



## March 2017 PARENT NEWSLETTER

From the Autism Spectrum Disorder Department at Easterseals Joliet Region

Visit our website or find us on Facebook

## What's Going On At Easterseals....

### **Grandparent & Extended Family Autism Workshop**

Are you a Grandparent, Aunt, Uncle or friend to a child with Autism? If so, you might have a lot of questions. On **Thursday April 20<sup>th</sup> from 5:30 – 7:30** Easterseals will be hosting a Grandparent and Extended Family Workshop, where Autism professionals will present basic information about Autism, give tips on how to support your loved ones and answer all of your questions. The cost is \$10 per family, paid at the workshop. Registration is required. To register or with questions, call Valerie at 815-927-5465.



### **Spring Session Social Skills Groups**

Children with Autism Spectrum Disorders and other social communication delays have difficulty developing social skills, and may benefit from a therapy group focusing on teaching and practicing specific skills with other kids their age. Groups are best for children who have made progress in individual therapy and are ready to start practicing those skills in a group setting with a 1:3 ratio. At each group parents receive a schedule of activities, a hand out discussing the skills that are targeted for that day and ideas on how to continue working on those skills at home. Groups are led by behavioral therapists from our outpatient treatment program. The groups are 8 week sessions and cost \$150 for the entire 8 weeks, due at registration. This service may also be billable through your insurance.

- **K-1<sup>st</sup> Grade:** Thursday from 4:00 5:00 pm starting March 9<sup>th</sup>, 2017 and ending Thursday April 27th, 2017
- 6<sup>th</sup> through 8<sup>th</sup> Grade: Wednesdays from 4:00 5:00 pm starting Wednesday March 8<sup>th</sup>, 2017 and ending Wednesday April 26<sup>th</sup>, 2017

Call Valerie Lentz at 815-927-5465 for more information or to register. Space is limited!

### Chat with a Therapist

Each month Easter Seals features a topic of interest on our <u>Facebook page</u>. This is a great opportunity for parents and community members to log on and get information, ask questions and connect with Easter Seals' staff and clients. The therapist is available for a scheduled hour where they will provide some basic information, but will mostly focus on answering questions. You can leave questions ahead



of time if you aren't able to log on during the scheduled chat session, or go back and read what was said after the chat session is over.

This month we are featuring one of the Occupational Therapists in recognition of Occupational Therapy Month which is coming up in April. Kristin Kappel will be presenting on "Meeting Sensory Needs in the Classroom" with a brief introduction to all of the different senses that OTs look at and a bunch of quick ideas on how to meet those sensory needs in an academic setting. She will be chatting on **Monday March 27<sup>th</sup> from 3:00 – 4:00.** Remember to log on and get your questions answered!

### Music Play Group (age birth to 5)

### Using music to promote social interaction, social imitation and language

Come join the fun! Researchers and parents everywhere agree that music has an amazing affect on development in young children. Music promotes language, social interaction, imitation, memory, cognition, movement and sensory regulation. It can be especially helpful for children with developmental delays that benefit from repetition and different teaching approaches. During our music play group we will tap into all of your different senses to promote learning, while also facilitating social emotional development. Group will be led by social workers from our outpatient and Early Intervention treatment program. They will choose songs that target specific skill areas, they will provide a variety of sensory and movement activities to complement the songs, they will facilitate parent-child and peer interactions to enhance social skills and will have weekly handouts with activities you can carry over at home. Children from birth to five years old of all ability levels are welcome in our group with their parent or caregiver. Siblings are welcome to attend as well, as long as they are in the birth to five age range. All songs and activities will be modeled and adapted for different ages and abilities.



Group meets every Friday from 9:30 – 10:30 a.m., starting on Friday February 10<sup>th</sup> through Friday April 28<sup>th</sup> (12 weeks) and the cost is \$10 per class per family. Attendance is not required at each class, families are welcome to come whenever it works in their schedule, but <u>you must be</u> registered to attend. Contact us today to register your child at 815-927-5465.

### **Parents Raising Children with ASDs**

Our parent support group continues to meet the **second Wednesday of every month from 6:00** – **7:30.** This program is a wonderful way to meet other parents, get information and get connected to resources in your community. This month we will meet on **Wednesday, March 8<sup>th</sup>** and as always, childcare will be provided for those who sign up ahead of time by Easter Seals staff. Both the group and childcare are free of charge. Please call Laura with any questions or to register for childcare at 815-927-5466.

### **Groupo de Apoyo Para Padres de Familias que Hablan Espanol** (Support Group for Spanish Speaking Parents)

This is a very well attended parent support group for families that have children with Autism and would like to meet other parents, get information and stay connected to community resources. The group is led by a social worker from our Autism Department and a translator from our parent education program. Group meets the first Friday of every month from 9:30 – 10:30 a.m. This month we will meet on Friday March 3<sup>rd</sup> and next month on Friday April 5<sup>th</sup>. This group is open to all parents, and children are welcome to attend with their parents. Please contact Blanca with questions at 815-927-5494.

### **Free Developmental Screenings**

Easterseals offers multiple ways for parents to complete a developmental screening for their child. Parents and caregivers can complete a free online screening tool on the Easterseals website which you can find here: <a href="http://www.easterseals.com/mtffc/">http://www.easterseals.com/mtffc/</a> If you would prefer for your child to be screened in person by an Easterseals' staff member, drop by to our Barney location on the second Friday of every month from 9:00 to noon, no appointment required! We will have several staff on hand to complete developmental screenings for children age birth to 5 years old, and Autism screenings for children age 18 months to 18 years old. They will be able to recommend to you whether your child is in need of a full evaluation, and explain how you can set up that process through either Easterseals or other community programs that are available. Contact Karrie if you have any questions about our screenings at 815-927-5471.

## **Autism Awareness Month**

April is Autism Awareness Month and every year Easterseals always offers additional programs and events to highlight this very important month. Awareness events provide an opportunity to bring attention to a cause. While individuals and families living with Autism would very accurately argue that Autism isn't a cause – it is just a part of their day to day life, the reality is that awareness attracts much needed resources and provides education to those that haven't been touched by Autism in their life. Over the past few years families have seen cuts to state and federal programs, delayed payment of funds that has caused a loss in service providers, and a very real lack of access to desperately needed services. Through awareness events we can shine a light on Autism to explain the need for resources, educate everyone about the amazing individuals affected by Autism and to provide support for the community of families, friends and helpers.

During awareness month we offer these events in addition to our regular programs:

- Annual Awareness Open House
- Grandparent and Extended Family Workshop
- Showing of Dr. Temple Grandin's DVD Training "Autism and Aspergers"
- Autism Awareness Items for Sale
- Free awareness stickers and pamphlets
- Additional community outreach and education through presentations and blogs

## **Annual Awareness Open House**

This year's open house will be on **Wednesday April 12th from 12:00 to 6:00.** This event is a super fun, interactive day for kids and families. We will host a variety of drop in groups including an obstacle course and rock climbing wall, a music play group, language activities with our speech pathologists, a parent-child craft station, a demo on how to make visual task strips, a demo of our summer soccer group and more! We will have a resource room with information on recreational activities, community resources and summer therapy groups. Free developmental and autism screenings will be available throughout the day. Plus refreshments, professional networking and fun giveaways to raise awareness for Autism Awareness Month and The Week of the Young Child. Call 815-927-5465 for more information. We hope to see everyone there!

We are still seeking community organizations and programs that would like to have table space in our resource room to provide information to families regarding summer camps, recreational opportunities and resources. Contact Jamie at 815-725-2194 x210 if you would like to drop off printed materials.

### **Autism Awareness Items for Sale**

Easterseals sells a variety of Autism Awareness items at cost to make them as affordable as possible for families, so you can proudly spread awareness and show support for your loved one with Autism. These items make great gifts for your family, for your child's teachers and therapists. We have coffee mugs, pins, bracelets, ornaments, car magnets, lanyards and more. Stop by our Family Center for Autism Resources, which also houses our free lending library, to browse our selection! Call 815-927-5465 for more information.



World Autism Awareness Day was first observed by the United Nations in 2007. On this anniversary, remember to wear blue to show your support for the many people around the world living with an Autism Spectrum Disorder. Visit <u>www.lightitupblue.org</u> to see famous landmarks and community events from around the world that are shining a light on Autism. Think of creative ways you can light it up blue – make cookies with blue icing for your co-workers, put blue lights on your front porch, wear an autism ribbon and be willing to share information with anyone who wants to know more!







### **Events Supporting Easterseals Joliet Region**

### Super Hero Run

GFWC Morris Women's Club is hosting a Half Marathon Run, 5K Run/Walk and 1K Walk to raise funds for Easterseals Joliet Region and other local charities. The run will be on **Saturday April 8<sup>th</sup>** with the start and finish at Grundy County Courthouse Lawn on Washington and Liberty Streets in Nostalgic Downtown Morris. The Half Marathon will start at 7am, 5K at 9am, with the 1 Mile immediately following the 5K start. Please go to their <u>website</u> for race details and to register online. You must register by March 14<sup>th</sup> to ensure receipt of a tshirt and medal participation; however registration will be accepted up until the morning of the race.



## **Portillo's for Good Fundraising Event**

On **Monday April 10<sup>th</sup> from 5:00 – 8:00** enjoy a family dinner at Portillo's in Shorewood to help raise money for Easterseals Joliet Region. Show <u>this flyer</u> at the Portillo's located at Brook Forest Ave in Shorewood (in front of Target on Rte 59) and they will donate 20% of the profits from your order directly to Easterseals Joliet Region.

### 41st Annual Corvette Show and GM Parts Swap

On **Sunday April 30<sup>th</sup> from 8:00 a.m. – 2:00 p.m**. Hawk Chevrolet of Joliet will be hosting their annual car show and will be donating all of the spectator entry fees to Easterseals Joliet Region! There will be cars to view, DJ, food and demonstrations. Guest entry fee is \$5 per person, with kids 12 and under being free. Follow <u>this link</u> to their flyer for more information.



# Easterseals Joliet Region Presents... Celebration of Giving Regional Telethon 2017

Saturday, April 8, 2017 11am - 9pm Jacob Henry Mansion (Victorian Ballroom), Joliet



Easterseals Regional Celebration of Giving Telethon will be held Saturday, April 8, 2017 from 11am - 9pm at the Jacob Henry Mansion, Joliet. The annual telethon celebrates success stories, introduces new Easterseals Representatives, showcases clients and their families, features local talent, and recognizes those donors and sponsors who have helped us so much. The event will be broadcast live at www.joliet.easterseals.com and on local access channels. This year our goal is to raise \$200,000 that will be used to provide services to children and adults with disabilities that we serve annually in the Kankakee and Joliet area.

Funds raised through the telethon make a difference to over 3,287 children, adults, and their families from 82 communities throughout the region.

Easterseals Joliet Region is changing the way the world defines and views disabilities by making profound, positive differences in peoples' lives every day. This happens because of you and others like you whose donations give people with disabilities access to the support they need to participate fully in their lives and to have their dreams, hopes, successes, and achievements realized.

Download Sponsorship Form.

## What's Going On In Your Community...

### **Workshops & Resource Fairs Autism and Related Disorders Course FREE**

Yale University has a seminar on Autism and Related Disorders on iTunes FREE to listen to. The course covers diagnosis and assessment, etiology and treatment of children, adolescents and adults with autism and related disorders of socialization. Don't have time to take a course on Autism? Listen to lectures on your daily commute or while getting ready! Once again, these are FREE to download on iTunes! For more information, go to <a href="https://itunes.apple.com/us/course/autism-and-related-disorders/id495056283?enlh=7&mt=10&ls=1">https://itunes.apple.com/us/course/autism-and-related-disorders/id495056283?enlh=7&mt=10&ls=1</a>

### **Assistive Technology Grant for Children from Will-Grundy Center for Independent Living**

The Will-Grundy Center for Independent Living has grants available to help purchase an assistive technology device for children (up to age 23) with disabilities, up to \$500. A letter is required from a medical physician, or a physical, occupational, or speech therapist that explains how the device will benefit the child. The parent or guardian needs to volunteer five hours OR give a donation or \$50 to help support the Assistive Technology for Children Program. The volunteer hours or donation will need to be completed before the device is ordered. Devices are limited to one per family. For more information, contact Debbie Tarrant at (815) 729-0162, or email her at debbie@wgcil.org. You can also contact Missy, Program Director at missy@wgcil.org.

### NAMI "You Are Not Alone" Course

If you have ever wondered what NAMI is or what programs they offer, you are invited to attend a free class at Joliet Junior College in Morris. The You Are Not Alone (LLC 5112) course will take place on **March 6<sup>th</sup> at 7:00pm-8:30pm** at JJC Morris Campus (Shabbona Middle School), 725 School St., Door 27, Morris, IL. NAMI Will Grundy offers, at no charge, education programs and support groups in our mission to "support individuals with mental illness and their families through advocacy, education and outreach." This NAMI Will Grundy program will provide you with a description of the NAMI Will Grundy educational programs and support groups. With peer support and testimonials we can help you to select the support services best suited to you as an individual diagnosed with a mental illness or a family member of an individual diagnosed with a mental illness, because RECOVERY HAPPENS. Preregistration is recommended but not required. Register by calling (815) 280-1555 - Course LLC 5112. Visit the NAMI website here for more information www.namiwillgrundy.org

### "No One Can Stop Me" Abilities Expo

On **Saturday April 22nd** the Plainfield Township Abilities Committee will host its 7<sup>th</sup> Annual Abilities Expo at Plainfield Central High School. This expo takes place **from 10am-2pm**, will have over 60 exhibitors and service providers, demonstrations, sensory story time, food for sale and more! The event is FREE and open to the public. If you have any questions you can contact Marie Adams at <u>marie-adams@mckesson.com</u> or 815-577-8380.

### <u>Therapy Resources</u> Art Therapy Workshops for People with Autism

The Merchant Street Art Gallery in Kankakee is hosting a monthly art therapy workshop for individuals with Autism and other needs. The workshops will be conducted by an art therapist who will support the individuals in helping their ideas come to life, with a focus on social interaction, sensory integration, emotional regulation and self expression. Volunteers will be on hand to provide additional support. Workshops are the second Saturday of each month starting in March going through June with 6 to 12 year olds from 11:30 - 12:30 and 13 years old and up being from 1:00 - 2:30. The cost is \$20 for all four sessions. Call 815-214-9135 with questions or to register.

### <u>Recreational & Social Opportunities</u> Miracle League Baseball in Joliet



Because every child deserves to play baseball. The Miracle League of Joliet's mission is to provide opportunities for children and young adults from 4 to 19 to play and experience the joys and benefits of baseball. During games with the Miracle League, each player bats one inning, all base runners are safe, every player scores a run before the inning is

each player bats one inning, all base runners are safe, every player scores a run before the inning is over, community children and volunteers serve as "buddies" to assist the players, and each team and each player wins every game. Games are played every Saturday for 6 weeks at the Miracle League Field (120 E. Clinton, Joliet) on a full-sized playing field with a custom-designed, cushioned, rubberized, and completely flat surface with painted baselines and bases so it if free from any obstacles that accommodates assistive devices while helping to prevent injuries. Registration is open now through April 1<sup>st</sup> and can be done online. Opening day is Saturday, May 13<sup>th</sup>! Registration, more details, and further information can be found at <u>http://miracleleagueofjoliet.com/</u> or contact Sharon at <u>sferro@miracleleagueofjoliet.com</u> or 815 258-3799.

# Adaptive Dance and Family Get Down - Play For All at Chicago's Children Museum

On **Saturday March 11th at 9:00am**, the Chicago Children's Museum will open and host Play For All: For Families with Children with Disabilities. This March, come and dance with us! We invite students, siblings, parents and caregivers to take part in this adaptive dance opportunity. Students are invited to sing, clap and use movement to explore their physicality in space through directive songs, story time and solo and partner activities. Using creative movement and imaginative play, all will feel welcome as we take part in the joy of movement and creative expression! This event is a great opportunity to both experience the Chicago Children's Museum and learn more about adaptive sports! The first 250 visitors to register receive FREE admission. Pre-registration is required. For more information and to register, go to <a href="https://www.eventbrite.com/e/march-2017-play-for-all-adaptive-dance-family-get-down-with-design-dance-tickets-31766557629?aff=erelpanelorg">https://www.eventbrite.com/e/march-2017-play-for-all-adaptive-dance-family-get-down-with-design-dance-tickets-31766557629?aff=erelpanelorg</a>

## **Spring Formal**

The Special Recreation of Joliet/Channahon is hosting their annual Spring Formal for kids 13+. The cost is \$35 for residents and \$44 for non-residents. The cost includes dinner, photo, and a corsage. The event takes place on May 12<sup>th</sup> but registration closes April 7<sup>th</sup>. To register for this event, please go to https://bluerec3.bluerec.com/php/programinfo.php?org=joliet&item=244184

## **Recurring Monthly Events**

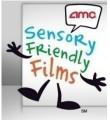
These events are going on every month out in your community. Please contact them directly for more information!

## **Exploration Station Special Needs Nights**

Exploration Station is a wonderful children's museum in Bourbonnais. They host a special needs night on the **First Sunday of every month from 11am-12:30pm**. The staff at Exploration Station has taken special care to adapt the environment and provide an opportunity for children with special needs to explore their exhibits so they can learn through hands on interaction. The museum is only open to families with special needs children during this time, which provides a safe and accepting environment. The fee is \$2.50 for residents and \$3.50 for non-residents. Exploration Station is located at Perry Farm Park on 459 N Kennedy Drive in Bourbonnais. Pre-registration is required. Call 815-933-9905 ext. 3 for more information or visit them online at <u>www.exploration-station.org</u>.

## **Sensory Friendly Films at AMC**

AMC has EXPANDED their Sensory Friendly Film program to include some evening hours with films geared towards an older crowd! The auditoriums dedicated to the program have their lights up, the sound turned down and audience members are invited to get up and dance, walk, shout or sing! They will now be on the **second and fourth Tuesday at 7pm AND second and fourth Saturday at 10 am every month.** Go to



http://www.amctheatres.com/programs/sensory-friendly-films for more information and to find a nearby theater that is participating in this great program!

### **DuPage Children's Museum Special Needs Nights**

Did you know that the DuPage Children's Museum has a dedicated night for families of children with special needs? They do! It is the **third Thursday of every month from 5pm-7pm**. It is a time designated for the families of children with special needs to enjoy the museum in an inclusive, typically quieter, less crowded atmosphere. They have a creativity drop-in studio that implements sensory-based activities with a different theme every week along with purposeful play with peers, adaptive equipment, and guides to help parents use the exhibits for therapeutic benefit. Admission is \$11 per person, ages 1-59, and \$10 for anyone over 60. For more information go to their website at http://dupagechildrens.org/

### **Sensory Story Times**

The Plainfield Public Library is hosting a **FREE** drop-in Sensory Story time one Saturday every month. After free play, socializing, and tactile activities, gather for a story time designed for children of all abilities. Friends and siblings are welcome. Children ages 3 to 9 must be accompanied by an adult. Drop in event, no registration is required. Find dates/time and more information at <a href="http://il.evanced.info/plainfield/evanced/eventcalendar.asp">http://il.evanced.info/plainfield/evanced/eventcalendar.asp</a>

Fountaindale Public Library (in Bolingbrook on Briarcliff) offers a **FREE** drop-in Sensory Story time on the second Saturday of every month from 10:30 to 11:15 for children from 2 to 6 years old with a caregiver. This story time is geared "especially for children with sensory integration issues". Visit their calendar at <u>http://host7.evanced.info/fountaindale/evanced/eventcalendar.asp</u>

### **ASD Life Transition Group**

Alexian Brothers Health System presents the ASD Life Transitions Group. This **FREE** group will be held on the 4th Tuesday (Tuesday, February 28<sup>th</sup>) of every month from 7pm until 9pm at the Alexian Brothers Women and Children's Hospital, in the Lower Level meeting rooms 3 & 4 (1555 Barrington Road, Hoffman Estates). Each month they invite a different speaker to present to the group and address a variety of issues specific to this population, including college transition and accommodations, job skills, independent living, volunteer opportunities, government benefits, driving, exercise and more topics of interest. Additionally, our young adults will break out for the second hour where they will be able to enjoy game nights, time to socialize, and more! This group is for young adults 16 and up and parents. To register please email Ana.Garcia-Maldonado@alexian.net or call 847-755-8536.

### **Art Happenings Workshops**

The Merchant Street Art Gallery in Kankakee offers a monthly FREE workshop for families that have a member with Autism. It is the fourth Tuesday of every month from 4:30 - 6:00. The workshops offer families the opportunity to explore the visual arts in a casual atmosphere while meeting and getting to know other families. You can call the art gallery at 815-685-9057 or visit their website for more information at <u>www.merchantstreetartgallery.org</u>

### NAMI of Will-Grundy: Family Support Group

NAMI (National Alliance for Mental Illness) Family Support Group is a peer-led support group for family members, caregivers and loved ones of individuals living with mental illness. Families can gain insight from the challenges and successes of others facing similar circumstances. NAMI's Support Groups are unique because they follow a structured model, ensuring everyone has an opportunity to be heard and to get what they need. NAMI Will-Grundy offers a variety of locations and times for these free support groups. For more information visit <u>http://namiwillgrundy.org/familysupport/</u> or contact NAMI Will-Grundy at (815) 731-9103 (call returned within 48 hours) or email <u>info@namiwillgrundy.org</u>.

Do you have an event coming up that would be of interest to families that have children with special needs? We help to spread the word about events that are reasonably priced and promote awareness, inclusion, learning opportunities and fun for the special needs community! Please submit your events to <u>vlentz@joliet.easterseals.com</u> to be considered for our next newsletter

## Articles of the Month

### No MMR-Autism Link in Large Study of Vaccinated vs. Unvaccinated Kids

Study of over 95,000 children included 15,000 unvaccinated 2 to 5 year olds and nearly 2,000 kids already considered at high risk for autism April 20, 2015

In the largest-ever study of its kind, researchers again found that the measles-mumps-rubella (MMR) vaccine did not increase risk for autism spectrum disorder (ASD). This proved true even among children already considered at high risk for the disorder.

In all, the researchers analyzed the health records of 95,727 children, including more than 15,000 children unvaccinated at age 2 and more than 8,000 still unvaccinated at age 5. Nearly 2,000 of these children were considered at risk for autism because they were born into families that already had a child with the disorder.

<u>The report</u> appears today in *JAMA*, the Journal of the American Medical Association.

"Consistent with studies in other populations, we observed no association between MMR vaccination and increased ASD risk," the authors write. "We also found *no* evidence that receipt of either one or two doses of MMR vaccination was associated with an increased risk of ASD among children who had older siblings with ASD."

The analysis looked at autism rates and MMR vaccination at ages 2, 3, 4 and 5 years. It showed no increased risk of autism with immunization at any age. In fact, autism rates were lower in the vaccinated groups. However, this might be because parents who see early signs of autism were more likely to delay or avoid vaccination, the authors speculate.

### Lower vaccination rates among families affected by autism

Some 15 year ago, a small, now-discredited study sparked concerns about a link between the MMR vaccine and autism. Since then, a large and growing body of research has continued to find no association. Still, the continuing uncertainty around what does cause autism has left some people worried. Such concerns likely explain why vaccination rates have dropped in families that have an older child with the disorder.

In the new study, MMR vaccination rates for children without an affected older siblings were 84 percent at 2 years and 92 percent by age 5 years. Vaccination rates for children with an older sibling affected by autism were significantly lower: 73 percent at 2 years and 86 percent at age 5 years.

In an <u>accompanying editorial</u>, Dr. Bryan King, director of the Seattle Children's Autism Center, writes:

"Taken together, some dozen studies have now shown that the age of onset of ASD does not differ between vaccinated and unvaccinated children, the severity or course of ASD does not differ between vaccinated and unvaccinated children, and now the risk of ASD recurrence in families does not differ between vaccinated and unvaccinated children."

#### Study made possible by large database

The investigators performed their analysis using the claims records from a large US health plan database (the Optum Research Database). Participants included children continuously enrolled in an associated health plan from birth to at least 5 years of age between 2001 and 2012. All had an older sibling.

Of the 95,727 children in the study, around 1 percent (994) were diagnosed with autism during the study's follow-up period. Among those who had an older sibling with autism (1,929), approximately 7 percent (134) developed the disorder. This difference in autism prevalence – between children with or without an older sibling affected by autism – is consistent with earlier studies.



Watch a JAMA video report on the study here.

# Autism and social skills: The complicated role of special interests

*This Autism Speaks research fellow is studying how restricted interests compete with social learning in autism – with the goal of improving interventions and supports* 





By <u>Kathryn Unruh</u>, of Vanderbilt University, a member of the <u>2015 class of</u> <u>Autism Speaks Weatherstone Predoctoral Fellows</u>. Her fellowship supports her study of visual attention, special interests and motivations in toddlers affected by autism. The goal of this research is to guide the development of personalized early interventions that improve social learning and development. She is pursuing this work at Vanderbilt University under the

guidance of developmental psychologist James Bodfish, an expert on severe and treatment-resistant forms of autism.

From the first moment of life, experiences shape brain development. A child's brain development, in turn, shapes his or her social behaviors. <u>Research shows</u>, for example, that most newborn babies like to look at human faces more than anything else. At the same time, their brains tend to <u>respond strongly to</u>

the sound of language. These preferences shape our brain development and behavior. They likewise influence how we learn to understand and communicate with each other.

A large and growing <u>body of research</u> also suggests that, early in life, the interests and brain responses of children with autism tend to differ from these typical patterns.



### **Developing tailored therapies and supports**

The author presents early findings from her Autism

Speaks Weatherstone fellowship research project. To develop more effective therapies and supports for people on the spectrum, we need to understand how these differences first appear and when and how they grow.

One widely accepted line of thought is the <u>social motivation theory of autism</u>. It proposes that – even though the symptoms of autism appear around age 2 – most children who will develop the disorder already have decreased interest in social information as babies and toddlers. By social information, we mean facial expressions, voices and other social cues that prove so attention grabbing to most children.

This lack of social interest and engagement, the theory holds, hampers the development of the brain pathways needed to further strengthen interest in people and their faces and voices. These interests, in turn, are crucial to developing social and communication skills including language.

### **Understanding restricted interests**

In my research, I take the social motivation theory of autism a step further by asking:

If young children with autism aren't motivated to seek out social experiences, then what are they motivated to do?

This question brings us to the repetitive behaviors and restricted interests that are a core aspect of autism. Classic examples include a baby watching a spinning ceiling fan instead of focusing on his mother as she leans over the crib to coo at him. Another familiar example is the toddler who lines up his toys instead of playing with them in typical ways. Among verbal children and adults on the spectrum, restricted interests can lead to missing social cues and inappropriately dominating a conversation with a narrow topic of interest.



By pairing faces with objects of higher or lower interest to a study participant, we can get a glimpse of whether and how special interests interfere with attention to social cues.

Along these lines, my research also asks:

\* Do children with autism engage in nonsocial behaviors because they have *no interest* in the social cues and information around them?

\* Or is the social information around them simply not as engaging as their nonsocial interests?

By focusing on these questions, my research aims to deepen our understanding of autism in ways that can help us better address the challenges these children face as they learn to interact with people and the world around them.

### Engaging or competing interests?

For example, many behavioral interventions for autism use children's restricted interests to keep them engaged. For instance, if a child has a passion for trains, the behavioral therapist might build her therapy sessions around activities with toy trains and/or videos of trains.

One idea I'm evaluating is that this tactic may actually *interfere* with the goal of developing the child's social attention and skills. In other words, it might be like asking a child to complete a challenging homework assignment with his or her favorite television show blaring in the same room.

### **Insights from brain activity**

In <u>previous research</u> in Dr. Bodfish's lab, our team looked at how the so-called "reward centers" of the brain respond to a monetary reward versus a picture related to a special interest (e.g. trains, electronics) in people who had autism. For comparison, we also looked at the brain responses of people who didn't have autism.

As you might expect, the brains of the people who did *not* have autism responded strongly to the monetary reward, but not so much to the pictures of objects. The exact opposite was true of the people who had autism. The reward centers in their brains lit up in response to the pictures of objects of interest – but showed less-than-expected response to monetary rewards.

This certainly suggests restricted interests have a significant effect on brain activity – and may decrease brain responses to other information.

In another study, our team used an infrared camera to track what participants were looking at, and for how long, when shown pictures on a computer screen. Compared to typically developing children, those who had autism spent significantly more time looking and exploring pictures of objects versus pictures of faces.

Together, these findings suggest that the extreme nature of restricted interests in autism can play a large role in the condition's hallmark difficulties with social skills. My Weatherstone project further explores this challenge in ways that I hope will inform and improve autism therapies – especially early interventions.

### From insights to improvements in early intervention

One of my aims is to increase understanding of *how much* different types of information compete with social cues in someone who has autism – and under what circumstances.

By way of example, imagine you're hungry and I show you a photo of a cheeseburger next to a picture of a puppy. You can imagine which picture will grab your attention.

So I pair different pictures together to measure how one image influences a child's interest in another image. I might pair a picture of a vehicle or a piece of electronic equipment with a picture of a face. (See paired images above left.) Then I might pair a picture of a face with a picture of something that we previously determined is less interesting to the child – say, a teapot or shoe. (See paired images above right.) This enables me to gauge how high-interest versus low-interest objects affect the child's tendency to focus on social information.

We may find that some children are highly distracted by certain types of nonsocial information and others are not. Time is of the essence when determining which therapy is right for a child, and this may help better understand why some children respond to certain therapies better than others.

### The eyes yield further clues

In addition to eye-tracking, I use a method called pupillometry to measure how the pupil of the eye expands or contracts as the child focuses on pictures and their details. Though we commonly think of our pupils responding to dark and light, pupils also expand and contract in response to our interest in the subject of our attention. In particular, I'm studying whether children who have autism show a different pupil response to objects than to faces.

These differences, I hope, can deepen our understanding of how a child is processing social versus nonsocial information.

For example, if eye tracking shows that a child with autism spends *more* time looking at certain images, I can then look at his or her pupil response. A pattern of extended looking paired with a larger, longer pupillary response may suggest that the child is experiencing pleasure looking at the image and thinking about what it represents.

By contrast, a smaller pupil response may suggest that the longer looking time was more about examining physical details of the image such as color or contrast.

To put it all together, the goal of my research is to show *how* and *why* nonsocial information can affect – and potentially interfere – with social attention.

The findings might even lead to earlier intervention. We know, for example, that some of the most obvious differences in social behavior don't typically emerge until around 2 years old in children who have autism. Distinctive nonsocial interests, however, might emerge earlier and could help us identify children who would benefit from personalized intervention at a younger age.

### Including the nonverbal and intellectually disabled

One of the most important aspects of my research, I believe, is that I'm developing testing methods that place minimal demands on children's language and thinking skills. This means that we can involve nonverbal kids and kids with intellectual disability in our studies. Both of these groups have long been under-represented in autism research and are in great need of more-effective therapies.

In conclusion, I'm pleased to report that my Weatherstone fellowship is supporting the development of new ways to explore some potentially important but understudied aspects of autism. In doing so, we hope it will deepen our understanding of the experiences that shape brain and behavior development and help us design interventions that help these children "get back on track" in ways that foster learning and their ability to function in a socially demanding world.

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Learn more about Autism Speaks Weatherstone fellows and their career-launching research projects <u>here</u>.