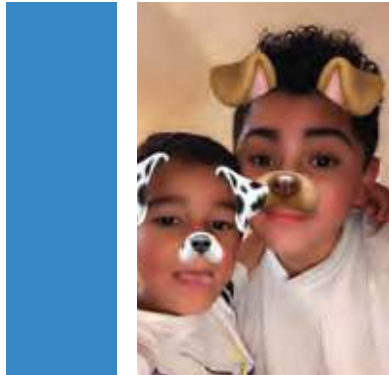


**annual report**



**2020**

January 1 -  
December 31



**Together, we can make a difference.**



**research.  
support.  
empowerment.**



**AUTISM RESEARCH INSTITUTE**  
*Autism is Treatable*

# 2020 Accomplishments



AUTISM RESEARCH INSTITUTE  
*Autism is Treatable*



## RESEARCH

*We continued to take an active role in impactful autism research.*

ARI awarded more than \$300,000 in research grants during 2020 to fund exciting and innovative investigations that hold real potential for impacting the lives of those on the autism spectrum.

Since the onset of the Covid-19 pandemic, colleagues around the world have shared that they are working as creatively as they can in their effort to find answers for individuals with autism during this time. Researchers are concerned about securing funding to keep their investigations at a high scientific level of integrity.

ARI continues expanding its Scientific Advisory Board, which attracts leading researchers in all areas related to the understanding of the underlying biology of autism. Members keep us up-to-date on promising new findings and provide invaluable guidance for ARI's rigorous grant review process by volunteering their time to assess submissions and participate in a juried review of finalists. They also present at our free, online webinars.

ARI is planning now for our post-pandemic national and regional think tanks, set to resume in the fall of 2021.

ARI provides researchers with advice and guidance on how to optimize their experimental designs. We also help them recruit participants for their studies.

ARI assists tissue banks, including a brain tissue bank for the National Institute of Child Health and Human Development at the University of Maryland and a gastrointestinal tissue bank at the Digestive Function Laboratory Repository at Massachusetts General Hospital in Boston.

ARI publishes its quarterly science newsletter, *Autism Research Review International (ARRI)*, where we report on current medical, sensory, and educational research.

## COVID-19 SUPPORT

*We pivoted quickly to offer new topics on how to cope at home during the pandemic.*

Since the onset of the Covid-19 pandemic, we have leveraged technology to step up the frequency of our webinars — we offered more talks in 2020 than in any past year. Presentations on coping at home during the pandemic were offered in addition to our regularly scheduled research updates, and talks on appropriate medical care, ABA, assessment, educational therapies, and adult issues.

During Autism Awareness Month last April, we released Covid-19 social stories and downloadable handouts on handwashing, mask wearing, and social distancing in both English and Spanish.

## NEW BOOK ON ANXIETY IN AUTISM

*Understanding and Treating Anxiety in Autism*

was released during the fall of 2020. Edited by ARI Executive Director Stephen M. Edelson and past ARI Board Member Jane B. Johnson, and written by leading experts in the field, the book summarizes current perspectives and research on anxiety for people with autism including medical, neurological, immunological, gastrointestinal, nutritional, sensory, and behavioral concerns. ARI is also finalizing a new book, which focuses on understanding and treating sleep disturbances in autism.



## E-NEWSLETTERS

ARI's monthly e-newsletter keeps nearly 140,000 subscribers up-to-date on new resources and research updates. ARI also publishes the bimonthly *Clinical Research in Autism* for clinicians.

## CONTINUING MEDICAL EDUCATION

ARI offers, in joint providership with the Cleveland Clinic, complimentary *AMA PRA Category 1 Credit™* to physicians. Connecting physicians to improved standards of care is crucial to amplifying understanding of the medical nature of the disorder. Translations of talks in Spanish and Portuguese are available. New talks on epilepsy and autism were completed and released during June of 2021. Learn more at [ARI-CME.org](http://ARI-CME.org).

## OUTREACH IN THE U.S.

*We continued providing personal support for individuals and families.*

ARI sponsors a telephone support line and provides the opportunity for viewers of its live webinars to ask questions directly to the presenters. We also moderate active social media pages on Facebook, Twitter, Pinterest, and YouTube for parents and providers.

## INTERNATIONAL OUTREACH

*We continued to provide expanded outreach to the global autism community.*

ARI is an NGO (non-governmental organization) of the United Nations.

ARI facilitates translation of many online articles, as well as the Autism Treatment Evaluation Checklist (ATEC). Now available in 25 languages, the ATEC is completed by more than 150 users per day.

ARI networks with 213 support groups, located in 77 countries, and continues to add more. The goal is to improve communication and to share information about the science and evidence-based treatments.



## Our Mission

The mission of the Autism Research Institute is to support the health and well-being of people affected by autism through innovative, impactful research and education.

## Our Community

**1 in 54 identified with ASD**  
Statistics from the Centers for Disease Control and Prevention (CDC) announced in March, 2020 underscore the need for autism research funding.

## Our Commitment

ARI awarded more than \$300,000 in grants to support early-stage scientific investigations. More than 88¢ of every \$1 received by ARI directly funds research and education efforts.

## Message from our Executive Director and Chairman of the Board

With so much happening in 2020, many people missed the Centers for Disease Control's announcement that autism now affects 1 in 54 children and teenagers and 1 in 45 adults in the United States. These prevalence rates underscore the urgent need to fund research on the causes of autism and to identify the most effective treatments.

Unfortunately, we continue to hear from researchers about the steep challenges they face in their efforts to secure funding from government agencies and other sources. Not surprisingly then, we received more applications for research grants than ever in 2020. In response to this need, we awarded more than \$300,000 in grants to support early-stage scientific investigations that have the potential to contribute significantly to our understanding of autism.

So much changed around us last year, yet one thing that remains constant is ARI's impact. In this annual report, you will see the results of our recent efforts to support leading-edge research and provide much-needed guidance and support for affected individuals and their families through our education programs.

As the situation with Covid-19 became urgent worldwide, the pandemic did not impede our ability to make significant strides. We were among the first national autism organizations to provide practical Covid-19 resources for individuals and families affected by autism. We expanded our efforts to network with researchers and support groups worldwide. We also increased our online presence with biweekly webinars for parents and professionals and continued providing continuing medical education webcasts for healthcare providers at no charge. In addition, we published a book on anxiety and autism and continued to publish our quarterly science newsletter.

Today, as we begin our 55th year, we remain committed to looking beyond the present and aim for breakthroughs that will benefit individuals of all ages on the autism spectrum. None of this would be possible without your contributions to our mission and our community.

Sincerely,

Stephen M. Edelson, PhD  
*Executive Director*  
*Autism Research Institute*

Marvin Natowicz, MD, PhD  
*Cleveland Clinic*  
*Chairman of the Board, ARI*



## ARI Touches Lives

“

“Our family has been impacted by having a child with autism in ways I never imagined. I have learned to have empathy for others going through the same experience. I have also learned that parents are the best advocates for their children, and their success. We focus on what works best for our son, like being outdoors and exploring at the beach — love, patience, and nature. **It is important to stay informed and remain proactive. Searching for and finding resources like ARI can make a huge difference.**”

— GRISELDA WEST  
Highland Park, IL



Photo credit: Rae Photography

“My son used to hate crowds and loud noises, but with therapy and appropriate medical care, he has blossomed. For my wedding day, he braved all the people and the music to walk me down the aisle. I told him if he was scared he could squeeze my hand and look down at the ground so he wouldn't see everyone looking at him. He did both and made it through the entire ceremony without incident.

**This was one of the proudest days of my life: to have him be a part of this special day and to show the world how far he's come.**”

— SHEILA EDWARDS  
Bargersville, IN

“ARI was one of my first sources of information when my son was first diagnosed back in 1988. There were a lot of dubious therapies around proposing to cure autism, and it was helpful to have a newsletter that had the latest research written in layman's terms. My son still has challenges, but also many endearing qualities. He does wood working with power tools and sells his items at craft fairs, and works part-time.”

— JULIE PARRY  
Spokane, WA



Year round, ARI receives feedback from families and individuals who share their personal experiences with autism, including diagnosis, challenges, treatment, progress, and more. We are grateful for this information, as it is vital to our mission and goals. We thank all who submitted their photos and stories. Those featured here, as well as on the cover and throughout this report, were selected from this group, and include the Alcoba, Díaz, Reagan, Trébol, and Zulevic families.

**“ARI has helped me more times than I can count, both personally and professionally.** I am a Board Certified Behavior Analyst (BCBA), but first and foremost I am mom to a 19 year-old with ASD. Your topics are right on par with my son’s needs, as well as those of my clients — and ARI offers them for free. I sit on a local board for the Council on Developmental Disabilities, and I’ve shared many of your events with our members there as well. Please keep the wealth of information coming!”

— RUTH TROUT GONIA, MS Psy, BCBA  
Behavior Analyst  
Louisville, KY



Photo credit: KeenePhotography



**“My son Kevin and I are most grateful to Dr. Bernard Rimland for a lifetime of learning and acceptance of his diagnosis.** Years ago, I located Dr. Rimland in San Diego and subscribed to the ARI newsletter. Dr. Rimland would speak with us on a monthly basis answering my questions or frantic worries, and suggesting intervention strategies.

After Dr. Rimland’s recommended treatments, Kevin began talking, reading, and making progress. He played on the basketball and football teams through high school, and graduated with high academic achievement. Now in his 30s, he is able to handle his own banking, pay bills online, play on a semi-pro football team and, with the guidance of a personal assistant, navigate social interaction. I credit Dr. Rimland with educating me and helping my son, and I want to share the story of how far Kevin has come.”

— CONSTANCE SMITH  
Dallas, TX

**“I learned about ARI’s work in the early 1990s** after reading Temple Grandin’s book *Emergence: Labeled Autistic*. I felt particularly drawn to ARI because of my love of research and Dr. Bernard Rimland’s book *Infantile Autism: The Syndrome and Its Implications for a Neural Theory of Behavior*, **which helped me understand my daughter more than any other source.** I have followed ARI ever since; I still have some of the original paper copies of ARI’s newsletters. Now I get their newsletters online.”

— JULIEKAY DUDLEY  
Union, OR



# ARI Supports Broad Areas of Research



## ARI Advocates for Research That Makes a Difference

Our focus at ARI is to support innovative autism research while providing the latest science-based information for people of all ages on the autism spectrum. We do this through our annual and regional think tanks, in-person and online educational events and courses, free webinars, and by funding the studies that hold the most promise for making a difference in the lives of people with autism.

While the causes of ASD remain unclear, recent scientific advances challenge the traditional view of autism as an untreatable disease — as one that is genetically hardwired. These developments support the position that ARI has always maintained: *Autism is Treatable*. ARI continues to pioneer research, outreach, and cooperative efforts with other organizations worldwide.



**Is it  
Autism?**



**Medical, Sensory  
& Behavioral  
Symptoms**



**Screening &  
Assessment**



**Treatment**

## ARI Convenes Scientists and Clinicians Face-to-Face

Since 1995, the Autism Research Institute has brought together experts at its annual scientific think tank meetings to address novel questions and discuss issues related to promising interventions. ARI also funds and sponsors consensus meetings to facilitate ongoing discussion about the latest findings and approaches to understand and treat medical and behavioral symptoms associated with autism spectrum disorders.

We have always been committed to asking the tough questions. For more than 50 years, our work has influenced how researchers approach investigating the cause of and effective treatments for autism spectrum disorders.

**Our purpose is clear:**

***Advance research by following the science wherever it leads.***

## ARI Creates Free Online Continuing Education on Autism for Physicians and Other Healthcare Providers

ARI works in partnership with leading experts to provide professional education that gives thoughtful, inquisitive clinicians the means to offer support that is safe and effective.

Informing physicians about appropriate standards of care is crucial to our mission — in joint providership with the Cleveland Clinic we continue to offer complimentary CME-certified online education to amplify understanding of the medical nature of the disorder. All internet users can view the *Autism Spectrum Disorders: Research and Medical Treatment Implications* webcast series for free online. Learn more at [Autism-CME.org](http://Autism-CME.org).

**New series released June, 2021: Epilepsy and Autism**





## ARI Collaborates to Support Tissue Donation

Research on brain tissue is needed to understand the underlying causes of autism. The neural configuration may also provide us with clues regarding appropriate treatment. Besides the brain, another organ important to understanding autism is the bowel; ARI supports the gastrointestinal depository at Massachusetts General in Boston.

## ARI Compiles Precious Data

Since the mid-1960s, ARI has been collecting data regarding developmental history and symptoms. ARI is involved in data collection for several major research projects.

## ARI Facilitates Expert Consensus Reports

ARI is facilitating the collaboration among distinguished researchers and clinicians to write summary reports on known findings as well as areas requiring further investigation regarding diverse aspects of autism, including gastrointestinal function, genetic issues, immunology, metabolism, nutrition, neurology, neuropathology, and sleep.

## ARI Conducts an International Senior Survey [ASDSeniorSurvey.com](https://ASDSeniorSurvey.com)

We are conducting an online survey of seniors to collect data about autism through the entire lifespan. We anticipate that this study will inspire others to study aging issues as well as better inform the autism community, government agencies, and other welfare and health-related organizations. We hope the results will provide insight about the needs and challenges faced by seniors with autism (aged 50 years or more) and their support providers.



As a clinician specializing in the treatment of children with autism, I have been privileged to have worked alongside pioneers in the field for over a half-century, including Drs. Bernard Rimland and Stephen M. Edelson. Recently, Dr. Edelson provided support and guidance on our research; he not only introduced the study through the *Autism Research Review International*, but also arranged a virtual presentation of our findings to the Moscow Autism Challenge Center in May, 2021. **Without ARI's support, our data may have simply been set aside, and eventually discarded. Instead, we are now looking together at future studies to shed light on new, specific issues in autism. Thank you, ARI."**

— DEAN D. ALEXANDER, PhD  
ABA Supervisor, Lorenz Counseling Services  
Rancho Cucamonga, CA

# ARI Funds Impactful Research Studies



## **Role of Gut Mucosal Immunity on Behavioral and Neuroinflammatory Profile in a Mouse Model of Autism – The Early-Life Immune-Activation Model**

Monica Boirivant, Laura Ricceri, Roberta De Simone, Rosa Luisa Potenza  
Istituto Superiore di Sanità in Rome, Italy

Inflammatory and immune changes are recognized as pivotal mechanisms in ASD, particularly the ones involving the microbiota-mucosal immune response development. Few data are so far available in ASD mouse models concerning the primary contribution of mucosal immune dysfunction to behavioral and neuroinflammatory profiles as well as to dysbiosis. This project aims to investigate the role of gut mucosal immunity on the behavioral and neuro-inflammatory profile in the early-life immune activation mouse (EIA), a model including both prenatal and postnatal immune challenges. We plan to achieve our aim by the evaluation of the effect of selective blockade of gut-experienced lymphocyte traffic to intestinal lamina propria (by the administration of an antibody directed against the integrin alpha4 beta7, an integrin responsible for lymphocyte trafficking in the gut mucosa). The effects of the treatment will be assessed on ASD-behavioral phenotype, on local (brain and gut-associated lymphoid tissue) and systemic (blood and spleen) immune-inflammatory changes, as well as on fecal microbiota composition. Results will: a) clarify the mucosal contribution in ASD pathogenesis and b) possibly provide specific biomarkers to be used in future studies to identify subsets of ASD patients for personalized therapeutic approaches.

## **The Relationship between Hypermobility-Related Disorders in Mothers with Fragile X premutation, Maternal Fragile X Mental Retardation Protein (FMRP) Levels, and Autism Risk in the Child** Carrie Buchanan, MD, Greenwood Genetic Center Emily Casanova, PhD

Previous research suggests that hypermobility-related disorders in mothers, such as Ehlers-Danlos syndrome (EDS), may be a significant risk factor for development of autism in their children. Our team has identified an EDS-like presentation in a subset of adult women with the Fragile X premutation. Meanwhile, roughly 50% of children with Fragile X syndrome (FXS) develop autism. However, it has usually been assumed that the variables underlying that risk are due to differences in genetic background. In this study, we will be investigating the maternal EDS presentation in Fragile X premutation and its potential relationship to the occurrence of autism in the child as a first step towards addressing the roles of the uterine environment in autism risk. In addition, because our preliminary data suggests the EDS-like presentation in Fragile X premutation may be associated with unusually low fragile X mental retardation protein (FMRP) levels, we will be collecting blood samples to measure FMRP levels in order to further study its relationship with hypermobility in these mothers.

## **Quantitative Subcellular Proteomics in Children and Adults with Idiopathic Autism**

S. Hossein Fatemi, MD, PhD  
University of Minnesota

Autism is a severe neurodevelopmental disorder with a rising prevalence of 18.5 per 1000 (1 in 54) in the United States. There have been few studies of the proteome of brains of individuals with autism. Our long-range goal is to identify biomarkers for autism by combining sub-cellular fractionation and proteomics. The objective of the current application is to determine the subcellular proteomes of individuals with autism vs. controls. The central hypothesis is that proteomics will identify unique subcellular proteomes in subjects with autism vs. controls and that there will be differences related to age and brain region. The rationale for the current proposal is that there is a dearth of brain subcellular proteomic studies related to autism. The project consists of the following specific aim: Determine the proteome of the synaptic fraction in superior frontal cortex (BA9) and cerebellar vermis of subjects with idiopathic autism vs. healthy controls. Our work is innovative because these studies will provide important information about protein dysregulation in autism.

## **Integrity of Vision and Eye Morphology in Autism Spectrum Disorders**

Vanessa Troiani, PhD and Antoinette Dicrisio, PhD

Numerous studies have identified atypical visual attention and perception within Autism Spectrum Disorders (ASD), yet there is relatively little research on eye morphology, clinical measures of vision, and/or ocular function in these individuals. A few small studies have noted increased prevalence of refractive errors and optic nerve abnormalities in those with ASD, suggesting that atypical visual processing and perception may be driven, in part, by abnormal morphology and function in the eye and retina. In order to dramatically improve our understanding of atypical vision in ASD, we will leverage existing clinical optometry and ophthalmologic records to characterize abnormal eye and retinal features associated with ASD. Critically, the use of existing data from electronic health records will enable characterization of ocular function in a large sample that includes both low and high functioning individuals. Additionally, we will recruit a subsample of individuals seeking an ASD diagnosis at our neuro-developmental clinic in order to assess the relationship between functional visual metrics, ocular anomalies, and their association with core diagnostic traits of ASD. Understanding differences in eye-level metrics in individuals with ASD will lay the groundwork for understanding the link between eye function and social, cognitive, and perceptual skills.



In 2020, ARI awarded more than \$300,000 in grants to scientists whose work will have a direct impact on the lives of individuals diagnosed with ASD. The funds supported research in immune, gastrointestinal, metabolic, neurologic, and sensory issues. Highlighted here is a sampling of research studies funded by ARI.



### **Autoantibody Mediated Pathology in Clinical Maternal Autoantibody Mediated (MAR) Autism Spectrum Disorder**

**Judy Van de Water, PhD**  
**UC Davis, MIND Institute**

The goal of this study is to understand the mechanisms driving the autoantibody mediated pathology in clinical Maternal Autoantibody Mediated (MAR) ASD, the most prevalent ASD subtype identified to date. Identification of disrupted cell-specific signaling pathways or the molecules involved provides an opportunity for early diagnostic or therapeutic intervention strategies.

One aim of this proposal is to verify the distribution and uptake of maternal MAR IgG throughout the brain. Preliminary analysis of MAR offspring suggests targeting of IgG to specific cells in the brain. Based upon the location and shape of the labeled cells, we hypothesize that MAR autoantibodies (aAbs) preferentially target neural precursor cells (NPCs). To validate the extent of Ab deposition in the brain, and to identify antibody-targeted cells, we will conduct multiplexed immunohistochemistry (IHC) on MAR rat brain tissue, using cell-specific markers for NPCs and differentiated cells, to detect IgG colocalization in the early postnatal rat brain. We also will determine how aAbs may interact with NPCs using cultured embryonic day 18 (E18) rat cortical tissue to examine NPC uptake of purified IgG from MAR rat dams. NPCs isolated from unexposed pups will be cultured with labeled MAR rat IgG, coupled with Fc-blocking strategies to examine whether Fc-receptor uptake may facilitate aAb uptake into cells.

We will also evaluate the effects of MAR aAb exposure on brain inflammation. Our hypothesis is that MAR IgG exposure during gestation will result in altered brain cytokine levels. To identify the nature of this response, we will examine brain lysates from post-natal day 2 (P2) MAR-exposed offspring to measure cytokines and chemokines related to inflammation, cell growth, and immune regulation. Interestingly, evaluation of preliminary cytokine data at P2 suggests upregulation of IL-6 and IFN- $\gamma$ , cytokines secreted mainly by glial subtypes in the brain. However, co-localization of IgG within glial cells was not apparent in preliminary IHC analysis. Therefore, we propose that the altered cytokine profile in P2 cortical brain lysates is a result of NPC-glia crosstalk. To evaluate this hypothesis, we will expose primary astrocytes and microglia to NPC culture supernatants from cells exposed to MAR or control rat IgG. This will allow assessment of the effects of MAR IgG on NPC-glia signaling during early development. We will determine if NPC-induced stimulation of astrocytes or microglia contributes to the altered cytokine secretion profile observed in neonatal animals exposed to MAR IgG treatment.

### **Probiotics, Microbiota, and Immunity: Therapy and Biomarkers of Social Behavior in Children Diagnosed with Autism Spectrum Disorders**

**Elisabetta Volpe, PhD**  
**Santa Lucia Foundation – Molecular Neuroimmunology Unit**

This study aims to test the potential benefit of *Lactobacillus Reuteri* MM4-1A in social behavior of children diagnosed with ASD. The project arises from recent studies in murine models demonstrating the benefits of the specific strain *L. Reuteri* MM4-1A in reducing behavioral symptoms of autism. We hypothesized that *L. Reuteri* MM4-1A may also favor social behaviors of autistic children. Moreover, we hypothesized that this specific probiotic improves social behavior by modifying gut microbiota composition and consequent immune response to gut microorganisms.

For this reason, we plan to perform 1) neuropsychiatric evaluation, 2) immunological analysis from blood samples, 3) microbiological analysis from stool, before supplementation with probiotic/placebo (time 0), and after six months of therapy.

From these analyses we will understand whether probiotic treatment is effective, and the involvement of immune system and microbiota in delineate the social behavior of children diagnosed with ASD.

Supplementation with *L. Reuteri* is non-invasive and non-toxic therapy, and could be a treatment that significantly ameliorates the life of a person with autistic spectrum disorder. Moreover, the understanding of the role exerted by microbiota and immune system in social behavior, will be useful for designing future therapeutic strategies aimed to implement the effect of *L. Reuteri* MM4-1A.

### **Clinical Manifestations and the Intestinal Microbiome in Individuals on the Autism Spectrum with Inflammatory Bowel Diseases**

**Harland Winter, MD**  
**Director, Pediatric IBD Program**  
**Massachusetts General Hospital**

Many individuals with an autism spectrum disorder (ASD) have comorbid conditions that impact not only on their quality of life, but also on longevity. Deaths from comorbid gastrointestinal disorders in individuals with ASD are over 40 times higher than neurotypical peers. Furthermore, unrecognized clinical presentations of underlying medical conditions may result in delayed diagnosis.

Specific aims:

- (1) To characterize the clinical presentation, response to therapy and outcomes of individuals with ASD who have Crohn's disease or ulcerative colitis;
- (2) To describe the mucosal associated microbiome in individuals with ASD and Crohn's disease/ulcerative colitis;
- (3) To continue to develop the biorepository as a resource for investigators needing access to mucosal biopsies, serum, DNA, RNA and stool from patients with and without ASD.

# ARI Provides Resources



**More than 750,000 viewers have watched ARI's free, expert webinars.**



We are thankful to ARI for the many webinars we have attended over the years. We have also used ARI's Autism Treatment Evaluation Checklist (ATEC) to track our son's progress. He is now 11 years old, and we are grateful for our community who has embraced our son and his differences."

— CARMEN SHRIMPLIN  
Jackson, Missouri

## ARI Democratizes Learning Through Online Webinars

ARI makes an effort to provide presentations that are unbiased and broad-reaching, and to assist families and professionals in making informed treatment decisions. We also strive to provide professional education that gives clinicians the means to offer appropriate support. We are grateful to the Johnson Center for Child Health & Development for working in partnership to offer many of these presentations.

## ARI Offers Free Online Screening Tools

### Autism Treatment Evaluation Checklist (ATEC)

Although researchers have published thousands of studies attempting to evaluate different biomedical and psycho-educational interventions intended to benefit those with autism, a major obstacle has been the lack of valid assessment tools designed to measure treatment effectiveness. The Autism Treatment Evaluation Checklist was developed by Dr. Rimland and Dr. Edelson to fill this need. Since its inception, hundreds of thousands of ATEC forms have been completed.



- Over 40,000 ATECs completed
- >150 completed per day
- Now available in 25 languages

## ARI Publishes Articles and Books on Critical Topics

### **Autism Research Review International**

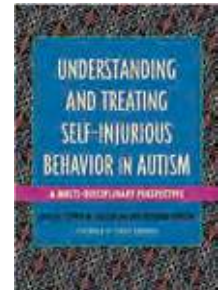
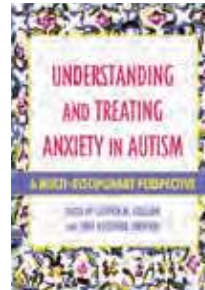
From its early days, ARI updated the autism community about research in the areas of behavioral, education, genetic, medical, and sensory issues. To that end, our founder began publishing a quarterly science newsletter, the *Autism Research Review International*, starting in 1987. Besides reporting on the most current and relevant research findings, the newsletter includes editorials on important insights and perspectives about the field. For many people, this newsletter is their main source of trusted information about science and autism.



### **ARI's latest books in its *Understand and Treating* series**

Our newest book, *Understanding and Treating Anxiety in Autism*, summarizes current perspectives and research on anxiety for people with autism, including neurological, medical, immunological, gastrointestinal, nutritional, sensory, and behavioral concerns.

*Understanding and Treating Self-Injurious Behavior in Autism* (2016), is a comprehensive analysis of this poorly understood and often devastating behavior in people with ASD or related developmental disabilities. Various treatment methods are also described in the book.



Each is edited by ARI Executive Director Stephen M. Edelson and past ARI Board Member Jane B. Johnson, and written by leading experts in the field. ARI is finalizing a new book, which focuses on understanding and treating sleep disturbances in autism.

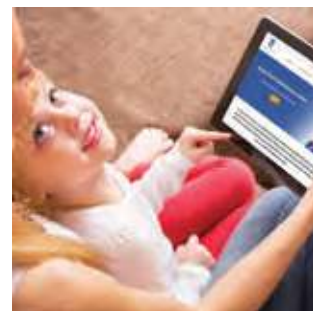
**Past Books** (All ARI publications are available on Amazon.com.)



## ARI Actively Engages with Its Community

### **Autism.org**

The advent of the Internet changed the autism community dramatically in the mid-1990s, and ARI has led the way since the “early days.” We post information on a daily basis to Facebook, Twitter, Instagram, FlipBoard, and Pinterest. These daily posts include descriptions of recent research studies and other important autism-related news.



### **Toll-free Telephone Hotline**

ARI offers a free hotline for parents and professionals, who can reach a live person for information and support.

### **Special Support**

ARI publishes a bimonthly e-newsletter titled *Clinical Research in Autism* for obstetricians, pediatricians, and nurses to keep them well-informed of research relevant to their practice.





# ARI's Presence is Worldwide

## ARI Conducts International Outreach and Translates Resources

ARI is a Non-Governmental Organization (NGO) of the United Nations providing educational resources and tools for users around the globe. Outreach includes targeted efforts working with network groups and clinicians worldwide, especially in regions where awareness and support are still emerging, such as areas of Eastern Europe and South America.

ARI networks with 213 groups in 77 countries, offers a telephone support line for caregivers, and translates many of its online articles, as well as the Autism Treatment Evaluation Checklist (ATEC). ARI's ATEC is offered for free, online, in 25 languages, including Chinese, Vietnamese, Hebrew, Lithuanian, Romanian, and Czech – and more than 150 users per day use this tool.



**During this pandemic, I have been closer to my children, both with autism, and shared beautiful moments. Thanks to ARI, I have learned more about this condition so that I can better understand my sons.”**

— OMAR ERNESTO JAEN SANCHEZ  
Panama City, Panama



ARI provides valuable resources for families and professionals in need of quality information. Our charity frequently directs our beneficiaries to ARI, as we know they will be in good hands – the standards and quality of ARI's webinars and publications are always very high.

**The research that ARI has pioneered and funded has had wide-ranging ripple effects, providing great hope as well as real, practical answers to countless families.** Their work has had a large effect in moving the field forward and improving lives all over the world, including the UK. We are grateful to ARI for paving the way and for continuing to shine a light.”

— NATASA BLAGOJEVIC-STOKIC  
ThinkingAutism.org.uk  
United Kingdom



Dr. Stephen Edelson presenting in Turkey in 2019.



**ARI has given us tools to better understand ASD by providing a more humane and effective science-based approach. This has allowed us to change the paradigm we knew, and give a better quality of life and hope to our patients and their families.** We are forever thankful to Drs. Bernard Rimland and Stephen Edelson, who always responded promptly to our questions, laying the scientific foundations of our 40-year-old institution.”

— MARÍA RUSSO, President  
Sociedad Venezolana  
para Niños y Adultos Autistas  
Venezuela

# Financial Summary



## 2020 Financial Overview

### FUNDING

Donations and Grants \$ 824,189

### PROGRAMS

Grants for Research \$ 301,895

Online Education and Resources \$ 53,256  
Webinars/Website/  
Physicians' Training-CME

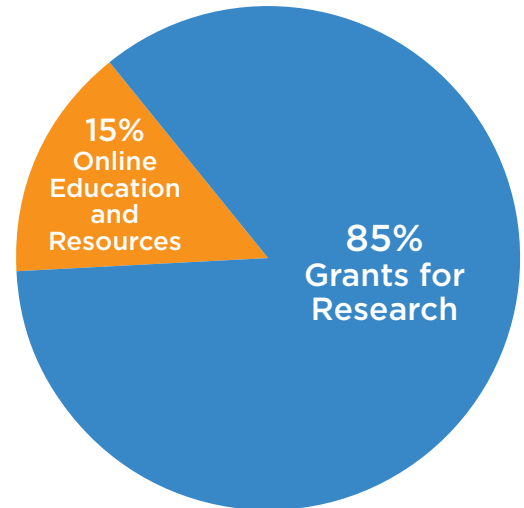
**Total Program Costs** \$ 355,151

### ADMINISTRATION

Management and Support Costs \$ 105,995

### TOTAL NET ASSETS

Total Net Assets as of Dec. 31, 2020 \$ 4,024,052



To view ARI's comprehensive financial statements, visit [Autism.org/donors](https://Autism.org/donors)

## Stewardship

It's important our donors trust that we're using our funding wisely to accomplish our mission of improving the health and well-being of people on the autism spectrum. We accomplish this by sponsoring autism research while educating professionals, those who are affected, and their families.



Dr. Bernard Rimland was a pioneer in the field of autism. He had a son with autism, and over 50 years ago rejected the prevailing theories and proved that autism was a neuro-developmental condition. He formed the Autism Research Institute to advance research, provide outreach to the autism community, and share the latest information regarding treatment and education in the field. Fortunately, ARI has continued and expanded on Dr. Rimland's mission in myriad ways. **Because of their many endeavors, ARI has educated and supported professionals as well as the autism community, and helped to create a better quality of life for so many individuals and families who have been touched by autism."**

Dr. Bernard Rimland with his son Mark.

— JUNE GRODEN, PhD  
The Groden Center  
Providence, Rhode Island

# Who We Are



AUTISM RESEARCH INSTITUTE  
*Autism is Treatable*



## 2020-2021 Board of Directors



Marvin Natowicz, MD, PhD  
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ARI is interested in funding fundamental and applied research that always has the impact on the ASD community in mind. It is this particular aspect that motivates me to serve on the Scientific Advisory Panel of the ARI.”

— JUERGEN HAHN, PhD

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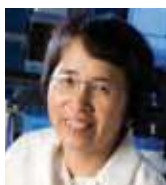
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Not pictured:  
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*Foundation for Autism Research*

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ARI has provided research and studies that align with our recovery journey – and Zane is proof of that! Information and resources from ARI has brought us to today, Zane’s first day of a real job. Had I known 10 years ago that today would happen, I would have been amazed!”

– SOMMER LAPITSKY  
Proud Parent  
Dallas, TX



ARI has been a part of our family, helping us to better understand my son’s autism and different methods of helping him. With the help of ARI, we will meet our goals!”

– JOYCELYNN  
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