

# ELISSAR ANDARI, Ph.D.

## Curriculum Vitae

### EDUCATION

Assistant Professor  
Toledo University,  
College of Medicine and Life Sciences  
Psychiatry Department  
ASAN laboratory (Autism & Social  
Affective Neuroscience)

Adjunct Assistant Professor  
Department of Psychiatry and Behavioral  
Sciences  
Emory University

- 2005            Clinical B.S. French University Saint-Joseph, Beirut, Lebanon. Summa Cum Laude.
- 2006            Research M.S. in Neuropsychology, Université Lumière Lyon 2, Laboratory EMC. Cum Laude. Research advisor: Dr. Oliver Koenig.
- 2007            Research M.S. in Physiology and Neurosciences, Université Claude Bernard Lyon 1 and CNC, UMR 5229, CNRS, Bron, France. Cum Laude.
- 2011            Ph.D. in Neuroscience and Physiology, Université Claude Bernard Lyon 1 and CNC, UMR 5229, CNRS, Bron, France. Ph.D. advisor: Dr. Angela SIRIGU.
- 2011-2019     Postdoctoral Fellow, Emory University School of Medicine, Division of Behavioral Neuroscience and Psychiatric Disorders, Yerkes National Primate Research Center, Atlanta, GA, USA. Mentor: Larry J. Young.
- 2019-current   Adjunct Assistant professor, Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA, USA.
- 2019-current   Assistant professor, Department of Psychiatry, Toledo University, College of Medicine and Life Sciences, Toledo, Ohio, USA.

### CLINICAL EXPERIENCE & SCIENTIFIC TRAINING

- 2001            Internship, rehabilitation and therapeutic interventions, The Lebanese School for the Blind and the Deaf, Baabda, Lebanon
- 2001            Internship, re-education of motor dysgraphia for children, International College, Hamra, Beirut, Lebanon
- 2002            Internship, re-education of behavioral deficits in epileptic patients with cerebral lesions and hyperactivity, Clinic of Diana Sakr, Lebanon.
- 2004            Internship, prognostic and diagnostic work with children with low functioning Autism, mental retardation and Down Syndrome, Sesobel Autism Center, Zouk-Mikael, Lebanon.
- 2005            Internship, cognitive and behavioral therapy with autistic children and adults, Gachetière-Voreppe Center of Autism, France.
- 2009            Training, Autism Diagnostic Observation Schedule (ADOS) and Autism Diagnostic Interview (ADI), Pr. Bernadette Roger (mentor), Toulouse, France.

- 2007 Summer School, FSL and FreeSurfer Course: 3-7 September 2007, Cardiff, Wales (training on fMRI analysis).
- 2013 Certification, Introduction to Clinical Trials, Institutional Review Board course, Emory University, USA
- 2016 NIH K Award Grant Writing Tutorial (March, 7<sup>th</sup> 2016), Emory University, USA
- 2016 Writing an Effective Teaching Statement (November 15<sup>th</sup> 2016), Emory University, USA
- 2016 Giving a great chalk talk (November 29<sup>th</sup> 2016), Emory University, USA
- 2016 Academic CV (July 21<sup>st</sup>, 2016), Emory University, USA
- 2016 Ethics Course (October-November 2016), Emory University, USA

## AWARDS AND GRANT SUPPORT

- 2007-2010 PhD Fellowship award, French Ministry of Higher Education and Research "Bourse du Ministere de l'Education Nationale, de l'Enseignement Superieur et de la Recherche".
- 2007-2009 Foundation de France research grant, Programme Recherche Medicale, "The role of oxytocin in patients with Autism." Principle Investigator: Angela Sirigu. Total Direct Costs per year: 80,000 Euros.
- 2010-2011 PhD Fellowship from the French National Research Agency, doctoral fellowship, EA 100% effort.
- 2011-2012 Center for Translation for Social Neuroscience postdoctoral fellowship, EA 100% effort.
- 2012-2018 National Institutes of Health, Silvio O. Conte Center Grant, "Oxytocin and social cognition." Principle Investigator, Project 4: Larry Young. Total Direct Costs: \$10,000,000. Total Direct Costs, Project 4: \$1,250,000. EA effort: 100%.
- 2012-2014 Center for Translational Social Neuroscience Pilot research grant, "Oxytocin as adjunctive treatment of Schizophrenia". Principle Investigator: Erica Duncan, MD. Co-PI: E.A.
- 2017-2018 Interdisciplinary Neuroscience Pilot Research Grant (PI: E. Andari). Emory College of Arts and Sciences.
- 2018-2019 Center for Translational Social Neuroscience, Emory Conte Center for Oxytocin and Social Cognition Pilot Project Grant "Precision medicine approach for intranasal oxytocin effects on brain function in Autism Spectrum Disorder". PI: EA. Total funds: \$25,000.
- 2018 American College of Neuropsychopharmacology Travel award.
- 2020 Medical Research Society University of Toledo, a pilot grant: Adjunctive Therapeutic Potential of Oxytocin for COVID-19 (OxyCovid project). PI: EA. Total funds: \$25,000.
- 2020 ProMedica Foundation: Autism and Social Neuroscience. PI: EA. \$225,000
- 2020 Mentor of MD student award: Distinction in Research. University of Toledo Medical Center. PI: Stephanie Cordonnier.
- 2020 American Physiological Society select: best recent paper: Oxytocin's anti-inflammatory and proimmune functions in COVID-19: a transcriptomic signature-based approach. <https://journals.physiology.org/journal/apselect>

## SUBMITTED GRANTS

- February 2020 Women & Philanthropy at the University of Toledo. Virtual reality-based social cognition and empathy training for adults with autism.

- May 2020 Simons Foundation Autism Research Initiative (SFARI). Epigenetics and sperm morphology as biomarkers for paternal risk in autism spectrum disorders.
- June 2020 NIH R21 PA-20-194 Repurposing intravenous oxytocin treatment to address the novel COVID-19 infectious disease.
- February 2021 NIH R21 PA=20-195 The underlying oxytocin-related mechanisms of coronavirus disease in pregnant mice and offspring

## INVITED TALKS & SYMPOSIUMS

- Dec 2009 Frontiers in Neuroscience Conference Abstract. 3rd Mediterranean Conference of Neuroscience, Alexandria, Egypt. Title of the talk: "Neurobiology of social behavior."
- Nov 2011 Association Française de Psychiatrie Biologique, Lyon, France. Title of the talk: "Role de l'ocytocine dans l'autisme."
- Mar 2012 Congres de l'Association Francaise de Psychiatrie Biologique, Paris, France. Title of the symposium: "Ocytocine, Psychopathologie et reponses de stress". Title of the talk: "Le role du neuropeptide evolutionnaire: implication de l'ocytocine dans les troubles autistiques."
- Oct 2012 Target Expert Meeting: Autism, 25<sup>th</sup> European College of Neuropsychopharmacology Congress, Vienna, Austria. Title of the talk: "The role of oxytocin in autism, hormones and behavior."
- Nov 2013 Marcus Autism Center Grand Rounds, Atlanta, GA. Title of the talk: "Role of the neuropeptide oxytocin in human social functioning."
- Nov 2015 The Center for Mind, Brain, and Culture. Emory University Postdoctoral Research Symposium, Atlanta, GA. Title of the talk: "Precision Medicine Approach for oxytocin's role in social behavior; from rodents to humans".
- May 2016 Society of Biological Psychiatry Annual Meeting, Atlanta, GA. Title of the talk: "Oxytocin-related social fear learning and anterior insula activity in response to social distress in rodents."
- Sept 2016 Japanese Society for Behavioral Neuroendocrinology, Atami, Japan. Title of the talk: "Therapeutic Avenues for Autism Spectrum Disorder with the Neuropeptide Oxytocin."
- Sept 2016 Tsukuba Global Science Week, Tsukuba, Japan. Session: Translational Research on Social, Affective and Cognitive Behavior. Title of the talk: "Therapeutic Avenues for Autism Spectrum Disorder with the Neuropeptide Oxytocin."
- Sept 2016 Atlanta Autism Research Symposium, Emory University, Atlanta, GA. "The role of oxytocin in autism spectrum disorder."
- Nov 2016 Society for Neuroscience, San Diego, CA. Mini-symposium: Oxytocin from rodents to humans: how to translate research into therapeutic applications in psychiatry. Title of the talk: "Intranasal oxytocin applications in humans, potential treatments and limitations."
- Sept 2017 Atlanta Autism Research Symposium, Emory University, Atlanta, GA. Autism Consortium and Emory Conte Center, Panel discussion.
- March 2018 Center for Mind, Brain, and Culture Neuroscience presentations, Emory University, Atlanta, GA. Title of the talk: "The role of Epigenetics and Biological Markers in Prosociality". Emory University.
- May 2018 Centers for Disease Control and Prevention, Atlanta, GA. Title of the talk: "The oxytocin system, biomarker for social functioning and target for therapeutic avenues for Autism Spectrum Disorders".

- May 2018 Understanding the neuroregulatory actions of oxytocin and its potential clinical applications, workshop Erice at Ettore Majorana foundation and center for scientific culture in Sicily, Italy. Oral presentation. Title of the talk: "Target engagement for intranasal oxytocin on brain function in Autism Spectrum Disorders".
- August 2018 Hotel Dieu de France - Institut de psychomotricity, Medical faculty at Universite Saint-Joseph de Beyrouth – Beirut- Lebanon. Invited talk. Title of the talk: "Neurobiological correlates of social disorders in Autism Spectrum Disorders."
- February 2019 Grand Rounds, Department of Psychiatry, University of Toledo, Ohio. Title of the talk: "The neurobiology of Autism Spectrum Disorders."
- August 2019 Workshop on oxytocin and social disorders: from evolutionary perspectives to clinical applications, University of Zurich, The International Society for Evolution, Medicine & Public Health supports research, education, and communication in evolutionary medicine, Switzerland. Title of the talk: " Epigenetics and oxytocin treatment in autism spectrum disorders."
- February 2020 Grand rounds Neurology. University of Toledo. Title of the talk: "Epigenetic Biomarkers of the Oxytocin Receptor Gene for Autism Spectrum Disorders."
- February 2020 Talk at the Department of Biology. University of Toledo. Title of the talk: "Epigenetic Biomarkers of the Oxytocin Receptor Gene for Autism Spectrum Disorders."
- July 2020 Symposium invitation: Fens (Federation of European Neuroscience Societies). Title of the talk: Target engagement for intranasal oxytocin: brain and behavioral evidence in autism spectrum disorder. S23- Title of the Symposium: Oxytocin and social behavior from animal models to clinical applications: progress and challenges. Chairs: Alexander Charlet, Strasbourg, France and Hala Harony-Nicolas, New York, United States of America. Title of the talk: "Target Engagement for Intranasal Oxytocin: Brain and Behavioral Evidence in Autism Spectrum Disorder."
- Sept 2020 Town Hall Meeting invitation by the office of the Dean. University of Toledo, College of medicine and Life Sciences. Title of the talk: "Neurobiology of Autism Spectrum Disorder: Biomarkers and Therapeutics".
- Dec 2020 Grand Rounds Department of Psychiatry, University of Toledo. Title of the talk: "Drug Repurposing and Child Maltreatment during the COVID-19 Pandemic."

## TEACHING

### Undergraduate Courses

2009-2010 Instructor, Biology Course, "Introduction to Biology". Université Claude Bernard Lyon 1, France

### Undergraduate Lectures

Mar 2016 Invited lecturer, NEUR4420, "Hormones and Behavior." Lecture topic: "Oxytocin and autism". Georgia State University.

### Graduate lectures

May 2010 Invited lecturer, Master of Biosciences Course, "Neural basis of Cognition." Lecture title: "The role of oxytocin in Autism Spectrum Disorders." Ecole Normale Supérieure de Lyon, France.

Emory Continuing Education lectures

- Mar 2016 Invited lecturer, Emory Continuing Education (ECE) course, "Science at Emory." Lecture title: "Oxytocin and social behavior, from rodent research to human clinical trials." Osher Lifelong Learning Center (OLLI), Emory University.
- Sept 2016 Lecturer, ECE course, "Social Neuroscience, brain and behavior 1." Lecture title: "Oxytocin and social behavior." OLLI, Emory University.
- Jan 2017 Lecturer, ECE course, "Social Neuroscience, brain and behavior 2." Lecture title: "Neurobiology of social functioning." OLLI, Emory University.

Emory Continuing Education courses

- Sep-Nov 2016 Instructor, ECE course, "Social Neuroscience, brain and behavior 1". 8 sessions. OLLI, Emory University.
- Jan-Mar 2017 Instructor, ECE course, "Social Neuroscience, brain and behavior 2". 8 sessions. OLLI, Emory University.

Training seminars

- August 2018 Invited instructor, training seminar, "Neurobiological correlates of Autism, scientific methodology and experimental procedures". Institut de Psychomotricite, University Saint Joseph, Lebanon.

Guest lectures at the University of Toledo

- July 2020 Invited talk, Pediatric Dental Residents. Title of the lecture: "Autism Spectrum Disorders and Cognitive Disorders".
- Sept 2020 Invited lecture to graduate program at the Department of Psychology. Class of Dr. Mathew Tull, Neuroscience of Emotions for graduate students. Title of the talk: "Neuroscience of emotions".

**SERVICES****Professional Service**

- 2015 Topic Guest Editor, *Frontiers in Neurobiology* Special Issue on Oxytocin's routes in social behavior: into the 21<sup>st</sup> century.
- 2015 Assistant Organizer, Atlanta Autism Consortium Conference, Atlanta, GA.
- February 2015 Thesis examiner. Chathuri Jeewanthi Yatawara. Sydney Medical School.
- 2016-Present Review Editor at *Frontiers for Psychiatry*.
- June 2016 Grant reviewer, external assessor. Oxytocin enhancement of social learning in the treatment of toddlers with autism. Australian Government, National Health and Medical Research Council.
- Dec 2017 Jury on thesis of Mina Jazayeri by Dr. Jean-Rene Duhamel, Lyon, France.
- June 2019 Member, International Advisory Committee for the 13th World Congress on Neurohypophysial Hormones (WCNH2019).
- January 2020 Thesis Committee member of Hunter Eby, Bioinformatics, Masters, University of Toledo.
- January 2020 Thesis Committee member of Kristina Todorovic, Ph.D. student. Department of Psychology, University of Toledo.
- January 2020 Creation of ACARD: Autism Center and Research Development- series of seminars on clinical services for Autism and research on Autism at the Department of Psychiatry – University of Toledo.
- December 2020 Member of the Scientific Advisory Board of iMIND – The Center of Excellence for autism and NDD, Lyon, France

- January 2021 Thesis Committee member of Mahmoud Eladawi, Bio-Engineering Department. Ph.D. student.
- March 2021 Thesis Committee member of Jaiswal Ankit, Laboratory of Dr. Tomer Avidor-Reiss, Biology Department, Ph.D. student. University of Toledo, USA.
- April 2021 Thesis External examiner for the Ph.D. defense of Tanya L. Procyshyn. PI: Simon Baron-Cohen, Cambridge University, UK.
- April 2021 Jury on the 12<sup>th</sup> Annual Midwest Graduate Research Symposium
- April 2021 Member of the Academic Progress Committee at the University of Toledo.

### Community Service

- Fall 2013 Presenter at Town hall meeting for families with autism Spectrum Disorders. Yerkes National Primate Research Center.
- 2013-2016 Presenter at Town hall meetings at the Emory Autism Center.
- March 2016 Assistant Organizer and presenter at the Open house Emory Autism Center.
- May 2016 Assistant Organizer of Temple Grandin Event.

### Mentorship and Leadership activities

Mentorship and leadership philosophy: I believe that passion, creativity, knowledge, ethics and determination are keys for success in academia. I encourage students to work on projects they are passionate about; to be creative; and to think of theoretical concepts that underlie research problems. I believe that independence is crucial for creativity and self-confidence and that training is also essential for students to be successful. I have trained students on behavioral neuroscience, clinical approaches to work with patients with autism, experimental approaches, methodology, statistics, data collection, regulatory documentation of clinical trials, scientific reading and writing, fMRI analysis and eye tracking analysis, and other techniques. I organize regular meetings to discuss progress, concerns and goals. I believe that being a mentor is a very important job that can shape the destiny of others, and that it is of our responsibility as researchers to help students learn and love research. It is also important to provide opportunities and networking with other experts in the field, to give career advices and to help them get into graduate programs and postdoctoral positions or other jobs of interest. I enjoy mentorship so much and I dedicate lot of time, attention, empathy and care.

*I have mentored women and students that are underrepresented minorities in the biomedical field. It is important to encourage diversity and inclusion of women, minorities and individuals from all races and ethnic groups.*

### Undergraduates:

- 2008-2011 Rafaelle Mottolose, Master program of Neuroscience at the Universite Claude Bernard Lyon1. Role: research supervisor.
- 2008-2009 Alexia Terciolo
- 2012-2014 Melissa Justo, Emory University, Science and Chemistry
- 2014-2015 Monica Justo, Georgia Tech
- 2014 Chasity Howard
- 2013 Kevin Oh, Summer volunteering, Brown University
- 2015-2016 Marshoul O'Brien, Emory university
- 2016-present Gabi Caceres, Emory University, Research supervisor. I am mentoring Gabi

Caceres for her honorary thesis in Neuroscience. She is now a Masters student at King's College London.

2020-present Lauren Dennie, Biology Department, Neuroscience pre-Med concentration, University of Toledo

#### Graduate students

2014-2016 Jiulin Hu, Master Program in Computer Science, Emory University. He is currently a Software Development Engineer II at Amazon.

2015-2016 Rachel Pearcy, Doctoral Program in Neuroscience, Emory University. She is currently a Neuroscience PhD Candidate at Emory University | NIMH NRSA Fellow.

2016-2017 Olena Zyga, Doctoral Program in Clinical Child Psychology, Case Western Reserve University. She is currently a postdoctoral fellow at Stanford University.

2016-2017 Thomas Hennessey, Doctoral Program in Neuroscience, Emory University. He is currently a Life Science specialist consultant.

2020-present Hunter Michael Eby, Bioinformatics, Masters, University of Toledo.

2020-present Alyssa Siano, MSBS – MS, University of Toledo.

2020-present Kristina Todorovic, Psychology, University of Toledo.

2020-present Gamboa Pabon, Daniella, University of Toledo, rotation

2020-present Antara Nigam, MSBS, University of Toledo

2020-present Rachel Senchenkova, MSBS, University of Toledo

2020-present Shivangi Patel, MSBS, University of Toledo

2020-present Sweta Desai, MSBS, University of Toledo

2020-present Vikhyathi Pallerla, MSBS, University of Toledo

2020-present Ann Pacheco, MSBS, University of Toledo

2020-present Gabby MacMunn, MSBS, University of Toledo

2020-present Jacqueline Barsamian, MSBS, University of Toledo

2021-present Gamboa Pabon, Daniella, University of Toledo, PhD student

#### Other mentees:

2016-present Nichole Evans, clinical research coordinator at Marcus Autism Center, volunteering in the Autism Oxytocin Brain project. She is currently doing her thesis studies at the University of California Los Angeles. She is a teaching assistant at UCLA.

2016-present Morganne Reid, coordinator at Marcus Autism Center, research supervisor. She is currently a PhD student at the Catholic University of America.

2019- present Andrew Cotton, MD. Senior Research Associate, University of Toledo.

2020-present Brian O'Leary, computer specialist, University of Toledo.

#### Medical students:

2020-present Stephanie Cordonnier, 3<sup>rd</sup> year medical student, University of Toledo. Stephanie will graduate from the MD program with Distinction in Research (myself was her mentor on the application).

2020-present Christine Celeste Brennan, 3<sup>rd</sup> year medical student, University of Toledo

2020-present Pavan Devarasetty, 1<sup>st</sup> year medical student, University of Toledo

2020-present Scott Gayfield, 1<sup>st</sup> year medical student, University of Toledo

2020-present Katelyn Einloth, 1<sup>st</sup> year medical student, University of Toledo, Medical Science Research Program fellowship

2020-present Nicole Kaplinsky, 1<sup>st</sup> year medical student, University of Toledo, Medical Science Research Program fellowship

2021-present Dilpreet Kaur Kaeley, 1<sup>st</sup> year medical student, University of Toledo, Medical Science Research Program fellowship

2021-present Henna Patel, 1<sup>st</sup> year medical student, University of Toledo, Medical Science Research Program fellowship

#### Coordinator

2017- 2018 Salvation Manadom, clinical research coordinator, training her on the clinical trial requirements and regulations

#### **Manuscript reviewer**

Molecular Psychiatry

Biological Psychiatry

Proceedings of the National Academy of Sciences USA

Translational Psychiatry, Nature

Psychoneuroendocrinology

Journal of Neurodevelopmental Disorders

Neuroimage

Journal of child Psychology and Psychiatry

European journal of Neuroscience

PLoS ONE

Neuropsychopharmacology

Biological Psychiatry, Cognitive Neuroscience and Neuroimaging

Psychiatry Research

Molecular Autism

Life Sciences

#### **Society Membership**

2010-Present Society for Neuroscience

2012-Present International Society for Autism Research (INSAR)

2013-Present Society for Social Neuroscience

2016-Present Society of Biological Psychiatry

2018-Present American College of Neuropsychopharmacology (ACNP) – travel awardee – not a full member

## **PUBLICATIONS**

### **Research Articles**

**Andari E**, Duhamel JR, Zalla T, Herbrecht E, Leboyer M, Sirigu A. *Promoting social behavior with oxytocin in high-functioning autism spectrum disorders*. Proceedings of the National Academy of Sciences U S A. 2010 Mar 2;107(9):4389-94.

**Andari E**, Schneider F, Vindras P, Mottolese R, Sirigu A. *Oxytocin's fingerprint in personality traits and regional brain volume*. Cerebral Cortex. 2014 Feb;24(2):479-86.

**Andari E**, Richard N, Leboyer M, Sirigu A. *Adaptive coding of the value of social cues with Oxytocin, an fMRI study in autism spectrum disorder*. Cortex. 2016 Jan 19; 76:79-88.

Burkett JP, **Andari E**, Johnson ZV, Curry DW, de Waal FB, Young LJ. *Oxytocin-dependent consolation in rodents*. Science. 2016 Jan 22;351(6271):375-8.



Morrier M, Ousley OY, Caceres-Gamundi GA, Segall MJ., Cubells J., Young L, and **Andari E**. Brief Report: Relationship between Severity Scores of ADOS-2, Module 4 and Social and Non-Social Standardized Assessment Measures in Autism Spectrum Disorder (ASD). Journal of autism and developmental disorders, 2017, J. Autism Dev Disorder. 2017 Dec;47(12):4018-4024.

Li G, Liu P, **Andari E**, Zhang A, Zhang K. The role of amygdala in patients with Euthymic Bipolar Disorder during resting state'. Frontiers in Psychiatry, 2018 Sep 19; 9:445.

**Andari E**, Nishitani S, Kaundinya G, Caceres GA, Morrier MJ, Ousley O, Smith AK, Cubells JF, Young LJ. *Epigenetic modification of the oxytocin receptor gene: implications for autism symptom severity and brain functional connectivity*. Neuropsychopharmacology. 2020 Jan 13.

Imami A., O'Donovan S, Creeden J, Wu X, Eby H, McCullumsmith CB, Uvnäs-Moberg K, McCullumsmith RE, and **Andari E**. Oxytocin's Anti-inflammatory and Pro-immune functions in COVID-19: A Transcriptomic Signature Based Approach. Physiological Genomics. August 2020.

**Andari E**, Massa NM, Fargotstein MD, Taylor NB, Halverson DM, Owens AV, Currin DL, Bhattacharya A, Gitman D, Cuthbert BC, Young LJ, Duncan EJ. Effects of oxytocin on emotion recognition in schizophrenia, a randomized double-blind pilot study. Journal of Clinical Psychopharmacology. Accepted. 2021.

Rilling JK, Richey L, **Andari E**, Hamman S. The neural correlates of paternal consoling behavior and frustration in response to infant crying. Developmental Psychobiology. Accepted. 2021.

Creeden JF, Imami AS, Eby HM, Gillman C, Becker KN, Reigle J, **Andari E**, Pan ZK, O'Donovan SM, McCullumsmith RE, McCullumsmith CB. Fluoxetine as an Anti-Inflammatory Therapy in SARS-CoV-2 Infection. Biomedicine & Pharmacotherapy. Accepted. 2021

## Reviews

**Andari E**, Schneider F, Vindras P, Mottolese R, Leboyer M, Sirigu A. *Le rôle de l'ocytocine dans l'autisme*. L'Encéphale 2012; 38 (4), S18.

Hennessey T, Andari E, Rainnie DJ. RDoC-based categorization of amygdala functions and its implications in autism. Neurosci Biobehav Rev. 2018 Jul; 90:115-129.

## Book Chapters

**Andari E**, Sirigu A. *Autism and oxytocin*. In: McGraw-Hill Yearbook of Science and Technology 2012. McGraw-Hill, New York, USA.

Merhoum N, Mengarelli F, Mottolese R, **Andari E**, Sirigu A. *Social Functioning in Autism*. In: Leboyer M, Chaste P (Eds.), *Autism Spectrum Disorders: Phenotypes, Mechanisms and Treatments*. S. Karger, Basel, Switzerland.

**Andari E**, Hurlemann R and Young LJ. A precision Medicine Approach to Oxytocin Trials. Curr Top Behav Neurosci. 2018; 35: 559-590.

Borie A.M., Theofanopoulou C, and **Andari E**. The promiscuity of the oxytocin-vasopressin systems and their involvement in autism spectrum disorder. *The Human Hypothalamus: Hypothalamus and Neuropsychiatric Disorders*. Handbook of Clinical Neurology, 2021.

## Comments

**Andari, E**. *The need for a theoretical framework of social functioning to optimize targeted*

*therapies in psychiatric disorders*. Biological Psychiatry. 2016 Feb 1;79(3) : e5-7.

### Editorials

**Andari E.** Editorial: *Oxytocin's routes in social behavior: into the 21st century*. Frontiers in Behavioral Neuroscience. 2015 Aug 25; 9: 224.

### Online Articles

**Andari E.** Implication de l'ocytocine, hormone de l'attachement, dans l'autisme. *La Lettre des Neurosciences*, January 2012. <http://www.neurosciences.asso.fr/V2/index2.php?sub=610>

### Hot topics

**Andari E.** and Rilling J. Genetic and epigenetic modulation of the oxytocin receptor and implications for autism. Neuropsychopharmacology Reviews, Hot topics. *Psychiatry meets big data*. September 2020.

### Preprints:

Creeden J., et al., Andari E, et al. Fluoxetine as an Anti-inflammatory therapy in SARS-CoV-2 infection. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3736012](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3736012)

### Paper under revision:

Li et al., Low-frequency fluctuations in the anterior cingulate cortex and insula differentiate major depression disorder patients with and without anxiety. Under review.

Todorovic K., O'Leary B, Ward KP, Devarasetty PP, Lee SJ, Knox M, **Andari E.** Prevalence, increase and predictors of child maltreatment and intimate partner violence during COVID-19 pandemic.

### Papers under preparation, to be submitted:

**Andari E,** Burkett JP, Percy R, Inoue K, Ressler K, Dias B and Young LJ. The role of insula and oxytocin in social transmission of fear in mice. In preparation.

**Andari E,** Kaundinya G, Caceres G, Ousley O, Morrier M, Rilling J, Cubells JF, Young LJ. *Target Engagement for Intranasal Oxytocin on brain function in Autism Spectrum Disorder*. In preparation.

### Abstracts

**Andari E,** et al. *Socio-emotional deficits in high-functioning autism*. Poster presentation. EPFL-LATSIS Symposium "Understanding VIOLENCE: Recent advances on biology, sociology, and modeling." Lausanne, Switzerland. Feb 2009.

**Andari E.** *Promoting Social Behavior with Oxytocin in High Functioning Autism*. Poster presentation. Frontiers in Neuroscience Conference Abstract. 3rd Mediterranean Conference of Neuroscience, Alexandria, Egypt. Dec 2009.

**Andari E,** et al. *Oxytocin's fingerprints in brain volume*. Poster presentation. Society for Social Neuroscience Pre-meeting (SFN pre-meeting). San Diego, CA. Oct 2011.

**Andari E,** et al. *Oxytocin's signature in social deficits of Autism Spectrum Disorder*. Poster presentation. International Meeting for Autism Research. Toronto, Canada. May 2012.

Burkett JP, **Andari E**, Johnson ZV, Curry DW, de Waal FBM, Young LJ. *Consolation behavior in prairie voles: biological mechanisms and relevance for Autism*. Poster presentation, Society for Social Neuroscience Pre-meeting (SNF pre-meeting), Chicago, IL. Nov 2015.

**Andari E**, Fargotstein M, Halverson D, Currin D, Bhattacharya A, Gitman D, Cuthbert B, Young LJ, Duncan E. *Effects of Oxytocin on Social and Emotional Responsiveness in Patients with Deficit Syndrome Schizophrenia: A Preliminary Study*. Poster presentation. Society for Biological Psychiatry Annual Meeting, Atlanta, GA. May 2016.

Morrier MJ, Ousley O, Segall MJ, **Andari E**, Cubells JF, Young LJ. *Correlations between ADOS-2: Module 4 Comparison Severity Scores and standardized assessment measures: a preliminary examination in adults with Autism Spectrum Disorder*. Poster presentation. International Meeting For Autism Research (IMFAR), Baltimore, Maryland. May 2016.

**Andari E**, Burkett JP, Percy RC, Inoue K, Dias BG, Ressler KJ, Young LJ. *The dissociation between social fear learning and non-social fear learning in oxytocin receptor knockout mice*. Poster presentation. Atlanta Autism Consortium Autism Research Symposium, Fall 2015.

Burkett JP, **Andari E**, Johnson Z, Curry DW, Young LJ. *Consoling behavior in the prairie vole: Biological mechanisms and relevance to Autism*. Poster presentation. Atlanta Autism Consortium Autism Research Symposium, Fall 2015.

Burkett JP, **Andari E**, Johnson Z, Curry DW, Young LJ. *Consoling behavior in the prairie vole: Biological mechanisms and relevance to Autism*. Poster presentation. Atlanta Autism Consortium Autism Research Symposium, September 2016.

**Andari E**, Burkett JP, Percy RC, Inoue K, Dias BG, Ressler KJ, Young LJ. *The role of oxytocin and anterior insula activity in prosocial responses in mice*. Poster presentation. S4SN Annual Meeting, Nov 2016.

Burkett JP, King L, **Andari E**, Young LJ. *Consolation behavior in prairie vole is predicted by oxytocin receptor density in anterior cingulate cortex*. Poster presentation. S4SN Annual Meeting, Nov 2016.

Burkett, JP, King L, **Andari E**, Young LJ. *Consolation behavior in prairie vole is predicted by oxytocin receptor density in anterior cingulate cortex*. Oral presentation. S4SN Annual Meeting, Nov 2016.

Caceres G, Kaundinya G, Nishtani G, Smith AK, Cubells JF, Young LJ, **Andari E**. *The role of oxytocin and epigenetics in behavior and brain activity in patients with Autism Spectrum Disorder, an fMRI study*. Poster presentation, Emory College of Arts and Sciences, Symposium for undergraduate in Neuroscience at Emory, April 23<sup>rd</sup> 2018.

**Andari E**, Kaundinya G, Caceres G, Ousley O, Morrier M, Rilling J, Cubells JF, Young LJ. *Targeted action of intranasal oxytocin on brain functional connectivity in adults with Autism Spectrum Disorder*. Poster presentation, 57<sup>th</sup> annual meeting of American College of Neuropsychopharmacology. December 9-13, 2018 at the Diplomat Beach Resort in Hollywood in Florida- USA.

**Andari E**, Kaundinya G, Caceres G, Ousley O, Morrier M, Rilling J, Cubells JF, Young LJ. *Target Engagement for Intranasal Oxytocin on brain function in Autism Spectrum Disorder*. Poster presentation at Society for Social Neuroscience 2018 Annual meeting. November 2, 2018 in San Diego.

**Andari E**, Kaundinya G, Caceres G, Ousley O, Morrier M, Rilling J, Cubells JF, Young LJ. *Target Engagement for Intranasal Oxytocin on brain function in Autism Spectrum Disorder*. Poster presentation at Yerkes Research Symposium. November 29, 2018, Emory University in Atlanta,

GA, USA.

**Andari E**, Kaundinya G, Caceres G, Ousley O, Morrier M, Rilling J, Cubells JF, Young LJ. *Targeted Action of Intranasal Oxytocin on Brain Functional Connectivity in Adults with Autism Spectrum Disorder*. Poster Travel Award. 57<sup>th</sup> Annual meeting of the American College of Neuropsychopharmacology. Hollywood, FL.

**Andari E**, Kaundinya G, Caceres G, Ousley O, Morrier M, Rilling J, Cubells JF, Young LJ. *Targeted action of intranasal oxytocin on brain functional connectivity in Autism Spectrum Disorder*. Presentation at Social and Affective Neuroscience Society, May 2019.

**Andari E**, Nishitani S, Kaundinya G, Caceres GA, Morrier MJ, Ousley O, Smith AK, Cubells JF, Young LJ. *Epigenetic Modifications of the Oxytocin Receptor Gene and Autism Spectrum Disorders*. ACNP 58<sup>th</sup> Annual meeting Poster session, December 2019.

**Andari, E.**, Cotton, A., Kaplinsky, N., Todorovic, K., Cubells, J., Rillings, J., & Young, L. (2020, July). *Oxytocin effects on implicit social biases in adults with Autism Spectrum Disorder*. Poster presented at the annual University of Toledo Medical Student Research Program, Toledo, OH, United States.

**Andari, E.**, Einloth, K.R., Nishitani, S., Kaundinva, G., Todorovic, K., Smith, A., Cubells, J., & Young, L. (2020, July). *Epigenetics and brain correlates of prosociality in autism*. Poster presented at the annual University of Toledo Medical Student Research Program, Toledo, OH, United States.

Devarasetty, P., Todorovic, K., Ward, K. P., Lee, S. J., Knox, M., & **Andari, E.** (2020, October). *Evidence for a surge in child maltreatment and intimate partner violence during COVID-19*. Annual meeting of the Academy on Violence and Abuse Global Health Summit, Dallas, TX, United States.

**Andari, E.**, Cotton, A., Kaplinsky, N., Todorovic K., Cubells, J., Rilling, J., Young, L. (2020, December). Dose-dependent effect of oxytocin on ACC and amygdala in patients with autism spectrum disorders. American College of Neuropsychopharmacology, virtual meeting.

**Andari, E.**, Cotton, A., Kaplinsky, N., Todorovic K., Cubells, J., Rilling, J., Young, L. (2021, April). *Oxytocin Dose-Dependent Effects on Brain Function During a Socially Dynamic Game in Autism Spectrum Disorders*. Poster for Society of Biological Psychiatry, virtual meeting.

**Andari, E.**, Cotton, A., Kaplinsky, N., Todorovic K., Cubells, J., Rilling, J., Young, L. (2021, May). Dose-dependent effects of oxytocin on brain function during an interactive social game in Autism Spectrum Disorders.

## Selected media and reports

### Newspapers and magazines

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| Feb 2010 | Nature Highlight, " <i>Hopes grow over potential autism treatment.</i> "                              |
| Feb 2010 | Science news, " <i>Trust Hormone may improve Autism.</i> "  |
| Feb 2010 | National Geographic, " <i>Can a sniff of oxytocin improve the social skills of autistic people?</i> " |
| Feb 2010 | The Sunday Times, " <i>Nasal spray gives hope on autism.</i> "  |
| Feb 2010 | The Washington Post, " <i>Hormone-infused nasal spray found to help people with autism.</i> "         |
| Feb 2010 | ScienceDaily, " <i>Oxytocin improves social behavior of patients, study finds.</i> "                  |
| Feb 2010 | WebMD, " <i>Oxytocin Hormone May Treat Autism.</i> "  |

- Feb 2010 Le Progrès, *“Autisme: l’hormone de l’amour porteuse d’espoir.”*
- Feb 2010 Le Figaro, *“Une molécule pour sortir les autistes de l’isolement.”*
- Feb 2010 CNRS communication, *“Autisme: l’administration d’ocytocine améliore le comportement social des patients.”*
- Jan 2016 IFL Science, *“Love hormone helps prairie voles console others in distress.”*
- Apr 2016 Vox, *“How scientists fell in and out of love with the hormone oxytocin.”*
- August 2020 Newsletter highlight as alumni, University Saint-Joseph, Beirut.  
[https://www.usj.edu.lb/sio/newsletter/article.php?num=41&item=Elissar\\_andari](https://www.usj.edu.lb/sio/newsletter/article.php?num=41&item=Elissar_andari)
- October 2020 American Physiological Society, paper selected for APS select  
<http://apsselect.physiology.org/>
- October 2020 Russian News: Science and Life. Oxytocin and its synthetic counterparts can help fight COVID-19 <https://m.nkj.ru/news/39596/>
- October 2020 WebMD. “Love hormone could hold key to treating COVID”.  
<https://www.webmd.com/lung/news/20201009/love-hormone-could-hold-key-to-treating-covid>
- October 2020 U.S. News and world report. “Love Hormone could hold key to treating COVID”.  
<https://www.usnews.com/news/health-news/articles/2020-10-09/love-hormone-could-hold-key-to-treating-covid>
- November 2020 UToledo Press release: Utoledo Researcher explores potential for commonly prescribed hormone to fight COVID-19.  
[https://news.utoledo.edu/index.php/11\\_24\\_2020/utoledo-researcher-explores-potential-for-commonly-prescribed-hormone-to-fight-covid-19](https://news.utoledo.edu/index.php/11_24_2020/utoledo-researcher-explores-potential-for-commonly-prescribed-hormone-to-fight-covid-19)
- December 2020 UToledo Press release: Preliminary Research from UToledo finds alarming rates of pandemic-driven child abuse.  
[https://news.utoledo.edu/index.php/12\\_22\\_2020/preliminary-research-from-utoledo-finds-alarming-rates-of-pandemic-driven-child-abuse](https://news.utoledo.edu/index.php/12_22_2020/preliminary-research-from-utoledo-finds-alarming-rates-of-pandemic-driven-child-abuse)
- December 2020 13ABC news: Child abuse cases spike during pandemic according to new research. <https://www.13abc.com/2020/12/23/child-abuse-cases-spike-during-pandemic-according-to-new-research/>

### Commentary on my research papers:

- Commentary on RDoC-based categorization of amygdala functions and its implications in autism: “Amygdala and oxytocin functioning as keys to understanding and treating autism: Commentary on an RDoC based approach”. Preckel and Kanske, Max Plank Institute. Neuroscience and Biobehavioral Reviews, 94 (2018).