# **Ernest Pedapati, MD, MS**

Associate Professor

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### **ACADEMIC APPOINTMENTS**

9/2020-present Associate Professor of Psychiatry-Clinical Affiliated. Department of Psychiatry

and Behavioral Neuroscience. University of Cincinnati, Cincinnati, Ohio.

9/2020-present Associate Professor of Pediatrics. Department of Pediatrics.

Joint appointment in Division of Psychiatry and Division of Neurology

Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio.

7/2014-9/2020 Assistant Professor of Psychiatry-Clinical Affiliated. Department of Psychiatry

and Behavioral Neuroscience. University of Cincinnati, Cincinnati, Ohio.

7/2014-9/2020 Assistant Professor of Pediatrics. Department of Pediatrics.

Joint appointment in Division of Psychiatry and Division of Neurology

Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio.

**TRAINING** 

6/2009-6/2014 Triple Board Residency (Pediatric Medicine, Child Psychiatry, and Adult

Psychiatry), Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio.

**EDUCATION** 

8/2005-6/2009 Doctor of Medicine, University of Massachusetts, Worcester, MA

8/2001-6/2002 Master of Science in Neuroscience and Behavior (thesis), University of

Massachusetts, Amherst, MA. Mentor: Nancy Forger, Ph.D.

8/1997-5/2001 Bachelor of Science in Neuroscience, Cum Laude, Honor's College,

University of Massachusetts, Amherst, MA

**RESEARCH TRAINING** 

2017-present Mentored Patient-Oriented Research Career Development Award

Primary Mentor: Donald Gilbert, MD.

Areas: 1) Human electrophysiology, 2) Biology of Fragile X syndrome, 3)

Advanced statistical and analysis methods.

Approved career development plan available on request.

2012-present 2013-present	Clinical Training in Transcranial Magnetic Stimulation with Don Gilbert, MD, MS and Steven Wu, MD. Cincinnati Children's Hospital Medical Center, Department of Pediatric Neurology. Clinical Research in Neurodevelopmental Disorders with Craig Erickson, MD, MS. Division of Psychiatry. Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio.
2015-present	Research training in human electroencephalography (EEG) research with John Sweeney, Ph.D., University of Cincinnati, Department of Psychiatry, Cincinnati, Ohio and Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio.
2011-2012	Quality Improvement Research with Shehzad A. Saeed, MD and Scott Pentiuk, MD. Department of Gastroenterology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH.
2009-2010	Clinical Research with Scott Bateman, MD. Director, Department of Pediatric Intensive Care, University of Massachusetts Medical School, Amherst, MA.
2002-2004	Basic Science Research including animal electrophysiology investigating properties of investigational compounds with Michael Carr, PhD. UCB Research, Inc. Cambridge, MA.
2000-2002	Basic Science Research including histological and molecular techniques with Nancy Forger, PhD. Department of Neuroendocrine studies. University of Massachusetts, Amherst, MA.

# **CLINICAL APPOINTMENTS**

2014-present	Medical Staff, Cincinnati Children's Hospital Medical Center, Department of Pediatrics, Division of Child & Adolescent Psychiatry.
2014-present	Attending Psychiatrist, Cincinnati Children's, Division of Psychiatry, Resident Psychopharmacology – Neurodevelopmental Disorders.
2014-present	Consultant Psychiatrist, Cincinnati Children's, Division of Psychiatry, Fragile X Syndrome Specialty Clinic.
2017-present	Consultant Psychiatrist, Cincinnati Children's, Division of Neurology, Tuberous sclerosis Interdisciplinary Clinic.
2018-present	Consultant Psychiatrist, Cincinnati Children's, Division of Human Genetics, RASopathy Interdisciplinary Clinic.

# **ACADEMIC TEACHING AND SUPERVISION**

Current/Past Mentees/Advisees/Supervision

Mentee/Advisee	Description of Involvement	Current Position
Sam Badran, MD	Resident research, Recipient of AACAP	Child Fellow
	Pilot Award	

Joy Li, BS	Post-baccalaureate research	Post-baccalaureate
Julia Ronecker, MD	Clinical Research (TMS Research)	Triple Board Resident
Amelle Shillington, MD	Clinical Research (ADNP Syndrome)	Assistant Professor
Michael Hong, BS	Medical Student NIH Summer Scholars Program	Radiology Resident
Martine Lamy, MD, PhD	Resident Psychotherapy Supervision	Assistant Professor
Nicole Gooden, MD	Addiction Psychiatry Supervision	Psychiatrist
Kyle Cullion	Software development (VR, EEG)	Data Manager
Ellen Russo	Software development (Psychology)	UC Co-op computer science
Chao Zhu	Software development (Eye tracking)	UC Co-op computer science
Avery Dorsh	Software development (Learning games)	Perdue University Student
Lauren Schmitt, Ph.D.	Task based EEG research	Assistant Professor
Elizabeth Smith	Resting state EEG research	Assistant Professor
Rui Liu, Ph.D.	Quantitative EEG research	Research Associate
Debra Reisinger, Ph.D.	Eye tracking research	Assistant Professor
Lindsey Mooney	TMS and EEG research, current graduate student MIND institute UC Davis	Ph.D. Candidate
Corey Keeton, MD	Psychopharmacology supervision	PSY4, General Psychiatry
Kim Nguyen, MD	Psychopharmacology supervision (2017-2018	Psychiatrist
Katherine Glass, MD	Psychopharmacology supervision	Assistant Professor
Sophianne Subbiah, MD	Psychopharmacology supervision	Psychiatrist
Shafi Lodhi	Psychopharmacology supervision	Psychiatrist
Daniel Medeiros Almeida, MD	Psychotherapy supervision	Assistant Professor
Katie Richards	Psychotherapy supervision	Psychiatrist
Sophie Yu	Quantitative Research Mentor	Research Associate

# **SELECTED LECTURES TO TRAINEES (LAST 2 YEARS)**

- 2019 **Lecturer**, "Cognitive Bias and Clinical Practice," lecture presented to 4<sup>th</sup> and 5<sup>th</sup> year, Triple Board Residents
- 2018 **Lecturer**, "TMS for Major Depressive Disorder," lecture presented to 4<sup>th</sup> and 5<sup>th</sup> year, Triple Board Residents and Child Fellows

### **LICENSURE**

- 1. State Medical Board of Ohio, license number 35.099906, active
- 2. DEA registration, active in Ohio (Schedule 2, 2N, 3, 3N, 4, 5)
- 3. Buprenorphine registration (Substance Abuse and Mental Health Services Administration), active in Ohio
- 3. Diplomate (Pediatrics), American Board of Pediatrics, (2014)
- 4. Diplomate (Psychiatry), American Board of Psychiatry and Neurology, Inc., (2018)

5. Diplomate (Addiction Psychiatry), American Board of Preventative Medicine, (2018)

### CLINICAL RESEARCH PROTOCOLS & PSYCHOPHARMACOLOGIC TRIALS

### 2022

- 1. A Phase 2, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of Pimavanserin for the Treatment of Irritability Associated with Autism Spectrum Disorder. Sponsor: Acadia Pharmaceutical. **Principal Investigator.**
- 2. A Randomized, Double-Blind, Placebo-Controlled, Three-Part Study Of High And Low Dose Bpn14770 In Male Adolescents (Ages 12 To <18) with Fragile X Syndrome. Sponsor: Tetra Pharmaceuticals. **Principal Investigator.**
- 3. A Retrospective Study to Compare EarliPoint Diagnosis against the Current Expert Clinician Diagnosis (ASSURE). Sponsor: Emory University. **Principal Investigator.**
- 4. Cerebral Palsy Collaborative. Sponsor: CCHMC Academic and Research Committee ARC. Coinvestigator. Director of EEG track.

### 2021

- 5. RESTORE: Repetitive Transcranial Magnetic Symptoms in Refractory Depression in Autism Spectrum Disorders. Sponsor: CCHMC Development Award. **Principal Investigator.**
- 6. HBCD Prenatal Experiences and Longitudinal Development (PRELUDE) Consortium. Sponsor: NIDA. Co-investigator. EEG Director.
- 7. Developing Biomarkers and Treatments for ASD and I.D. in Tuberous Sclerosis Complex. Sponsor: NINDS. Co-investigator. EEG Director.

- 8. Auditory processing difficulties (APD) in children with high functioning autism spectrum disorder (ASD). Sponsor: Autism Speaks. Principal Investigator.
- 9. Circuit Disruptions Underlying Atypical Sensory Processing In Fragile X Syndrome. Sponsor: NINDS.
- 10. Network Mechanisms, Biomarkers and Pharmacology Of Fragile X Syndrome In Humans. Sponsor: NICHD.
- 11. Development of murine multielectrode array for physiological quantification of FMR1 expression of gene therapy vector. Sponsor: Forge, CCRF, Innovation Fund, FRAXA, CPG. Co-PI.
- 12. A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Phase 3 Study to Evaluate the Efficacy and Safety of OV101 in Pediatric Individuals with Angelman Syndrome Sponsor: OVID. Co-investigator.
- 13. Characterization of a clinical subpopulation with Autism Spectrum Disorder. Sponsor: Stalicla. Co-investigator.
- 14. An Open-Label Extension Study to Assess the Long-Term Safety and Tolerability of ZYN002 Administered as a Transdermal Gel to Children and Adolescents with Fragile X Syndrome -CONNECT-FX Open Label Extension (OLE) Sponsor: Zynerba. Co-investigator.
- 15. Assessing Outcomes from the Neurobehavioral Psychiatry Program: A Retrospective Chart Review. Co-investigator.

- 16. Comparison of the pharmacodynamic and tolerability profiles of minocycline versus placebo in autism spectrum disorder: a double-blind, placebo-controlled, crossover, proof-of-concept study Sponsor: Quadrant/Autism Speaks. Co-investigator.
- 17. Structural and functional neuroimaging examining the link between cognitive dysfunction and irritability. Sponsor: Internal. Co-Investigator.
- 18. A Phase 2a, Randomized, Double-Blind, Parallel-Group, Proof-of-Concept Study Evaluating the Safety, Tolerability, and Efficacy of OV101 in Fragile X Syndrome. Sponsor: OVID. Coinvestigator.
- 19. A Randomized, Double-Blind, Placebo-Controlled Multiple-Center, Efficacy and Safety Study of ZYN002 Administered as a Transdermal Gel to Children and Adolescents with Fragile X Syndrome - CONNECT-FX. Sponsor: Zynerba. Co-investigator.
- 20. Validation of A Salivary Mirna Diagnostic Test for Autism Spectrum Disorder. Sponsor: Quadrant. Co-investigator.

#### 2017

- 21. An Initial Double-Blind, Placebo-Controlled Two-Dose Crossover Study of AZD7325 in Adults with Fragile X Syndrome. Sponsor: Investigator Initiated, CCRF. Principal Investigator.
- 22. NN107 FX-LEARN: Effects of AFQ056 on Language Learning in Young Children with Fragile X Syndrome (FXS) Sponsor: NIH NeuroNext. Co-investigator.
- 23. Near-infrared Spectroscopy in Autism Spectrum Disorder exploratory evaluation of diagnostic classification and clinical outcomes. Co-investigator.

### 2016

- 24. K23: Anomalous Sensorimotor Physiology in Fragile X Syndrome. Sponsor: NIH. Principal Investigator.
- 25. A Prospective, Pivotal Double-Blinded, Within-Subject Comparison of the Social Developmental Testing Device and Current Best Practice Clinical Diagnosis for Autism Spectrum Disorder in Pediatric Subjects 16-30 Months of Age. Sponsor: Marcus Center. Principal Investigator.
- 26. Simons Foundation Powering Autism Research for Knowledge, a national cohort of individuals and families affected by Autism Spectrum Disorder Protocol. Sponsor: Simons Foundation. Co-Investigator.
- 27. GABAergic Sensorimotor Dysfunction in Tourette Syndrome. Sponsor: NIH. Co-investigator.
- 28. A Phase II Multi-Center, Randomized, Double-blind, 24-Week, 3-Arm, Parallel Group, Placebo-Controlled Study To Investigate The Efficacy And Safety Of Balovaptan (RO5285119) in Children And Adolescents Age 5-17 With Autism Spectrum Disorder (ASD). Funding: Roche. Co-investigator.
- 29. Neuroimaging in Infants with Neurodevelopmental Disorders. Co-investigator.

### 2015

30. Eye Tracking, EEG, and Transcranial Magnetic Stimulation as a Predictor of Methylphenidate (MPH) Response in Low-Functioning Autism with Attention Deficit Hyperactivity Disorder (ADHD). Sponsor: American Academy of Child and Adolescent Psychiatry Junior Investigator Award. Principal Investigator.

- 31. Mechanisms and Brain Circuits Underlying Fragile X Syndrome. Sponsor: NIH. Co-Investigator.
- 32. Evaluating the Neurophysiologic and Clinical Effects of Single-Dose Baclofen, Lovastatin, Minocycline and Placebo in Fragile X Syndrome. Sponsor: NIH Co-investigator.
- 33. Children's Autism Metabolome Project (CAMP): Development and Clinical Evaluation of the Stemina Metabolic Biomarker-Based Test to Diagnose Autism Spectrum Disorder in Early Childhood. Sponsor: Stemina. Co-investigator.
- 34. The Divisions of Psychiatry and Child Neurology Developmental Disabilities Neurophysiology Repository. Principal Investigator.
- 35. Intranasal Ketamine Use in Autism Spectrum Disorder: A Placebo-Controlled Crossover Pilot Study. Sponsor: Riovant. Co-investigator.

- 36. Autism Spectrum Disorder Diagnosis Retrospective Chart Review. Sponsor: Internal Funds. Co-Investigator.
- 37. Autism and Developmental Disorders Inpatient Research Collaborative: Phenotyping of the Severely Affected Autism Population. Co-investigator.

#### 2013

- 38. The Divisions of Psychiatry and Biostatistics and Epidemiology Developmental Disabilities Clinic Repository (DDCR): A Personalized Medicine-based Repository of Biological Samples, Genetic and Clinical Data from Individuals with Developmental Disabilities and Non-Developmentally Disabled Controls. Sponsor: CCRF. Co-investigator.
- 39. A Double-Blind, Placebo-Controlled Proof of Concept Study of Acamprosate in Youth with Fragile X Syndrome. Sponsor: John Merck. Co-investigator.

### 2012

- 40. The FXCRC FORWARD Registry and Database. Sponsor: CDC. Co-investigator.
- 41. Anomalous Motor Physiology in ADHD: Inhibitory and Reward Mechanisms. Sponsor: NIH. Coinvestigator.
- 42. Double-Blind Placebo-Controlled Study of Acamprosate in Autism. Sponsor: Autism Speaks. Co-investigator.

### 2008

43. Preliminary Investigations of Transcranial Magnetic Stimulation (TMS) as a Clinical Tool to understand Diseases and Disorders that affect the Motor System in Children. Co-investigator.

### **GRANTS & CONTRACTS**

### Pending

 NIH R01 Revised Submission (Pending Review)
 NIH/ National Institute of Child Health & Human Development
 Title: FX ENTRAIN: Perturbation of neurodynamics underlying sensory hyperarousal and statistical learning in Youth with FXS

Dates: 2022-2027

Objective: We seek to address two major causes of this discrepancy by a systematic study of the basis of individual heterogeneity and higher-level cognitive symptomatology through the application of novel analytics of transient, non-continuous events and computation modeling of empirical data and implementation of a double-blind, individualized closed-loop auditory entrainment perturbation study to isolate neural targets associated with sensory hyperarousal and statistical learning.

Role: Principal Investigator

### Current

1. NIH/National Institute of Drug Abuse

Title: 16/24 Healthy Brain and Child Development National Consortium

Dates: 2021-2026

Objective: The Healthy Brain and Child Development National Consortium (HBCD-NC) will follow 7,500 mothers and their children from 24 locations across the U.S. from before birth to 10 years of age to better understand which harmful and protective environments exert the greatest impact on child development.

Role: Co-investigator; director of EEG acquisition at CCHMC

2. Title: Cerebral Palsy Clinical and Research Collaborative.

Sponsor: CCHMC Academic and Research Collaborative (ARC)

Dates: 2021-2023

Objective: Advanced data capture and multimodal analysis to improve clinical outcomes for patients affected by cerebral palsy.

Role: Co-investigator; directory of EEG Track

3. RESTORE: Repetitive Transcranial Magnetic Symptoms in Refractory Depression in Autism Spectrum Disorders.

Sponsor: CCHMC Development Award.

Funding: \$75,000

Summary: Clinical treatment trial using theta burst stimulation for refractory depression in

ASD.

Role: Principal Investigator.

Dates: 2021-2022

4. Title: A Phase 2, Randomized, Double-blind, Placebo-controlled Study to Evaluate the Efficacy and Safety of Pimavanserin for the Treatment of Irritability Associated with Autism Spectrum Disorder.

Sponsor: Acadia Pharmaceutical.

Role: Principal Investigator

Dates: 2022-2024

5. Title: A Randomized, Double-Blind, Placebo-Controlled, Three-Part Study Of High And Low Dose Bpn14770 In Male Adolescents (Ages 12 To <18) with Fragile X Syndrome.

Sponsor: Tetra Pharmaceuticals.

Role: Principal Investigator.

Dates: 2022-2024

6. A Retrospective Study to Compare EarliPoint Diagnosis against the Current Expert Clinician Diagnosis (ASSURE). Sponsor: Emory University. **Principal Investigator.** 

### 7. NIH/National Institute of Mental Health K23

Title: Anomalous Sensorimotor Physiology in Fragile X Syndrome (K23MH112936)

Dates: 04/07/2017 - 03/31/2022

Objective: To evaluate the degree that hyperarousal and other abnormalities in cortical excitability are present, including any clinical correlates, in humans with FXS in the sensorimotor cortex through the use of human electrophysiology including transcranial magnetic stimulation and high-density EEG to measure sensorimotor and sensory circuits.

Role: Principal Investigator

### 8. National Institutes of Health/NIMH U54 Center

Title: Mechanisms and Brain Circuits Underlying Fragile X Syndrome. Fragile X U54 Center Grant (5U54HD104461)

Dates: 2020-2025

Objective: Neurophysiological (EEG) characterization of individuals with FXS including drug

challenge trials.

Role: Co-Investigator (salary support)

# 9. NIH/ National Institute of Neurological Disorders And Stroke R01

Title: Circuit Disruptions Underlying Atypical Sensory Processing In Fragile X Syndrome

Dates: 2020 to Present

Summary: we will determine the impact of sensory distractors on behavioral performance in both humans and mice using a visual discrimination task.

P.I.: Craig Erickson and Carlos Portera-Cailliau

Role: Co-investigator; (Salary Support)

## 10. NIH/ National Institute of Neurological Disorders and Stroke R01

Title: Developing Biomarkers And Treatments For ASD and ID In Tuberous Sclerosis Complex

Dates: 2020 to Present

Summary: Characterize the neurodevelopmental phenotype and to develop suitable

biomarkers predictive of ASD/ID risk, severity, and treatment response in TS.

Role: Co-investigator; Responsible for all EEG recordings at CCHMC site. (Salary support)

### 11. National Institutes of Health/National Institute of Mental Health LRP

Title: Research Loan Repayment Program

Dates: 2014 to Present

Title: Transcranial Magnetic Stimulation to measure cortical plasticity.

Role: Principal Investigator

# 12. FRAXA Fellowship Award

Dates: 2019 – present

Title: Translational Studies of FMR1 Gene Therapy for Fragile X Syndrome

Funding: \$45, 000/year x 2 years

Summary: Highly translational preclinical gene therapy study following a strategy that uses the viral vectors, murine EEG biomarkers, and delivery methods that are most likely to be successful in humans.

Role: Co-Principal Investigator, EEG data analysis at project completion

### 13. Autism Speaks / Royal Arch Mason Central Auditory Processing Pilot Award

Sponsor: Autism Speaks

Title: Neural correlates of auditory processing difficulties (APD) in children with high

functioning ASD

Funding: \$60,000 / year

Summary: EEG/MRI study examining neural correlates of listening difficulties in youth

affected by autism.

Role: Co-Principal Investigator, EEG data analysis at project end, recruitment from clinic

Dates: 2019 to Present

#### Past

1. National Institutes of Health/National Institute of Mental Health

Title: Mechanisms and Brain Circuits Underlying Fragile X Syndrome. Fragile X U54 Center Grant (5U54HD082008-02)

Dates: 2016 to 2019

Objective: Neurophysiological (EEG) characterization of individuals with FXS including drug

challenge trials.

Role: Sub-Investigator (Salary Support)

2. Center Program for Genetics Accelerator Project

Dates: 2019 - 2020

Title: FMR1 Gene Therapy for Fragile X Syndrome

Funding: \$100,000 x 1 years

Summary: Development of murine multielectrode array for physiological quantification of

FMR1 expression of gene therapy vector

Role: Co-Principal Investigator, EEG data analysis, protocol development

3. CCTST Pilot Translational Research Award

Dates: 2019 - 2020

Title: FMR1 Gene Therapy for Fragile X Syndrome

Funding: \$60,000

Summary: Development of FMR1 viral vector in murine model.

Role: Co-Principal Investigator, EEG data analysis at project end, protocol development

4. CCHMC Innovation Award

Sponsor: CCHMC Innovation Fund

Title: FMR1 Gene Therapy for Fragile X Syndrome

Funding: \$140,000 / year

Summary: Development program for novel viral vector for clinical gene therapy

Role: Co-Principal Investigator

Dates: 2019 to 2020

5. American Academy of Child & Adolescent Psychiatry Junior Investigator

Dates: 2015-2018

Title: Eye Tracking as a Predictor of Methylphenidate Response in Autism with Comorbid Attention Deficit Hyperactivity Disorder

Summary: Using high-speed eye tracking, EEG, and TMS as a predictor of methylphenidate

response in Autism.

Role: Principal Investigator

6. American Academy of Child & Adolescent Psychiatry/Lilly Pilot Research Award.

Dates: 2013-2015

Title: Cortical Plasticity in Adolescent Depression

Summary: Utilizing TMS to measure neuroplasticity biomarkers in adolescent major

depressive disorder versus healthy controls.

Role: Principal Investigator

7. Marcus Autism Center

Title: A Prospective, Pivotal Double-Blinded, Within-Subject Comparison of the Social Developmental Testing Device and Current Best Practice Clinical Diagnosis for Autism Spectrum Disorder in Pediatric Subjects 16-30 Months of Age.

Role: Principal Investigator.

Dates: 2016 to 2019

8. Children's Hospital Research Foundation Trustee Award and Proctor Scholar (TAPS)
Career Development Program

Dates: 2014-2016

Title: Cortical Plasticity and Neuromodulation of Social Cognition in Autism Spectrum

Disorders

Role: Principal Investigator

### CONSULTING, ADVISORY BOARDS, DATA SAFETY MONITORING BOARDS

- 1. Consultant, Forge Therapeutics (2021- present)
- 2. Consultant, Proctor and Gamble (2018 to 2020).
- 3. Consultant, Eccrine Systems (2019 to 2020)
- 4. Consultant, Autism Speaks (2019 to 2020)

### **AWARDS**

- 1. CCHMC Innovation Excellence Award (Fragile X Gene Therapy), 2022
- 2. CCHMC Faculty Research Team Award, 2021
- 3. Resident Supervisor of the Year Award, 2018
- 4. Developmental and Behavioral Pediatrics, Champion Award, 2017
- 5. National Institutes of Health Loan Repayment Program, 2014 present
- 6. Brian McConville, M.D. Outstanding Child & Adolescent Psychiatry Award, 2014
- 7. 19th Annual Research Colloquium for Junior Investigators Travel Award, American Psychiatric Association, 2014.
- 8. Resident Teaching Award, University of Cincinnati Medical School, 2012
- 9. Gold Foundation Humanism & Excellence in Residence Teaching Award, University of Cincinnati College of Medicine, 2011
- 10. Resident Teaching Award, Cincinnati Children's Hospital Medical Center, 2010
- 11. Leonard Tow Humanism in Medicine Award and Scholarship, University of Massachusetts Medical School, 2009.
- 12. Unsung Hero Award. University of Massachusetts Medical School, 2009.

#### **PUBLICATIONS**

(a) Peer-reviewed work

### 2022

- Pedapati EV, Schmitt LM, Liu R, Ethridge LE, Smith E, Sweeney JA, Shaffer RC, Domnick KC, Gilbert DL, Wu SW, Horn PS. Neocortical Localization and Thalamocortical Modulation of Neuronal Hyperexcitability in Fragile X Syndrome. Accepted and pending approval of final revisions Nature Communication Biology. 2022.
- 2. **Pedapati EV,** Sweeney JA, Schmitt LM, Ethridge LE, Miyakoshi M, Liu R, Smith E, Shaffer RC, Wu SW, Gilbert DL, Horn PS. Empirical Frequency Bound Derivation Reveals Prominent Mid-Frontal Alpha Associated with Neurosensory Dysfunction in Fragile X Syndrome. medRxiv. 2022 Jan 1. Preprint.
- 3. Zea Vera A, **Pedapati EV**, Larsh TR, Kohmescher K, Miyakoshi M, Huddleston DA, Jackson HS, Gilbert DL, Horn PS, Wu SW. EEG Correlates of Active Stopping and Preparation for Stopping in Chronic Tic Disorder. Brain Sciences. 2022 Feb;12(2):151.

- 4. Yurkovic JR, Lisandrelli G, Shaffer RC, Dominick KC, **Pedapati EV**, Erickson CA, Kennedy DP, Yu C. Using head-mounted eye tracking to examine visual and manual exploration during naturalistic toy play in children with and without autism spectrum disorder. Scientific reports. 2021 Feb 11;11(1):1-4.
- 5. Peterson AR, Garcia TA, Cullion K, Tiwari-Woodruff SK, **Pedapati EV**, Binder DK. Targeted overexpression of glutamate transporter-1 reduces seizures and attenuates pathological changes in a mouse model of epilepsy. Neurobiology of Disease. 2021 Sep 1;157:105443.
- 6. Smith EG, **Pedapati EV**, Liu R, Schmitt LM, Dominick KC, Shaffer RC, Sweeney JA, Erickson CA. Sex differences in resting EEG power in Fragile X Syndrome. Journal of Psychiatric Research. 2021 Jun 1;138:89-95.
- 7. Wink LK, Reisinger DL, Horn P, Shaffer RC, O'Brien K, Schmitt L, Dominick KR, **Pedapati EV**, Erickson CA. Brief Report: Intranasal Ketamine in Adolescents and Young Adults with Autism Spectrum Disorder—Initial Results of a Randomized, Controlled, Crossover, Pilot Study. Journal of Autism and Developmental Disorders. 2021 Apr;51(4):1392-9.
- 8. Miyakoshi M, Schmitt LM, Erickson CA, Sweeney JA, **Pedapati EV.** Can We Push the "Quasi-Perfect Artifact Rejection" Even Closer to Perfection?. Frontiers in Neuroinformatics. 2021:65.
- 9. Jonak CR, **Pedapati EV**, Schmitt LM, Assad SA, Sandhu MS, DeStefano L, Ethridge L, Razak KA, Sweeney JA, Binder DK, Erickson CA. Baclofen-Associated Neurophysiologic Target Engagement Across Species in Fragile X Syndrome. Research Square. Preprint.
- 10. Wink LK, Minshawi NF, Shaffer RC, Plawecki MH, Posey DJ, Horn PS, Adams R, Pedapati EV, Schaefer TL, McDougle CJ, Swiezy NB. New combination therapy helps children on the autism spectrum learn social skills.
- 11. Schmitt LM, Dominick KC, Liu R, Pedapati EV, Ethridge LE, Smith E, Sweeney JA, Erickson CA. Evidence for Three Subgroups of Female FMR1 Premutation Carriers Defined by Distinct Neuropsychiatric Features: A Pilot Study. Frontiers in integrative neuroscience. 2021;15.

- Miyakoshi M, Schmitt LM, Erickson CA, Sweeney JA, Pedapati EV. Can We Push the "Quasi-Perfect Artifact Rejection" Even Closer to Perfection?. Frontiers in Neuroinformatics. 2021 Jan 14.
- 13. Yurkovic JR, Lisandrelli G, Shaffer RC, Dominick KC, **Pedapati EV**, Erickson CA, Kennedy DP, Yu C. Examining Sustained Attention in Child-Parent Interaction: A Comparative Study of Typically Developing Children and Children with Autism Spectrum Disorder.
- 14. Lamy M, **Pedapati EV**, Dominick KL, Wink LK, Erickson CA. Recent advances in the pharmacological management of behavioral disturbances associated with autism spectrum disorder in children and adolescents. Pediatric Drugs. 2020 Jul 20:1-1.
- 15. Wink LK, Reisinger DL, Horn P, Shaffer RC, O'Brien K, Schmitt L, Dominick KR, **Pedapati EV**, Erickson CA. Brief Report: Intranasal Ketamine in Adolescents and Young Adults with Autism Spectrum Disorder—Initial Results of a Randomized, Controlled, Crossover, Pilot Study. Journal of Autism and Developmental Disorders. 2020 Jul 8:1-8.
- 16. Shillington A, **Pedapati EV**, Hopkin R, Suhrie K. Early behavioral and developmental interventions in ADNP-syndrome: A case report of SWI/SNF-related neurodevelopmental syndrome. Molecular Genetics & Genomic Medicine. 2020 Apr 10:e1230.
- Coffman MC, Shaffer RC, Schmitt LM, Dominick KC, Pedapati E, Wang A, Berry-Kravis E, Tartaglia N, Erickson CA. Examination of Correlates to Health-Related Quality of Life in Individuals with Fragile X Syndrome. Brain Sciences. 2020 Apr;10(4):213.
- Shaffer RC, Schmitt L, John Thurman A, Abbeduto L, Hong M, Pedapati E, Dominick K, Sweeney J, Erickson C. The relationship between expressive language sampling and clinical measures in fragile X syndrome and typical development. Brain Sciences. 2020 Feb;10(2):66.
- 19. Yurkovic JR, Lisandrelli G, Shaffer RC, Dominick KC, **Pedapati EV**, Erickson CA, Kennedy DP, Yu C. Examining Sustained Attention in Child-Parent Interaction: A Comparative Study of Typically Developing Children and Children with Autism Spectrum Disorder.
- 20. Schmitt LM, Wang J, **Pedapati EV**, Thurman AJ, Abbeduto L, Erickson CA, Sweeney JA. A neurophysiological model of speech production deficits in fragile X syndrome. Brain Communications. 2020;2(1):fcz042.
- 21. Fitzpatrick SE, Schmitt LM, Adams R, **Pedapati EV**, Wink LK, Shaffer RC, Sage J, Weber JD, Dominick KC, Erickson CA. Pediatric Quality of Life Inventory (PedsQL) in Fragile X Syndrome. Journal of autism and developmental disorders. 2020 Mar;50(3):1056-63.

- 22. **Pedapati, EV**, Mooney, L, Wu, S, Erickson, CA, Sweeney, JA, Shaffer, R, Horn, P, Wink, L, and Gilbert, DL. Motor Cortex Facilitation: A Marker of Attention Deficit Hyperactivity Disorder co-occurrence in Autism Spectrum Disorder. Translational Psychiatry. 2019. In Press. Manuscript Number: 2019TP000279R.
- 23. Gilbert, D., Wu, S., Horn, P., **Pedapati, E.**, & Mostofsky, S. (2019). Reduced motor cortex modulation during response inhibition task correlates with worse performance more severe clinical and motor impairment in children with ADHD. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation, 12(2), 417.

- 24. Gilbert DL, Huddleston DA, Wu SW, **Pedapati EV**, Horn PS, Hirabayashi K, Crocetti D, Wassermann EM, and Mostofsky SH. Motor cortex inhibition and modulation in children with ADHD. Neurology. 2019;93(6):e599-e610. PubMed PMID: 31315973.
- 25. Ethridge LE, De Stefano LA, Schmitt LM, Woodruff NE, Brown KL, Tran M, Wang J, **Pedapati E**V, Erickson CA, Sweeney JA. Auditory EEG Biomarkers in Fragile X Syndrome: Clinical Relevance. Frontiers in Integrative Neuroscience. 2019;13:60.
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- (b) Work in manuscript
- 1. **Pedapati, EV.**, Liu, R, Rogers, M, Sweeney, JA and Erickson, CA. Exaggerated Theta-Gamma Phase Amplitude Coupling (PAC) in Fragile X Syndrome.
- 2. **Pedapati, EV.**, Liu, R, Rogers, M, Sweeney, JA and Erickson, CA. Neocortical Localization and Thalamocortical Modulation of Neuronal Hyperexcitability in Fragile X Syndrome.

### (d) Books

- 1. Delgado SV, Pedapati EV, and Strawn JR. *Promoting the Emotional and Behavioral Success of Youths: A Practical Guide for Clinicians*. Springer Nature; 2022.
- 2. Delgado SV, Strawn JR, **Pedapati EV**. Contemporary Psychodynamic Psychotherapy for Children and Adolescents: Integrating Intersubjectivity and Neuroscience. Springer, New York: 2015.
- (e) Book Chapters

- 1. McClellan L, **Pedapati EV**, Wink L, Erickson C. Evidence-Based Pharmacotherapy for Autism Spectrum Disorders. Current treatment options in psychiatry. 2016;3(2):161-81.
- 2. Wu, S and **Pedapati, EV**. Neuroplasticity Protocols. In: <u>Pediatric Brain Stimulation: Mapping and Modulating the Brain. (1<sup>st</sup> Edition)</u>, Kirton, A and Gilbert, D. Academic Press, 2016.
- 3. **Pedapati, EV.** Methanol Poisoning. *In:* Domino, FJ. and Baldor, RA., (*Eds.*), *The 5-minute Clinical Consult, 20<sup>th</sup> Edition*, Wolters Kluwer, Philadelphia, USA, pp. 824-825, 2012.
- 4. Shaffer, J and **Pedapati, EV. Autism Spectrum Disorders and their Clinical Management.** *In:* Black, DW., (*Eds.*), *Scientific America Psychiatry,* Decker, Jackson, WY, USA, 2019.

## (f) Selected Abstracts

- 1. Blank, E., Miyakoshi, M., Ethridge, L., Westerkamp, G., Schmitt, L., Erickson, C., Liu, R., Smith, E., DeStefano, L., Cullion, K., Dominick, K., Shaffer, R., Sweeney, J., **Pedapati, E.** (2021). Neural Effects of Sham-Controlled Alpha Auditory Entrainment in Fragile X Syndrome: Pilot Study. Poster Presentation at International Society for Autism Research Conference (INSAR) 2022 Annual Meeting, Austin, TX.
- Westerkamp, G., Ethridge, L., Erickson, CA., Liu, R., Jones, S., Blank, E., Miyakoshi, M., G., Schmitt, L., Smith, E., Cullion, K., Dominick, K., Shaffer, R., Sweeney, J.,
   Pedapati, E. (2021). Transient alpha frequency events predict phase synchronization impairments during the sensory auditory chirp in Fragile X Syndrome. Poster Presentation at International Society for Autism Research Conference (INSAR) 2022 Annual Meeting, Austin, TX.
- 3. **Pedapati E.** 5.4 Transcranial Magnetic Stimulation Measures As Emerging Biomarkers Of Adhd In Autism Spectrum Disorder. Journal of the American Academy of Child & Adolescent Psychiatry. 2021 Oct 1;60(10):S266.
- 4. Schmitt L, **Pedapati E**, Dominick K, Erickson C. Clinical Utility Of Optimized Fragile X Protein Analysis. Journal of the American Academy of Child & Adolescent Psychiatry. 2021 Oct 1;60(10):S256.
- 5. **Pedapati E.** Pharmacologic Interventions for Irritability, Aggression, Agitation, and Self-Injurious Behavior in Fragile X Syndrome: An Initial Cross-Sectional Analysis and Discussion of Management Strategies. In2020 Virtual Meeting 2020 Oct 19. AACAP.
- 6. **Pedapati E.** Autism Spectrum Disorder and Psychosis: A Challenging Intersection for Clinician, Patient, and Caregivers. In2020 Virtual Meeting 2020 Oct 24. AACAP.
- 7. Jutla A, **Pedapati E**, Martin A, Jacob S, Calhoun A, Carlson G, Reiss AL, Joshi PT, Vasa R. James C. Harris, MD, Developmental Neuropsychiatry Forum: Racial and Ethnic Disparities in the Identification and Treatment of Neurodevelopmental Disorders in the United States. In68th Annual Meeting 2021 Oct 28. AACAP.
- 8. Zea Vera A, **Pedapati EV**, Kohmescher K, Miyakoshi M, Huddleston DA, Jackson HS Gilbert DL, Horn PS, Wu SW. EEG correlates of frontal cortex mediated inhibitory control in Tourette syndrome. 2021 AAN Annual Meeting, virtually, April 2021.

- 9. Schmitt, L.M., Li, J., Friedman, N., Chin, D., Liu, R., **Pedapati, E.**, Erickson, C.A., & Sweeney, J.A. (Canceled conference). Altered ERPs during Reversal Learning Provide Clues to Behavioral Rigidity in Fragile X Syndrome. Poster presentation at INSAR 2020 Annual Meeting, Seattle, WA.
- 10. Schmitt, L.M., Li, J., **Pedapati, E.V.**, Rogers, M., Friedman, N., Erickson, C.A., Sweeney, J.A. (Canceled conference). Novel Performance-Based EEG Study of Behavioral Flexibility in Individuals with Fragile-X Syndrome. Poster presentation at 2020 Gatlinburg Conference. San Diego, CA.
- 11. Friedman, N., McCoy, N., Chin, D., Leonardi, G., Reisinger, D., Shaffer, R., **Pedapati, E.V.,** Berry-Kravis, E., Erickson, C.A., Schmitt, L.M. (Canceled conference). Uncapping the Possibilities in FXS: A Guide to Successful EEG Collection. Poster presentation at 2020 Gatlinburg Conference. San Diego, CA.
- 12. Li, J., Roger, M., Friedman, N., Chin, D., Russo, E., Erickson, C.A., **Pedapati, E.V.**, Schmitt, L.M. (Canceled conference). Exploring Cognitive Flexibility Deficits Using Behavioral Tasks in Individuals with Fragile X Syndrome
- 13. **Pedapati, EV.**, Liu, R, Rogers, M, Sweeney, JA and Erickson, CA. Exaggerated Theta-Gamma Phase Amplitude Coupling (PAC) in Fragile X Syndrome. American College of Neuropsychopharmacology 58th Annual Meeting, Orlando, FL. 2019. Poster.
- 14. Pedapati, EV., Liu, R, Rogers, M, Erickson, CA, Mooney, LA, Wu, S, Sweeney, JA, Wink, LA, Gilbert, DA. High-Resolution EEG Connectivity Modeling of Attention-Deficit/Hyperactivity Disorder Co-occurrence in ASD and Associated Methylphenidate Response. American Academy of Child and Adolescent Psychiatry 66st Annual Meeting. Chicago, IL. 2019.
- 15. Gilbert D, Wu S, Horn P, **Pedapati EV**, Mostofsky S. Reduced motor cortex modulation during response inhibition task correlates with worse performance more severe clinical and motor impairment in children with ADHD. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation. 2019 Mar 1;12(2):417.
- 16. **Pedapati, EV**, Mooney L, Wu S, Sweeney J, Erickson C, Gilbert D. Motor Cortex Facilitation: An inattention marker in ADHD co-occurrence in Autism Spectrum Disorder. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation. 2019 Mar 1;12(2):440.
- 17. Wu S, **Pedapati, EV**, Roeckner A, Huddleston D, Jackson H, Gilbert D. Decreased functional connectivity between frontal and motor cortex in Tourette Syndrome. Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation. 2019 Mar 1;12(2):439.
- 18. **Pedapati, EV** 31.4 Intracortical Facilitation as an Electrophysiological Signature for ADHD in Youth With ASD. Journal of the American Academy of Child & Adolescent Psychiatry. 2018 Oct 1;57(10): S318.
- 19. Erickson, CA, Schmitt, L, **Pedapati, EV**, Ethridge, LE, and Sweeney, JA. T85. Single Dose Drug Challenge Study in Fragile X Syndrome: Initial Report of Drug Impact on EEG

- Markers. American College of Neuropsychopharmacology 57th Annual Meeting, Hollywood, FL. 2018. Poster.
- 20. Wink, L, Shaffer, R, **Pedapati, EV**, Domnick, K, Vinks, A, Sweeney, JA, and Erickson, CA. W45. Intranasal Ketamine Use in Autism Spectrum Disorder: A Placebo-Controlled Crossover Pilot Study. American College of Neuropsychopharmacology 57th Annual Meeting, Hollywood, FL. 2018. Poster.
- 21. **Pedapati, EV**, Erickson, CA, Ethridge, LA, Sweeney, JA, and Gilbert, DA. W45. Intranasal Ketamine Use in Autism Spectrum Disorder: A Placebo-Controlled Crossover Pilot Study. Poster Session. American College of Neuropsychopharmacology 57h Annual Meeting, Hollywood, FL. 2018. Poster.
- 22. **Pedapati, EV**, Mooney L, Wu S, Ethridge L, Erickson CA, Sweeney J, Gilbert D. 5.2 Cortical Excitability and Behavioral Correlates of COMORBID ADHD in Youth with Autism Spectrum Disorders. Journal of the American Academy of Child & Adolescent Psychiatry. 2017 Oct 1;56(10): S253.
- 23. **Pedapati, EV**, Erickson, CA, Mooney, L, Wu, SW, Ethridge, L, Sweeney, JA, and Gilbert, DA. M158. Reduced Intracortical Facilitation as a Biomarker for Co-Morbid Attention Deficit Hyperactivity Disorder in Youth With Autism Spectrum Disorder. Poster Session. American College of Neuropsychopharmacology 56th Annual Meeting. Palm Springs, CA. 2017. Poster.
- 24. Erickson, CA, Fitzpatrick, S, Davenport, M, Pedapati, EV, Sweeney, JA, and Schaefer, T. W167. Targeted GABA A Modulation in the Mouse Model of Fragile X Syndrome. Poster Session. American College of Neuropsychopharmacology 56th Annual Meeting. Palm Springs, CA. 2017. Poster.
- 25. Erickson, CA, Wink, L, Shaffer, R, **Pedapati, EV**, Schaefer, T, Domnick, K, Meyer, H, Hong, M, Duncan, A, Thomas, C, O'Brian, K, Tessier, C, and Sweeney JA. T85. Lymphocytic Extracellular Signal Related Kinase Activation in Autism Spectrum Disorder. Poster Session. American College of Neuropsychopharmacology 55th Annual Meeting, Hollywood, FL. 2016. Poster.
- 26. Delgado, S, **Pedapati, EV**, and Strawn, J. Meet the Author Contemporary Psychodynamic Psychotherapy for Children and Adolescents: Integrating Intersubjectivity and Neuroscience. American Academy of Child and Adolescent Psychiatry 63st Annual Meeting. New York, New York. 2016.
- 27. **Pedapati, EV**, Ameis, S., Croarkin, P, and MacMaster, F. Special Interest Study Group 10: Neurostimulation in Child and Adolescent Psychiatry: ECT, TMS, and tDCS. American Academy of Child and Adolescent Psychiatry 63st Annual Meeting. New York, New York. 2016. Symposium.
- 28. **Pedapati, EV**, Sweeney, J., Erickson, C.E., Ethridge, Mooney, L., Hong, M., Guilfoyle, J., and Gilbert, D. Measurement of Sensorimotor Cortex Inhibition using Transcranial Magnetic Stimulation: A Potential Biomarker of Cortical Excitability in Fragile X Syndrome. Gordon Fragile X International Annual Research Conference. Mt. Snow, Vermont. 2016. Poster.

- 29. **Pedapati, EV**, Anixt, J., Shaffer, R.C., Ittenbach, R.F., Wink L.K., Sorter, M., Fox, E., Badran, I. and Erickson C.A. Brief Outcomes in Autism Tool (BOAT): Use of a Novel Outcomes Tool to Improve Medication Management in Persons with Autism Spectrum Disorders. International Society for Autism Research, Baltimore, MD. 2016. Poster.
- 30. **Pedapati, EV**., Ameis, S., Croarkin, P, and Emslie, G.J. Transcranial Magnetic Stimulation for Biomarker Discovery and Treatment Innovation in Children and Youth With Psychiatric Illness. American Academy of Child and Adolescent Psychiatry 62st Annual Meeting. San Diego, CA. 2015. Symposium.
- 31. **Pedapati, EV**, Wink, L, Erickson, CA, Gabriels, Beresford, Kaplan, Morrow and Siegel. Preliminary Characterization of Medication Use in a Multicenter Sample of Pediatric Inpatients with Autism Spectrum Disorder. International Society for Autism Research, Salt Lake City, UT. 2015. Poster.
- 32. Erickson, CA, Wink, L. **Pedapati, EV**, Schaefer, T, Shaffer, R, Bayon, Ray and Lahiri, DK. Extracellular Signal Related Kinase Activation in Autistic Disorder. International Society for Autism Research. Salt Lake City, UT. 2015. Poster.
- 33. **Pedapati, EV.**, C. Laue, D. Huddleston, A. Minister, C. Erickson, D. Gilbert and S. Wu. Theta Burst Stimulation Reveals Deficits in Cortical Plasticity in Youth With Autism Spectrum Disorders. American Academy of Child and Adolescent Psychiatry, 61st Annual Meeting. San Diego, CA. 2014. Poster.
- 34. **Pedapati, EV.**, C. Laue, A. D. Wu, D. A. Huddleston, D. Gilbert and E. Harris. Cortical Plasticity in Adolescent Depression. American Psychiatric Association, Young Investigator Symposium. New York, New York. 2014. Poster.
- 35. **Pedapati, EV.** DiFranscesco, S. Wu, C. Giovanetti, T. Nash and E. Harris. Functional Magnetic Imaging Reveals Neural Changes Associated With Transcranial Magnetic Stimulation In Adolescents With Obsessive Compulsive Disorder. Poster Session at the American Academy of Child and Adolescent Psychiatry 60th Annual Meeting. Orlando, FL. 2013. Poster.

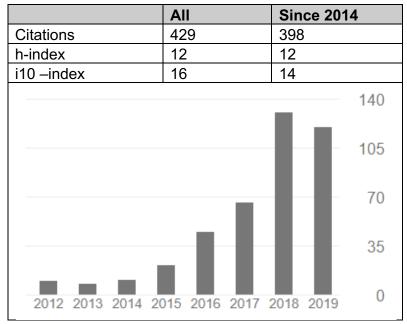
### **PRESENTATIONS**

- 1. Jutla A, Pedapati E, Martin A, Jacob S, Calhoun A, Carlson G, Reiss AL, Joshi PT, Vasa R. James C. Harris, MD, Developmental Neuropsychiatry Forum: Racial and Ethnic Disparities in the Identification and Treatment of Neurodevelopmental Disorders in the United States. In68th Annual Meeting 2021 Oct 28. AACAP.
- 2. Pedapati E. 8.4 Hurtling Toward Precision Medicine In Syndromic Intellectual Disability Disorders: Insights From Mouse To Man. Journal of the American Academy of Child & Adolescent Psychiatry. 2021 Oct 1;60(10):S137.
- 3. Pedapati E. Pharmacologic Interventions for Irritability, Aggression, Agitation, and Self-Injurious Behavior in Fragile X Syndrome: An Initial Cross-Sectional Analysis and Discussion of Management Strategies. In2020 Virtual Meeting 2020 Oct 19. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP).

- **4. Pedapati E.** Autism Spectrum Disorder and Psychosis: A Challenging Intersection for Clinician, Patient, and Caregivers. In2020 Virtual Meeting 2020 Oct 24. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP).
- 5. Brafford JZ, Jutla A, **Pedapati E**, Yeh L, Whitaker A, Rogers C. James C. Harris, MD, Developmental Neuropsychiatry Forum: Understanding the Neurodevelopmental Consequences of Premature Birth: Key Findings and Their Implications for Clinical Practice. Meeting Co-chair. In2020 Virtual Meeting 2020 Oct 22. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP).
- **6. Pedapati, EV.** New Directions in Translational EEG Biomarkers in Fragile X Syndrome. Invited Speaker. Gordon Research Seminar. Tuscany, Italy. Rescheduled due to COVID19. Expected: May of 2020.
- 7. Pedapati, EV. Assessment and Treatment of Common Psychiatric Concerns in Individuals with Intellectual Developmental Disorder. Institute Speaker. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP), October 16, 2019. Chicago, IL.
- **8. Pedapati, EV.** Signal to Noise: Emerging Directions for Clinical Trial Development in Developmental Disorders. Research Cross Talk. University of Cincinnati Department of Psychiatry. February 5, 2020. Cincinnati, OH.
- 9. Pedapati, EV. Development of Training Clinics for Child and Adolescent Psychiatry Fellows for Patients with Developmental Disabilities and Comorbid Mental Illness. Symposium. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP), October 18, 2019. Chicago, IL.
- **10. Pedapati, EV.** Fragile X Scientific Research Update. Fragile X Scientific Review Meeting. Cincinnati Children's Hospital. July 13, 2019.
- **11. Pedapati, EV.** U54 Fragile X Center Research Results Update. Fragile X U54 Center Annual Meeting. National Institutes of Health. Bethesda, MD. May 5, 2019.
- **12. Pedapati, EV.** Impaired Intracortical Facilitation in ASD with ADHD. Symposium. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP), October 2018, Seattle, Washington.
- **13. Pedapati, EV.**, Shapiro, M, Singletary, M, and Delgado, SV. Clinical Case Conference 1: "I Am Scared!" Dilemmas Children Face When Their Parents Have Substance Use Disorders or Addictions: Bringing Clarity to Complex and Emotionally Charged Clinical Work in a Multidimensional Approach. American Academy of Child and Adolescent Psychiatry 64st Annual Meeting. Washington, DC. Clinical Case Conference Presentation. October 2017.
- **14. Pedapati, EV.** New directions in fragile X research. Fragile X U54 Center Talk. National Institutes of Health. Bethesda, MD. April 4, 2017.
- **15. Pedapati, EV.** Previews from the Pipeline: A Data Blitz Featuring Early Career Investigators. American Academy of Child and Adolescent Psychiatry 63st Annual Meeting. New York, New York. October 2016.
- **16. Pedapati, EV.** and Srivorakiat, L. Behavioral and Medical Approaches to Challenging Behavior. Developmental and Behavioral Pediatrics Blitz Talk. Cincinnati Children's Hospital Medical Center. August 24, 2016.

- **17. Pedapati, EV.** Plasticity: A new piece of the puzzle. Down Syndrome Research Day. Cincinnati Children's Hospital Medical Center. April 23, 2016.
- **18. Pedapati, EV.** Transcranial Magnetic Stimulation for Biomarker Discovery in Children with Neuropsychiatric Illness. Symposium. Annual Meeting of the American Academy of Child and Adolescent Psychiatry (AACAP), San Antonio TX, October, 2015.
- 19. Pedapati, EV, Brubaker, C, Roesler, TA, Dingle, AD, Johnson, KP, and Delgado, SV What's Your Lens? Bringing Clarity to Complex Clinical Presentations Where the Supervisor Has to Help the Resident Navigate the Process by Integrating Psychodynamic, Family Systems, Medico-Legal, and Ethical Issues. American Academy of Child and Adolescent Psychiatry 61st Annual Meeting. San Diego, CA. 2014. Symposium Presenter.
- **20. Pedapati, EV.** Stimulant use in autism. Center for ADHD. Cincinnati Hospital Medical Center. June 24, 2014.
- **21. Pedapati, EV.** Practical medication management development with disabilities. Children some primary care talk. September 10, 2014.
- **22. Pedapati, EV.** Translational Research for Novel Treatment Development in FXS through Patient Oriented Research. Neurology Grand Rounds. Cincinnati Children's Hospital Medical Center. June 1, 2016.
- **23. Pedapati, EV.** A developmental approach psychiatric history and formulation. Schubert Weekend Pediatric Update. Cincinnati Children's Hospital Medical Center. June 2015.
- **24. Pedapati, EV.** Psychiatric History and Formulation. Schubert Weekend Pediatric Update. Cincinnati Children's Hospital Medical Center. June 2014.

### QUALITY REVIEW OF PUBLICATIONS



Google Scholar, accessed August 8, 2019

Ten articles illustrating academic excellence or expertise.

1. Goel A, Cantu DA, Guilfoyle J, Chaudhari GR, Newadkar A, Todisco B, de Alba D, Kourdougli N, Schmitt LM, Pedapati EV, Erickson CA, and Portera-Cailliau C. <u>Impaired perceptual learning in a mouse model of Fragile X syndrome is mediated by parvalbumin neuron dysfunction and is reversible</u>. Nature Neuroscience. 2018;21(10):1404-11. PubMed PMID: 30250263.



• In the top 5% of all research outputs scored by Altmetric

This peer-reviewed paper demonstrates a striking parallel behavior paradigm between patients affected by Fragile X Syndrome and the Fragile X knockout mouse. Dr. Pedapati was involved in the development and execution of the human portion of the experiment with collaborators at UCLA who performed the translational research. Such critical parallel experiments can further key therapeutic development.

Pedapati EV, and Bateman ST. <u>Toddlers requiring pediatric intensive care unit admission following at-home exposure to buprenorphine/naloxone.</u> Pediatr Crit Care Med. 2011;12(2):102-7. PubMed PMID: 20921918.

Altmetrics	Citation Metrics				Journal Ranking	gs
64	EPMC 17	Scopus 34	WoS	Pediatric Critica <u>SNIP</u> <sup>™</sup> 1.24	l Care Medicine <u>SJR</u> <sup>™</sup> 1.36	Impact Factor

This is a highly cited peer-reviewed paper which highlights the danger of buprenorphine to children, a partial opiate agonist used for the treatment of opiate dependence. Dr. Pedapati compiled this case series as a medical student working in the pediatric ICU. In addition to academic citations, this paper was instrumental in a manufacturer change of the product from a color-coated tablet to individually wrapped dissolvable films.

 Pedapati EV, Gilbert DL, Erickson CA, Horn PS, Shaffer RC, Wink LK, Laue CS, and Wu SW. <u>Abnormal Cortical Plasticity in Youth with Autism Spectrum Disorder: A Transcranial Magnetic Stimulation Case-Control Pilot Study.</u> J Child Adolesc Psychopharmacol. 2016;26(7):625-31. PubMed PMID: 27007257.

Altmetrics	Citation Metrics				Journal Ranking	gs
3	<u>EPMC</u> 5	Scopus 9	WoS 9	JOURNAL OF CH	HILD AND ADOL	ESCENT Impact Factor
				0.82	1.32	2.90

This study by Dr. Pedapati highlights the physiological effects of high frequency Theta burst transcranial magnetic stimulation on the largest sample of children with autism spectrum disorder to date. The study demonstrated abnormal cortical excitability changes following the stimulation period and a potential cortical biomarker.

4. Muhle RA, Reed HE, Vo LC, Mehta S, McGuire K, Veenstra-VanderWeele J, and Pedapati E. Clinical Diagnostic Genetic Testing for Individuals with Developmental Disorders. J Am Acad Child Adolesc Psychiatry. 2017;56(11):910-3. PubMed PMID: 29096769.



This article highlights recent key changes in the clinical best practices for genetic testing in children with neurodevelopmental disorders. Dr. Pedapati and Dr. Muhle co-chaired a commissioned working group of the American Academy of Child and Adolescent Psychiatry Autism and Intellectual Disability Committee to gather best practices and generate a manuscript in a high impact journal that would have a broad readership and clinical impact.

5. Pedapati EV, Gilbert DL, Horn PS, Huddleston DA, Laue CS, Shahana N, and Wu SW. Effect of 30 Hz theta burst transcranial magnetic stimulation on the primary motor cortex in children

and adolescents. Front Hum Neurosci. 2015;9:91. PubMed PMID: 25762919.

Altmetrics	Citation Metrics				Journal Rankin	igs
	EPMC 7	Scopus	WoS	Frontiers in Hull	man Neuroscie SJR <sup>⊡</sup>	ence Impact Factor
	,	,	o	1.12	1.47	2.87

This peer-reviewed article is the first and only case series of healthy children treated with high frequency Theta Burst transcranial magnetic stimulation. The paper describes the optimization of an adult protocol to the pediatric population with changes in stimulation intensity, frequency, and pulse number. The results demonstrate the time course of cortical excitability changes following the stimulation that is reminiscent of long-term potentiation changes in slice electrophysiology. The paper remains an important citation for authors who want to demonstrate safety of the technique in healthy pediatric subjects.

 Wang J, Ethridge LE, Mosconi MW, White SP, Binder DK, Pedapati EV, Erickson CA, Byerly MJ, and Sweeney JA. A resting EEG study of neocortical hyperexcitability and altered functional connectivity in fragile X syndrome. J Neurodev Disord. 2017;9:11. PubMed PMID: 28316753.

Altmetrics	Citation Metrics			J	Journal Rankin	igs
	EPMC 11	Scopus 19	<b>WoS</b> 17	Journal of Neur	rodevelopmen: SJR <sup>☑</sup>	tal Dis Impact Factor
				1.04	1.71	3.50

Though Dr. Pedapati was a co-author on this paper he substantially contributed to the collection of resting EEG data and manuscript revisions. During the drafting and publication of this paper, Dr. Pedapati led efforts at CCHMC to perform the replication study in enrolling over 120 participants. This paper was a key study demonstrating cortical electrophysiological abnormalities in the high-frequency gamma range which has striking correlates with the mouse knockout model of Fragile X. Currently Dr. Pedapati's lab is in the process of submitting the findings of the replication study with enhanced methodology that demonstrates phase amplitude coupling results.

### **SOCIETY MEMBERSHIPS**

### Present

2009-present Gold Humanism in Medicine National Honor Society 2014-present American Academy of Child & Adolescent Psychiatry

## PEER REVIEWER (last 3 years)

- 1. Frontiers in Integrative Medicine
- 2. Brain Stimulation
- 3. Autism Research

### SERVICE

2017 Working group member. National Institute of Mental Health Special Panel:
Biomarkers to Enable Therapeutics Development in Neurodevelopmental Disorders

### **COMMITTEES**

2017-present Autism and Intellectual Disabilities Committee, American Academy of Child & Adolescent Psychiatry. Standing Committee member.
 2016-2018 Genetics and Autism Working Group, American Academy of Child & Adolescent Psychiatry, Chair (2016-2018)

### **COMMUNITY SERVICE**

2020	Maximizing Relationships to Bring Radical Change. Hamilton County Higher Education Mentoring Initiative (HEMI). February 6, 2020. Cincinnati, OH.
2019	Advances in Fragile X Treatment Discovery and Introduction to the FXS Gene Therapy Program at Cincinnati Children's. Cleveland Fragile X Family Foundation. Speaker.
2019	Why we do EEG? Fragile X Syndrome Family Meeting and Research Update. Cincinnati Children's Hospital Medical Center. Speaker.
2019	Cincinnati Children's Fragile X Gene Therapy Program. Fragile X Syndrome Family Meeting and Research Update. Cincinnati Children's Hospital Medical Center. Speaker.
2018	Pediatric Mental Health Symposium 2018. 5 Years, 5 Patients, 5 lessons Caring for Children with Developmental Disabilities. Speaker.
2017	Empowering Families Symposium: Advocating for Children with Special Needs, Cintas Center, Xavier University. Keynote Speaker.
2016	14 <sup>th</sup> Annual NADD: State of Ohio IDD/MI Conference. Keynote speaker.
2016	Empowering Families Symposium: Advocating for Children with Special Needs, Cintas Center, Xavier University. Speaker.
2016	A Practical Approach to Psychiatric Formulation. NAMI Cincinnati. Speaker.
2015	From Diagnosis to the Classroom: Autism and Childhood Disabilities. Pediatric Mental Health Symposium. Cincinnati Children's Hospital Medical Center. Speaker.
2014	University of Cincinnati Mood Disorders Symposium: Conquering Depression: Different Approaches for All Ages. Speaker.
2014	Psychiatric History and Formulation. Cincinnati pediatric Society. Speaker.