Orwa Aboud, MD, PhD

POSTGRADUATE TRAINING

Neuro Oncology Clinical/Research Fellowship:

07/01/2017- 6/30/2020

Clinical/Research fellowship, Johns Hopkins/National institute of Health joint program

Neurology Residency:

07/01/2014- 6/30/2017

Clinical Residency, Neurology, University of Arkansas for Medical Sciences, Little Rock, Arkansas

Neurology Internship:

07/01/2013-6/30/2014

Clinical Internship, Neurology, University of Arkansas for Medical Sciences, Little Rock, Arkansas

DEGREE-GRANTING EDUCATION

Neurology Board Certification:

9/11/2017

American board of psychiatry and neurology

Doctor of Philosophy:

8/15/2011-5/18/2013

Neurobiology and Developmental Sciences, University of Arkansas for Medical Sciences, Little Rock, Arkansas Thesis entitled "The influence of *APOE* Genotype on Cellular and Molecular Responses in Epilepsy."

Medical School Institution:

9/15/2000-7/1/2007

University of Damascus, College of Medicine, Damascus, Syria Thesis entitled "Neurological Clinical Exam."

ACADEMIC APPOINTMENTS

Assistant professor:

8/1/2020- present

Department of Neurology and Neurological Surgery University of California, Davis

CURRENT HOSPITAL APPOINTMENT

UC Davis Medical Center

8/1/2020- present

<u>CREDENTIALS</u>

California Medical License Maryland Medical License

8/2020

5/2017

BLS/ACLS Certification renewal Arkansas Medical License ECFMG Certificate	5/2017 4/2014 2/2009
HONORS AND AWARDS	
2017 Resident of the year Award: University of Arkansas for Medical Sciences, Little Rock, Arkansas	6/30/2017
Jess R. Nickols Award: Department of Veterans Affairs, Central Arkansas Veterans Healthcare system, Little Rock, Arkansas	6/30/2017
AAN 2016 Travel Award: Resident travel award to attend the American Academy of Neurology's (AAN) 2016 Annual Meeting	1/2016
Best Scientific Poster Award: University of Arkansas for Medical Sciences, Little Rock, Arkansas. Third Annual Sami Harik Resident Research Day, April 2015.	4/2015
Travel Award: Curing the epilepsies: pathways forward (NINDS) 2013 Meeting, National Institutes of Health, Bethesda, Maryland	4/2013
Travel Award: Experimental Biology (EB2013) 2013 meeting; Boston, Massachuse	4/2013 etts
Second on the Group Award: Ministry of Education, Swaida Directorate. Swaida, Syria	7/2000
PROTOCOLS AND CLINICAL RESEARCH	
Safety of converting Glioma patients with Venous Thromboembolism from Low Molecular Weight Heparin to Apixaban.	JHH IRB00242129
Ultrastructural Implications of IDH Mutation in Glioblastoma.	JHH IRB00242997

POSTGRADUATE RESEARCH

Post-Doctoral Fellowship:

5/19/2013-6/30/2013

University of Arkansas for Medical Sciences, Little Rock, Arkansas.

A study of the role of the *APOE* genotype on the molecular and cellular events in the olfactory bulb using human brain tissue from patients Alzheimer's disease. Professor W. Sue T. Griffin

Pre-Doctoral Fellowship:

8/15/2011-5/18/2013

University of Arkansas for Medical Sciences, Little Rock, Arkansas. PhD granted May, 2013 entitled, "The influence of *APOE* Genotype on Cellular and Molecular Responses in Epilepsy." A study relating to the precocious development in epileptics of neuropathological changes noted in Alzheimer's disease, using human brain tissue from patients with intractable drug resistant epilepsy, who elected temporal lobectomy surgery. Professor W. Sue T. Griffin

Research Fellow: 7/1/2010-8/15/2011

University of Arkansas for Medical Sciences, Little Rock, AR. Studies directed toward understanding molecular and cellular interactions between neurons and glia, which relate to and promote neuroinflammatory events and their consequences in Alzheimer pathogenesis. Professor W. Sue T. Griffin

Research Fellow: 1/2/2009-7/1/2009

Roche Diagnostics, Penzberg, Germany Developing a functional screening assay for antibodies direct against β -amyloid. Cultivating and managing different cell lines (especially neuronal cells). Measuring the expression of hyperphosphorylation by western blot techniques. Brain section staining and immunohistochemical analysis Flow cytometric analysis. Professor Hans-Willi Krell

Observership: 1/2/2011- 5/18/2013

St. Vincent Infirmary Medical Center, Little Rock, Arkansas Neuroscience research in the surgical lab, Arkansas Neuroscience Institute ANI, specifically regarding the technique for temporal lobe resection used in the treatment for intractable epilepsy

Observership: 10/1/2008- 11/1/2008

University of Arkansas for Medical Sciences UAMS, Little Rock. The goal of this observership was to learn head and neck surgical anatomy and neurosurgical approaches in the laboratory of Professor M. Gazi Yasargil

Volunteer: 10/1/2008- 12/1/2008

University of Arkansas for Medical Sciences, Little Rock, Arkansas. Plasmid purification of specific sequences of the human myelin proteolipid protein gene (P/p1), which encode the most abundant protein (~50%) found in myelin from the central nervous system, and mechanisms by which it is regulated

UNDERGRADUATE RESEARCH

Summer Research Assistant:

7/1/2004- 9/14/2004

National Hospital in Swaida, Swaida, Syria
This study of neural tube defects in Swaida Hospital, it showed a
close relation between maternal malnutrition and folic acid
deficiency and the incidence rate of neural tube defects, in addition
supported the fact of increased incidence of neural tube defect
among subsequent pregnancies in a family with a history of a child
with this deformity

Summer Research Assistant:

7/1/2002-9/14/2002

National Hospital in Swaida, Swaida, Syria This study assesses of risk factors related to the increased incidence of brain tumors in Southern Syria, it showed increased rate of malignant brain tumors among the population living near high power lines, given the existence of familial brain tumors which appeared to be a common entity among our population.

TEACHING:

ABTC Consortium Winter Meeting Johns Hopkins Medical Center.	1/23/2020
Management of Glioblastoma in the elderly Johns Hopkins Medical Center, Medical Oncology.	1/17/2020
Neurological Complication of Cancer Johns Hopkins Medical Center, Department of Neurology.	8/23/2019
NIH Ependymoma International Workshop National Institutes of health, Neuro-Oncology Branch.	2/21/2019
NCI-Connect Oligodendroglioma Workshop National Institutes of health, Neuro-Oncology Branch.	11/19/2018
NCI-Connect Histone Mutated Midline Glioma Workshop National Institutes of health, Neuro-Oncology Branch.	9/27/2018
Inaugural BTTC/NCI-Connect Journal Club National Institutes of health, Neuro-Oncology Branch.	8/28/2018

Medical Oncology Walk Round National Institutes of health, Medical Oncology Department.	4/6/2018	
World Health Organization New CNS classification National Institutes of health, National Cancer Institute.	4/5/2018	
Cognition in Neurological exam University of Arkansas for Medical Sciences	10/18/2016	
Neuroinfectious emergencies in Neurology University of Arkansas for Medical Sciences	8/22/2016	
Lumbar puncture demonstration for Medical Students University of Arkansas for Medical Sciences	11/23/2015	
Multiple Sclerosis Neurology Residents Teaching Series, University of Arkansas for Medical Sciences	9/2/2015	
Midbrain, Anatomy of the Brainstem Neurology Residents Teaching Series, University of Arkansas for Medical Sciences	8/14/2015	
Update on Myasthenia Gravis, Journal Club Neurology Residents Teaching Series, University of Arkansas for Medical Sciences	5/11/2015	
Management of Acute Ischemic Stroke Neurology Residents Teaching Series, University of Arkansas for Medical Sciences	9/2/2015	
University of Arkansas for Medical Sciences 7/1/20 Training graduate students and summer medical students in basic laboratory techniques	10-6/30/2013	
EDUCATIONAL COURSES:		
Principles of Clinical Pharmacology Course: National Institutes of Health Clinical Center	2017- 2018	
Principles and Practice of Clinical Research Course: National Institutes of Health Clinical Center	2017- 2018	
21st SNO Annual Scientific Meeting: 11/26 Society for Neuro Oncology Served as a meeting Monitor	016- 12/2016	

Vascular Techniques for Senior Residents:

11/2012- 12/2012

Medical Education and Research Institute, Memphis, Tennessee

Microanatomical dissection course:

10/2011- 10/2011

Arkansas Neuroscience Institute, Little Rock, Arkansas

Neurosurgery for the ER physician:

5/2011- 5/2011

Neurosurgery for the ER physician

Microanatomical course:

4/2011- 5/2011

Arkansas Neuroscience Institute, Little Rock, Arkansas

PUBLICATIONS:

Peer Reviewed Journal Articles:

- 1. Rowe L, Vera E, Acquaye A, Crandon S, Shah V, Bryla C, Wu J, Wall K, Siegel C, Reyes J, Penas-Prado M, Leggiero N, Cordova C, Burton E, Antony R, Boris L, **Aboud O**, Vyas Y, Mathen P, Gilbert M, Camphausen K, Mendoza T, Armstrong T. "The prevalence of altered body image in patients with primary brain tumors: an understudied population". Journal of Neuro-Oncology. 2020, February 24.
- 2. Ahsan B, Aldwaikat A, **Aboud O**, Ramadan A, Abu-Asab MS. "Retinal and choroidal capillaries contribution to age-related macular degeneration (AMD) phenotypes in murine models of the disease". Journal of Ultrastructural Pathology. 2020 Feb 21:1-8.
- 3. Theeler B, Dalal Y, Monje M, Shilatifard A, Suvà A, **Aboud O**, Camphausen K, Cordova C, Finch E, Heiss J, Packer R, Romo C, Aldape K, Penas-Prado M, Armstrong T, Gilbert M. "Comprehensive Oncology Network Evaluating Rare CNS Tumors. Histone Mutated Midline Glioma Workshop Proceedings" Journal of Neuro-Oncology Advances. 16 January 2020.
- 4. Penas-Prado M, Wu J, Cahill D, Brat D, Costello J, Kluetz P, Cairncross J, Van den Bent M, Verhaak R, **Aboud O**, Burger P, Chang S, Cordova C, Huang R, Rowe L, Taphoorn M, Gilbert M, Armstrong T. "*Proceedings of the Comprehensive Oncology Network Evaluating Rare CNS Tumors (NCI-CONNECT) Oligodendroglioma Workshop*". Journal of Neuro-Oncology Advances. 06 December 2019.
- 5. **Aboud O**, Al-Salaimeh A, Raina SK, Sahaya K, Hinduja A. "*Positive clinical signs in neurological diseases-An observational study*". Journal of Clinical Neuroscience. 2018 November 19.

- 6. **Aboud O**, Aboud T, Janjua BM, Raja A. "*Image-Guided Spinal Navigation for C1-C2 Instrumentation: Part I*". Contemporary Neurosurgery. 2015 March 30; 37(6):1-5
- 7. **Aboud O,** Parcon P, DeWall KM, Liu L, Mark RE, Griffin WST. 2015 "Aging, Alzheimer's, and APOE genotype influence the expression and neuronal distribution patterns of microtubule motor protein dynactin-P50". Frontiers Cell NeuroSci, 2015 Mar 25;9:103.
- 8. Zawada MW, Mrak RE, Biedermann J, Palmer QD, Gentleman SM, **Aboud O**, Griffin WST. 2015 "Loss of angiotensin II receptor expression in dopamine neurons in Parkinson's disease correlates with neuropathological progression and is accompanied by increases in Nox4- and 8-OH guanosine-related nucleic acid oxidation and caspase-3 activation" Acta Neuropathologica Communications, 2015 Feb 3;3 (1):9.
- 9. **Aboud O**, Griffin ST. "Silver Staining of Alzheimer's Disease". Journal of neurological disorders. 2014 October 28; 2(6).
- 10. **Aboud O,** Griffin WST, Mrak RE, Boop FA. 2013 Epilepsy: "neuroinflammation, neurodegeneration, and APOE genotype" Acta Neuropathologica Communication, 2013 Jul 29;1(1):41
- 11. **Aboud** O, Mrak RE, Boop FA, Griffin WST. 2012 "Apolipoprotein epsilon 3 alleles are associated with indicators of neuronal resilience". BMC Medicine 2010 April 13; 10:35.
- 12. Liu L, **Aboud O**, Jones RA, Mrak RE, Griffin ST, Barger SW: "Apolipoprotein E expression is elevated by interleukin 1 and other interleukin 1-induced factors". J Neuroinflammation 2011, 8(1):175.

Platform Presentation:

- 1. "Phas I trial of TG02 plus dose-dense or metronomic temozolomide for recurrent high-grade astrocytoma in adults" Wu J, Bryla C, Su Y, Grajkowska E, McCoy A, Boris L, Antony R, Garren N, Siegel C, Cordova C, **Aboud O**, Vera E, Lawhon T, Penas-Prado M, Theeler BJ, Mendoza T, Armstrong T, Yuan Y, and Gilbert M. (November 2019). Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 2. "The importance of sleep disturbance in primary brain tumor (PBT) patients: Clinical characteristics & Co-occurrence with tumor-rekated & psychological symptoms" King A, Shuboni-Mulligan D, Vera E, Crandon S, **Aboud O**, Antony R, Boris L, Bryla C, Burton E, Cordova C, Gartland C, Grajkowska E, Penas-Prado M, Reyes J, Leggiero N, Siegel C, Theeler BJ, Wall K, Wu J, Gilbert M,

- and Armstrong T. (November 2019). Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 3. "Evaluating clinical impact utilizing the RANO-PRO Collaborative's standardized priority constructs" Vera E, Gilbert M, Aboud O, Antony R, Boris L, Bryla C, Burton E, Cordova C, Crandon S, Leggiero N, Penas-Prado M, Reyes J, Siegel C, Theeler BJ, Wall K, Wu J, and Armstrong T. (November 2019). Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 4. "Diffuse Midline and Histone-Mutated Gliomas in Adults: Clinical, Molecular and Radiographic Features" **Aboud O**, Vera E, Aldape K, Armstrong T, Briceno N, Chung HJ, Cordova C, Crandon S, Ji M, Levine J, Patel S, Penas-Prado M, Quezado M, Raffeld M, Ray-Chaudhury A, Reyes J, Siegel C, Wu J, Xi L, Gilbert M, and Theeler B. American Academy of Neurology 2019; Philadelphia, PA.
- 5. "Association between body image investment and alteration in patients with primary brain tumors" Mathen P, Armstrong T, Vera E, Acquaye A, Crandon S, Fletcher M, **Aboud O**, Boris L, Brown M, Garren N, Ji M, Levine J, Mackey M, Romo C, Reyes J, Siegel C, Smart D, Wu J, Gilbert M, Camphausen K, Mendoza T, Rowe L. Society of NeuroOncology SNO 2018; New Orleans, LA.
- 6. "Characterization of symptom burden in minority patients with CNS tumors: a report from the neuro-oncology branch (NOB) natural history study (NHS)" Crandon S, Vera E, Acquaye A, Siegel C, **Aboud O**, Boris L, Brown M, Garren N, Ji M, Levine J, Romo C, Reyes J, Wu J, Gilbert M, Armstrong T. Society of NeuroOncology SNO 2018; New Orleans, LA.
- 7. "Patient reported outcomes measurement information system (PROMIS) screening for anxiety & depression in central nervous system (CNS) cancer: large cohort report from the Neuro-Oncology brain natural history study (NOB-NHS)" Garren N, Vera E, Aboud O, Acquaye A, Boris L, Brown M, Crandon S, Ji M, Levine J, Romo C, Reyes J, Siegel C, Wu J, Gilbert M, Armstrong T. Society of NeuroOncology SNO 2018; New Orleans, LA.

Poster Presentation:

- Aboud O, Gilbert M, Armstrong T, Vera E, Wu J, Wall K, Theeler BJ, Siegel C, Reyes J, Leggiero N, Crandon S, Cordova C, Boris L, Bryla C, Burton E, Antony R, Quezado M, Shah R, Penas-Prado M. (November 2019). "Challenges of imaging interpretation to predict Oligodendroglioma grade" Poster presented at: Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 2. Cordova C, Vera E, **Aboud O**, Antony R, Boris L, Bryla C, Burton E, Crandon S, Leggiero N, Reyes J, Siegel C, Theeler BJ, Vyas Y, Wall K, Wu J, Gilbert M, Armstrong T, and Penas-Prado M. (November 2019). "MRI Findings at

- Progression in Adult Patients with Medulloblastoma" Poster presented at: Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 3. Vyas Y, Vera E, Bryla C, Crandon S, Wu J, Wall K, Theeler BJ, Siegel C, Reyes J, Penas-Prado M, Leggiero N, Cordova C, Burton E, Antony R, Boris L, **Aboud O**, Gilbert M, and Armstrong T. (November 2019). "Association of common patient-reported immunotherapy symptomatic side effects and pseudoprogression in patients with primary central nervous system (CNS) tumors" Poster presented at: Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 4. Siegel C, Raygada M, Acquaye A, Stearn S, Wall K, Crandon S, Stevens-Brown K, Wu J, Vera E, Theeler BJ, Reyes J, Leggiero N, Cordova C, Bryla C, Burton E, Boris L, Antony R, Ani T, Aboud O, Armstrong T, Gilbert M, and Penas-Prado M. (November 2019). "Improving care for adult patients with rare CNS tumors: The National Cancer Institute-Comprehensive Oncology Network Evaluating Rare CNS Tumors (NCI-CONNECT) program and clinic" Poster presented at: Society of NeuroOncology SNO 2019; Phoenix, AZ.
- 5. **Aboud O,** Al Salaimeh A, Hinduja A. (May 2019). "Positive signs in Organic Neurological Diseases". Poster presented at: American Academy of Neurology 2019; Philadelphia, PA.
- 6. Aboud O, Raffeld M, Brown J, Sabersky A, Briceno N, Brown M, Chung HJ, Crandon S, Ji M, Levine J, Patel S, Reyes J, Siegel C, Vera E, Xi L, Nduom E, Quezado M, Ray-Chaudhury A, Lopes O, Armstrong T, Gilbert M, Theeler B. (November 2018). "Mutations in MAPK Pathway Genes Are Characteristic and Confirmatory of Multinodular and Vacuolating Neuronal Tumor of the Cerebrum" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6217702
- 7. Boris L, Bryla C, Vera E, **Aboud O,** Garren N, Park D, Siegel C, Theeler B, Wu J, Armstrong T, Gilbert M. (November 2018). "A Descriptive Report of Patients with Rare Central Nervous System (CNS) Cancers on an Nci-connect Cancer Moonshot Immune Checkpoint Inhibitor Trial" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. **PMC:6217685**
- 8. Briceno N, Crandon S, Vera E, Siegel C, **Aboud O,** Brown M, Chung HJ, Ji M, Levine J, Patel S, Reyes J, Raffeld M, Gilbert M, Xi L, Armstrong T. (November 2018). "Nucleic Acid Adequacy from Archived Formalin-fixed Paraffin Embedded (FFPE) Tumor Tissue for Next-generation Sequencing (NGS) in National Cancer Institute (NCI)- natural History Study (NHS) of Primary CNS Tumor" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. **PMC:6217206**
- 9. Giles A, Vezina A, Acquaye A, Fletcher M, **Aboud O**, Hutchinson MK, Lugo M, Reid C, Sonnemann H, Yang L, Gilbert M, Armstrong T. (November 2018). "The Neuro-oncology Branch Translational Research Immersion Program: Results

- from Two Years of Development and Participant Feedback" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6217156
- 10. Schreck K, Vera E, Aboud O, Acquaye A, Boris L, Briceno N, Brown M, Chung HJ, Crandon S, Ji M, Levine J, Patel S, Quezado M, Raffeld M, Reyes J, Romo C, Siegel C, Theeler B, Xi L, Gilbert M, Grossman S, Armstrong T, Wu J. (November 2018). "The Natural History of braf v600e-mutated Glioblastomas in Adults" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6216675
- 11. Siegel C, Aboud O, Brown M, Chung HJ, Raffeld M, Crandon S, Ji M, Levine J, Vera E, Patel S, Reyes J, Armstrong T, Xi L, Acquaye A, Boris L, Briceno N, Garren N, Romo C, Quezado M, Wu J, Theeler B, Gilbert M. (November 2018). "Utilizing Next Generation Sequencing Reports in Clinical Decision Making: Report from the National Institutes of Health (NIH) Neuro-oncology Branch (NOB) Natural History Study (NHS) Primary Brain Tumor Panel (PBTP)" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6216959
- 12. Rowe L, Vera E, Acquaye A, Crandon S, Fletcher M, Aboud O, Boris L, Brown M, Garren N, Ji M, Levine J, Mackey M, Mathan P, Romo C, Reyes J, Siegel C, Smart D, Wu J, Gilbert M, Camphausen K, Mendoza T, Armstrong T. (November 2018). "Body Image Disturbance in Patients with Primary Brain Tumors" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6217478
- 13. Acquaye A, Vera E, Aboud O, Armstrong T, Boris L, Brown M, Crandon S, Garren N, Ji M, Levine J, Romo C, Reyes J, Siegel C, Wu J, Mackey M, Camphausen K, Mathan P, Smart D, Fletcher M, Mendoza T, Gilbert M, Rowe L. (November 2018). "Preliminary Examination of Confirmed Glioma Risk Factors Among Ependymoma Patients in the Neuro-oncology Branch Natural History Study (NOB-NHS) and Risk and Outcomes Study (ROS)" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PCM:6217488
- 14. Acquaye A, Armstrong T, Vera E, Crandon S, Fletcher M, Aboud O, Boris L, Brown M, Garren N, Ji M, Levine J, Romo C, Reyes J, Siegel C, Wu J, Gilbert M, Scheurer M. (November 2018). "Capturing the Primary Brain Tumor (PBT) Patient's Experience of Body Image Dissatisfaction: Report from the Neuro-oncology Branch-natural History Study (NOB-NHS)" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6217489
- 15. Garren N, Vera E, **Aboud O**, Acquaye A, Boris L, Brown M, Crandon S, Ji M, Levine J, Reyes J, Romo C, Siegel C, Wu J, Gilbert M, Armstrong. (November 2018). "Patient reported outcomes measurement information system (PROMIS) screening for anxiety & depression in central nervous system (CNS) cancer: Large cohort report from the neuro-oncology branch natural history study (NOB-

- *NHS*)" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. **PMC:6217497**
- 16. Mathen P, Armstrong T, Vera E, Acquaye A, Crandon S, Fletcher M, Aboud O, Boris L, Brown M, Garren N, Ji M, Levine J, Mackey M, Romo C, Reyes J, Siegel C, Smart D, Wu J, Gilbert M, Camphausen K, Mendoza T, Rowe L. (November 2018). "Association between body image investment and alteration in patients with primary brain tumors" Poster presented at: Society of NeuroOncology SNO 2018; New Orleans, LA. PMC:6217485
- 17. **Aboud O,** Al Salaimeh A, Sahaya K, Hinduja A. (April 2017). "Followup on Discrepant Clinical Signs among Patients with Organic Neurological Diseases". Poster presented at: American Academy of Neurology AAN 2017; Boston, MA.
- 18. **Aboud O,** Kumbham P, Angtuaco E, Gundogdu B. (April 2016). "A Case of Unusual Complication of Deep Brain Stimulator". Poster presented at: UAMS Neurology Fourth Annual Sami Harik Resident Research Day; Little Rock, AR.
- 19. **Aboud O,** Willaims H, Gundogdu B. (February 2016). "Rare Case of Neutral Lipid Storage Disease with Myopathy with Mutation in PNPLA2". Poster Accepted: Carrell-Krusen Neuromuscular Symposium, 2016; Dallas, TX.
- 20. **Aboud O,** Al Salaimeh A, Sahaya K, Hinduja A. (April 2015). "Discrepant Clinical Signs among Patients with Organic Neurological Diseases". Poster presented at: American Academy of Neurology AAN 2015; Washington, DC.
- 21. Parcon P, **Aboud O**, Biedermann J, Mrak R, Griffin S. (April 2015). "*Alzheimer's is associated with neuropathological changes in olfactory bulb that are related to APOE genotype*". Poster presented at: UAMS Neurology Third Annual Sami Harik Resident Research Day, Little Rock, AR.
- 22. **Aboud O,** Al Salaimeh A, Sahaya K. Hinduja A. (April 2015). "Discrepant Clinical Signs among Patients with Organic Neurological Diseases". Poster presented at: UAMS Neurology Third Annual Sami Harik Resident Research Day, Little Rock, AR.
- 23. Parcon P, **Aboud O**, Biedermann J, Mrak R, Griffin S. (April 2014). "Alzheimer's is associated with neuropathological changes in olfactory bulb that are related to APOE genotype". Poster presented at: Experimental Biology (EB2014) 2014 meeting; San Diego, CA.
- 24. **Aboud O**, Mrak R, Boop F, Griffin WST. (November 2013) "Neuronal stress responses are more related to APOE genotype than to stress modality or age". Poster presented at: Society for Neuroscience (SFN) 2013 meeting; San Diego, CA.

- 25. Zawada M, Mrak R, Biedermann J, Palmer Q, Aboud O, Griffin WST. (November 2013) "Angiotensin II type 1 receptor accumulates within nuclei of dopaminergic neurons in nigrosome 1, suggesting a role for nuclear oxidative stress in Parkinson's disease". Poster presented at: Society for Neuroscience (SFN) 2013 meeting; San Diego, CA.
- 26. Aboud O, Griffin S, Parcon P, Biedermann J, Mrak R. (2013, April). "The role of APOE genotype on Alzheimer's neuropathological changes in human olfactory bulb". Poster presented at: Experimental Biology (EB2013) 2013 meeting; Boston, MA.
- 27. **Aboud O**, Mrak R, Boop F, Griffin S. (2013, April). "The Influence of APOE Genotype on Neuronal Resilience in Epilepsy: Implications for Early Intervention". Poster presented at: Curing the epilepsies: pathways forward (NINDS) 2013 meeting; NIH, Bethesda, MD.
- 28. **Aboud O**, Aboud E, Krisht A. (2012, October). "Extradural origin of the ophthalmic artery: far less incidence than reported". Poster presented at: 2012 Congress of Neurological Surgeons Annual Meeting; Chicago, IL.
- 29. **Aboud O, Griffin WST**, Biedermann J, Mrak R. (2012, October) "APOE genotype influences olfactory bulb changes in Alzheimer's disease". Poster presented at: Society for Neuroscience (SFN) 2012 meeting; New Orleans, LA.
- 30. Griffin S, Aboud O, Mrak R, Boop F. (2012, October). "APOE genotype influences cellular and molecular responses in epilepsy". Poster presented at: Society for Neuroscience (SFN) 2012 meeting; New Orleans, LA.
- 31. Mrak R, Biedermann J, **Aboud O**, Griffin S, Zawada M. (2012, October). "Angiotensin II type 1 receptor associates with the nuclear pore complex in the human substantia nigra: Relevance to Parkinson's disease". Poster presented at: Society for Neuroscience (SFN) 2012 meeting; New Orleans, LA.
- 32. Mrak R, Griffin WST, Barger SW, Aboud O, Jones R, Boop F. (2011, November). "APOE genotype governs Alzheimer neuropathologies in epilepsy". Poster presented at: Society for Neuroscience (SFN) 2011 meeting; Washington, DC.
- 33. Griffin WST, Zawada M, **Aboud O,** Liu L, Barger S, Mrak R, Dewall M. (November 2011) "APOE genotype, Alzheimer neuritic pathologies, and microtubule motor proteins". Poster presented at: Society for Neuroscience (SFN) 2011 meeting; Washington, DC.
- 34. Griffin S, Aboud O, Jones R, Mrak R, Boop F, Barger S. (2011, March). "Epilepsy: A Model for Studying Early Events in the Evolution of Alzheimer's

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disease And Parkinson's disease". Poster presented at: The Tenth International Conference on Alzheimer's disease and Parkinson's disease; Barcelona, Spain.

Oral Presentation

- 1. **Aboud O.** (November 12. 2019) UC Davis Neurology Grand Round, Department of Neurology, University of California Davis, "Lost in Mutation, Diffuse Midline and Histone-Mutated Gliomas".
- 2. **Aboud O.** (September 2. 2016) UAMS Neurology Grand Round, Department of Neurology, University of Arkansas for Medical Sciences (UAMS), "Interpretation of Neurological Autoimmune Antibody Profile".
- 3. **Aboud O.** (March 18. 2016) UAMS Neurology Grand Round, Department of Neurology, University of Arkansas for Medical Sciences (UAMS), "Olfactory Bulb: the portal to neuropathogenesis".
- 4. **Aboud O.** (October 6. 2015) UAMS Med Path, Department of Internal Medicine, University of Arkansas for Medical Sciences (UAMS), "*Progressive Supranuclear Palsy*".
- 5. **Aboud O.** (April 10. 2015) UAMS Neurology Third Annual Sami Harik Resident Research Day, Department of Neurobiology and developmental Sciences, University of Arkansas for Medical Sciences (UAMS), "Alzheimer's is associated with neuropathological changes in olfactory bulb that are related to APOE genotype".
- 6. **Aboud O.** (April 15. 2013) Ph.D, Defense presentation, Department of Neurobiology and developmental Sciences, University of Arkansas for Medical Sciences (UAMS), "The influence of APOE genotype on cellular and molecular responses in epilepsy"
- 7. **Aboud O.** (August 8, 2012) Department of Neurological Surgery, University of Illinois at Chicago (UIC), "The influence of APOE genotype on cellular and molecular responses in epilepsy."
- 8. **Aboud O.** (May 4, 2012) Department of Neurobiology and Developmental Sciences (UAMS). "The influence of APOE genotype on cellular and molecular responses in epilepsy."
- 9. **Aboud O.** (February 21, 2012) Department of Neurobiology and Developmental Sciences, University of Arkansas for Medical Sciences (UAMS). "Apolipoprotein E expression in response to the cytokine cycle."

PROFESSIONAL ORGANIZATIONS

California Medical Society	2020- Present
Maryland Medical Society	2017- Present
Society for Neuro Oncology	2015- Present
American Academy of Neurology	2014- Present
Arkansas Medical Society	2014- Present
Society for Neuroscience	2012 - Present
American Association of Anatomists	2013- Present

PERSONAL

Language Fluency (Other than English): Arabic