/2014

Agency: Epilepsy Foundation of Greater Los Angeles

Percent Effort: 25%

Title: The Dietary Therapy Program for Children with Epilepsy

Description: This grant enabled the establishment of an active Dietary Therapy Program offering the classic ketogenic ratio system, modified Atkins diet, MCT oil therapy, or Low Glycemic Index Diet for children seen at the Pediatric Neurology clinic of LAC+USC Medical Center.

Role: As Medical Director & P.I., I was responsible for discussing dietary therapies in appropriate candidates, conducting diagnostic and laboratory testing to identify and prioritize patients as candidates, hiring and working with dedicated part-time Ketogenic Dietician, and for ongoing medical management of dietary patients.

Total Direct Costs: \$122,000

Grant No. None (PI) (Regina Berkovic, M.D.)

Dates of Award: 2011-2013

Agency: Questcor Pharmaceutical

Percent Effort: 2%

Title: Comparison of Monthly Pulse Acthar gel Therapy with Methylprednisolone for Long-term Treatment of Multiple Sclerosis as Add-On Therapy to Beta-Interferon

Description: assess safety and efficacy of add-on ACTHar gel injections vs. Solumedrol in patients with multiple sclerosis receiving Avonex, Betaseron, or Rebif disease-modifying agents.

Role: Member of Safety Advisory Committee

Total Direct Costs: \$125,024

INVITED LECTURES, SYMPOSIA, KEYNOTE ADDRESSES

<i>Year</i>	<i>Type</i>	<i>Title, Location</i>
2008	Invited Lecture to Neurology Department	"X-linked Adrenoleukodystrophy," Kaiser Permanente, Panorama City
2008	Invited Lecture to Student Interest Group in Neurology	"Pediatric Neurology as a field," Keck School of Medicine of U.S.C.
2008	Symposia at Epilepsy State Forum: Improving Access to Care for Children and Youth with Epilepsy in California	"Shortage of Pediatric Neurologists: Issues and Barriers." Invited by USC University Center For Excellence in Developmental Disabilities to Sacramento, CA
2007 to 2011	Invited Speaker & Panelist	"Childhood epilepsy: behavioral & neuropsychiatric connections." Annual Epilepsy Brain Storm Summit, Epilepsy Foundation of Greater Los Angeles. Los Angeles, CA.
2009	Invited Lecture	"Childhood Epilepsy: Developmental & Neuropsychiatric Connections." U.S.C. University Center for Excellence in Developmental Disabilities Grand Rounds, Los Angeles, CA.
2013	Invited Lecture	"Seizures and Movement Disorders in Rett Syndrome," Rett Syndrome Conference at Children's Hospital Los Angeles,
2015	Invited Lecture for 2 hour session	"Communication and learning in individuals with severe disabilities: From the perspective of an interprofessional Rett Syndrome (RS) consultation team." Panel Speaker for California Speech-Language-Hearing Association 2015 Annual conference, Long Beach, CA
2015	Invited Lectures	"Dietary Therapy for Epilepsy," "The U.S.C. Dietary Program," & "Neuropsychological & Developmental Impact of Childhood Epilepsy," Epilepsy Summit Los Angeles, Ketogenic Dietary Conference sponsored by Charlie Foundation & Epilepsy Foundation of Greater Los Angeles, Manhattan Beach, CA. Served as co-author for White Paper regarding this conference's proceedings
2015 & 2016	Keynote Address	"Dietary Therapy Options for Epilepsy," at Epilepsy Awareness Day Education Expo at Disneyland, Anaheim, CA
2016	Panelist	"Epilepsy Workshop," at Los Angeles Zoo, sponsored by Epilepsy Foundation of Greater Los Angeles, Burbank, CA
2017	End Epilepsy Summit	"Advances for Pediatric Epilepsies" and "Epilepsy in Rett Syndrome," sponsored by Epilepsy Foundation of Greater Los Angeles, Universal City, CA

INVITED GRAND ROUNDS, CME LECTURES

<i>Year</i>	<i>Type</i>	<i>Title, Location</i>
2008	Child & Adolescent Psychiatry Department Grand Rounds	"Leukodystrophies presenting with psychiatric manifestations," LAC+USC Medical Center
2008	Neurology Grand Rounds	"X-linked Adrenoleukodystrophy," Keck Medical Center of U.S.C.
2009	Pediatrics Grand Rounds	"Update on Infantile Spasms," LAC+USC Medical Center
2009	Neurology Grand Rounds	"Update on Infantile Spasms," Children's Hospital Los Angeles
2009	CME Lecture	"Treatment of Neonatal Seizures: out with the old and in with the new?" Academic Day Conference for Neonatologist of Southern California at Children's Hospital of Orange County, CA
2010	CME Lecture	"Epilepsy in Children and Adolescents." Van Der Meulen Conference sponsored by USC Department of Neurology, Los Angeles, CA
2010	Pediatrics Grand Rounds	"Childhood Epilepsy Syndromes and their Neurodevelopmental Impact," Children's Hospital Los Angeles
2011	Pediatrics Grand Rounds	"Childhood Epilepsy Syndromes and their Neurodevelopmental Impact," LAC+USC Medical Center
2013	CNE Lecture & Symposia	"Childhood Epilepsy and its Neuropsychiatric Impact". Plenary presentation of <i>Epilepsy Update: Students with Seizures</i> at 63 rd Annual State Conference of the California School Nurses Organization, San Diego, CA.
2014	Pediatric Grand Rounds	"Impact on Behavioral Problems on Quality of Life in Children with Epilepsy," LAC+USC Medical Center.
2015	CME Lecture	"Dietary Therapy for Epilepsy," Epilepsy Summit Los Angeles, Ketogenic Dietary Conference sponsored by Charlie Foundation & Epilepsy Foundation of Greater Los Angeles, Manhattan Beach, CA.
2015	4 CNE lectures	"Administration of Diastat & Intranasal Formulations in the Pipeline" and "Childhood Epilepsy and its Neuropsychiatric Impact." Plenary presentation at Annual State Conference of the California School Nurses Organization (CSNO) in Anaheim, CA & at Southern California Regional CSNO Annual Conference in Monrovia, CA
2015	Short Course	"Communication and Learning in Individuals with Severe Disabilities: from the perspective of an Interprofessional Rett Syndrome Consultation Team." 2015 Annual meeting of California Speech Language and Hearing Association, Long Beach, CA
2016	CME lecture	"Home & School Seizure Rescue Plans," 2016 Epilepsy Update sponsored by CHLA Epilepsy Department, Anaheim, CA
2017	CME lecture, 2 hour session	"Communication & Learning in Individuals with Severe Disabilities: Perspectives from an Interprofessional Rett Syndrome Team," at the 2017 American Speech-Language-Hearing Association national convention, Los Angeles, CA
2017	Grand Rounds	"Neurodevelopmental and Psychological Impact of Childhood Epilepsy," Grand Rounds, Neurology Department, Harbor UCLA Medical Center
2017	CE Webinar Lecture	"Refractory Epilepsy Patients: Management Options when Drugs Fail," Webinar sponsored by Nutricia Learning Center
2018	Grand Rounds	"Neurodevelopmental & Behavioral Impact of Childhood Epilepsy on Quality of Life: Beyond Seizure Control," Grand Rounds, Neurology Department, Keck School of Medicine of USC

PUBLICATIONS:**REFEREED JOURNAL ARTICLES:**

Format: Authors, Title. *Journal*. Volume #(Suppl ##):Page-Page, Year. PMID#, PMCID#, *Narrative describing personal contribution.*

Garza-Lopez R.A**, Byun D., Orellana K., **Partikian A.**, Siew D., Yu A., and Kozak J.J. 'Order-Disorder' Phenomena in a Diffusion-Reaction Model of Interacting Dipoles on a Surface. *J Chem Physics*. 103: 9413-9417, 1995. *Conducted modeling of diffusion reactions using linear algebra computer programming under supervision of college mentor.*

Partikian A., Olveczky, B, Swaminathan R. Li Y, Verkman AS.** Rapid diffusion of green fluorescent protein in the mitochondrial matrix. *Journal of Cell Biology*. 140(4):821-9, 1998. PMID: 947203. *Conducted all FRAP (fluorescence recovery after photobleaching) experiments at UCSF, assisted with manuscript preparation and poster presentation under supervision of UCSF P.I. during American Heart Association Undergraduate Research Project.*

Qiu J, Bimston DN, **Partikian A.**, Shen B.** Arginine residues 47 and 70 of human flap endonuclease-1 are involved in DNA substrate interactions and cleavage site determination. *J Biol Chem*. 5;277(27):24659-66, 2002. PMID: 11986308. *Conducted computer modeling of mutagenesis experiments impacting three-dimensional protein structure of FLAP*

endonuclease under mentorship of Dr. Shen at City of Hope Beckman Research Institute as summer research assistant. Edited manuscript for grammar and clarity.

Sun X, Wu P, Zheng L, Thrower D, **Partikian A**, Qiu J, Shen B.** Suppression of *Saccharomyces cerevisiae* rad27 null mutant phenotypes by the 5' nuclease domain of *Escherichia coli* DNA polymerase I. *Present Gen.* 41(6):379-88, 2002. PMID: 12228807. *Provided benchtop support to senior researchers under mentorship of Dr. Shen at City of Hope Beckman Research Institute as summer research assistant. Edited manuscript for grammar and clarity.*

Partikian, A** and Mitchell, WG.** Iatrogenic Botulism in a Child with Spastic Quadriplegia. *J Child Neurol.* (10): 1235-1237, 2007. PMID: 17940253. *Organized clinical data, composed and edited manuscript, served as co-first author*

Partikian, A** and Mitchell, WG.** Major adverse events associated with treatment of infantile spasms. *J Child Neurol.* 22(12):1360-1366, 2007. PMID: 18174552. *Collected and analyzed data, composed and edited manuscript, served as co-first author*

Partikian, A. and Mitchell, WG. Neurodevelopmental and Epilepsy Outcomes in a North American Cohort of Infantile Spasms Patients. *J Child Neurol.* Vol. 25, No. 4, 423-428 (2010). PMID: 19749181. *Collected and analyzed data, composed and edited manuscript, served as co-first author*

Tai WA, Sanossian N, **Partikian A**, Mogensen M, Jones J, Liebeskind DS: Multimodal Neuroimaging Extends the Time Window for Thrombolytic Treatment in Pediatric Stroke. *Journal of Pediatric Neuroradiology*, 1(2): 2012. DOI: 10.3233/PNR-2012-017. *Reviewed and edited manuscript.*

Mittal A, Mittal G. **Partikian A**, and Sanossian N. Benefits of hemispherectomy seen many years after malignant stroke in a young patient. *Frontiers of Neurology.* 3:123, 2012. PMID: 23015800. *Reviewed and edited manuscript.*

Manuscripts in the process of submission:

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Lowe JM, **Partikian A**, et al. Pilot evaluation of a MAD cooking class for patients with epilepsy and their families. Accepted for poster presentation at 6th Global Symposium on Ketogenic Therapies for Neurological Disorders, Jeju, Korea, 10/2018

MEDIA AND TELEVISION APPEARANCES:

March 20, 2008. Dan Hurley. "Neurologists' reaction varies widely to FDA safety alert on botulinum toxin for cerebral palsy." *Neurology Today*.

May 26, 2010. Steve Lopez. "Jumping down the rabbit hole in Sacramento." *Los Angeles Times*. I was interviewed regarding expert testimony I provided for the California State Senate Health Committee about the safety and efficacy of Diastat Acudial.

May 26, 2010. Jason Austell. "Could union jobs be trumping the health of children?" <http://www.nbclosangeles.com/blogs/prop-zero>.

October 18, 2016. "Rett Syndrome, a rare and devastating neurological disorder," ABC7 News segment interview, Los Angeles

Projected 2018. "Foster." My clinical interactions with in-utero amphetamine exposed infant and other foster care youth are featured in this documentary by executive producer Deborah Oppenheimer.

Deposition Testimony of Arthur Partikian, M.D. over the last four years:

Shawn Gates vs. Home Depot (Case No: CV177200), Plaintiff Attorney that retained me: Richard Staskus. Deposition in September 2015. Cases involved head trauma and epilepsy.

Jacob & Lisa Castellanos vs. Kaiser Foundation Health Plan (OIA #12809). Plaintiff Attorney that retained me: Paul Rosenfield of Gans & Rosenfield. Deposition on March 10, 2016. Case involves neonatal encephalopathy.

Ashley Taylor vs. University of Utah (Case No: 140903769). Plaintiff Attorney that retained me: James W. McConkie. Deposition on 2/24/2017. Case involves baclofen pump failure.

Tor vs. Hamzeh MD et al (Case No: 52-4850-01). Co-retained by Defense: Mark Franzen of Carroll, Kelly, Trotter, Franzen & McKenna and Curtis Holmes, II of BROBECK, WEST, BORGES, ROSA & DOUVILLE LLP. Deposition on 3/30/2017. Case involves neonatal brachial plexus injury and neonatal encephalopathy.

Isabella Juliet Madrid vs. Adventist Medical Center-Reedley et al. (Case No. 13 CECG 03829). Retained by Plaintiff Attorney Mr. Van Wagenen of Law Offices of Davis & Van Wagenen located in Fresno. Deposition on 4/27/2017

All Trial Testimony:

Tor vs. Hamzeh MD et al (Case No: 52-4850-01). Retained by Defense: Curtis Holmes, II of BROBECK, WEST, BORGES, ROSA & DOUVILLE LLP. Trial testimony on 5/8/2017 at the Superior Court of Orange County, Santa Ana, CA. Case involves neonatal brachial plexus injury and concern for neonatal encephalopathy.