2015 will mark 20 years since CARD was founded! In honor of our 20th birthday, we are asking for gifts of $20. To donate, you can:

- Visit helpkids.kennedykrieger.org, click on the Donate Now button, and specify “CARD” in the Fund Designation field
- Send a check payable to “Kennedy Krieger Foundation—CARD” to Kennedy Krieger Institute, 707 North Broadway, Baltimore, MD 21205, Attn: Office of Development

With your help, we hope to raise $200,000 so that we can continue advancing the autism spectrum disorder (ASD) field!

History of CARD

CARD was founded in 1995 by Dr. Rebecca Landa. In the beginning, it was housed in only a few rooms at Kennedy Krieger Institute’s Fairmount location. In 2002, CARD moved to its current location on Greenspring Avenue. CARD previously shared the building with another department, but has since expanded to the entire building. In November 2014, CARD opened another location in Odenton.

CARD’s staff, pictured below, has also dramatically increased over the years. We started out with one full-time and a couple of part-time employees. Now, we have more than 130 full-time employees. We feel privileged to still have on board many employees who have been involved in CARD since its inception, and who have helped to shape the next generation of doctors, researchers, and clinicians in the field of ASD.

Number of patients seen at CARD in 2013: 2,752
Number of patients seen at CARD in 2014 to date: 2,902
In Honor of Our 20th Anniversary, We Are Celebrating Our Top 20 Accomplishments from the Past Year!

1 Our New Location in Odenton

We are excited to announce the opening of our new location in Odenton, Maryland! The building, located at 1130 Annapolis Road, houses three Achievements classrooms in addition to other clinical programs such as social work, speech-language, and occupational therapy for evaluations and treatment. Additionally, we have a research space for early detection, for our study of infant-toddler learning, and for assessments of infants siblings of children with ASD. The Achievements program serves children from two to six years of age in both Early Achievements and Achievements groups, while the clinical programs are designed for children up to 10 years of age. The Odenton location is a more convenient option for families traveling from Fort Meade or areas closer to Washington, D.C. The new location also enables us to decrease our wait times and see more families. Several of our staff from the Greenspring location have moved to Odenton, so you should see some familiar faces at the new center. We look forward to continued growth in the upcoming year; please stop by to check out this beautiful new space!

2 MICC Classroom

The Model Inclusion Childcare Classroom (MICC) is a unique childcare program for typically developing preschoolers who are three to five years old. The MICC program provides a play-based curriculum that emphasizes communication, social development, and early academic and literacy skills, with a low staff-to-student ratio that allows us to meet the needs of each child. The children, pictured below, spend part of their day serving as peer models in our Achievements groups for preschoolers with ASD. There, they model age-appropriate play and social and communication skills while engaging in fun activities and fostering an environment of acceptance and shared enjoyment.

3 Care Navigator

CARD has partnered with the Aetna Clinical Innovations Lab to conduct a research project focused on providing free clinical services navigation (CSN) program to families coming to the CARD clinic for evaluation. CSN refers to information provided to families to increase overall patient satisfaction and understanding. This can include explaining information regarding the child’s diagnosis, assisting parents in understanding medical and treatment referrals made by the clinicians, and providing access to information about relevant community resources. The goal of the research project is to assess the impact of this program on patient satisfaction, healthcare service utilization, and the overall health and well-being of the patient with ASD.

A secondary goal is to make families aware of the increased risk of ASD and related disorders in younger siblings of children with ASD. Families participating in the CSN program who have a child with ASD and a younger child who is under three years old are provided with information about general child development as well as the younger sibling’s increased risk of ASD and related disorders, and are also offered options for obtaining a free developmental evaluation for the younger sibling at CARD.

To date, the research study has recruited over 40 families into the CSN program and will continue to recruit participants through Summer 2015.
4 International Talks

We are honored that our director, Dr. Rebecca Landa, has been invited to other countries to speak about ASD. Most recently, Dr. Landa visited France and was a keynote speaker at the Toulouse Conference, part of a program run by the European Cooperation in Science and Technology’s (COST) Enhancing the Scientific Study of Early Autism (ESSEA) initiative. Her talk was titled “The Emergence of the Autism Phenotype in the First Three Years of Life and Treatment Implications.” While in France, Dr. Landa also spoke to the Association for Autism Research and Prevention of Maladjustment (ARAPI) at their 10th Annual Regional Information Day, titled “Signs of Autism and Communication Delays in Infants and Toddlers, Implications for Early Intervention.”

5 International Patients and Visitors

As in past years, CARD clinicians provided evaluations and recommendations for individuals from all over the world. Some of the international families have been able to remain in Baltimore to receive intervention services from CARD experts. We have seen more than 30 international families from the following countries this year:

- Bermuda
- Burma
- China
- Egypt
- France
- Jordan
- Kuwait
- Morocco
- Nigeria
- Paraguay
- Philippines
- Qatar
- Saudi Arabia
- United Arab Emirates

In 2014, we also welcomed visitors from Taiwan, Japan, Ethiopia, Egypt, and China who are hoping to fashion their new autism programs after the model established at CARD. Most recently, a group from the Firefly Children’s Network and the Naked Heart Foundation [pictured above with CARD staff] came from Russia to tour our facilities and learn about our therapeutic activities.

6 Video Tutorial

To improve recognition of the early signs of ASD among pediatricians, parents, and early intervention providers, CARD’s Dr. Rebecca Landa has developed a free nine-minute video tutorial on ASD behavioral signs in one-year-olds. The tutorial consists of six video clips comparing toddlers who show no signs of ASD risk to toddlers who show early signs of ASD. Each video is presented with voice-over explaining how the specific behaviors exhibited by the child on screen are either indicative of ASD or non-ASD child development.

The video, titled “Bringing the early signs of autism spectrum disorders into focus,” has been viewed over 292,000 times on YouTube and translated into Spanish (http://www.infoautismo.es). We hope to translate it into additional languages so that this important information can reach even more people.
Collaborations

CARD is honored to be involved in a number of collaborative projects, including:

**Baltimore Infants and Toddlers Program (BITP):** CARD psychologist Dr. Kelly Sheperd provides developmental assessments for children in BITP who are showing signs of risk for ASD, developmental delays, and other concerns. Families who receive an ASD diagnosis are counseled on how to locate services at BITP, CARD, and other agencies.

**Baby Sibling Research Consortium (BSRC):** The BSRC is a collaboration between research teams from the United States, Canada, Israel, and the United Kingdom. Scientists from these countries, funded by a variety of sources, donate de-identified data about developmental scores for infants at low and high risk for ASD to a secure centralized database funded by Autism Speaks. More than 2,500 children have participated in this research, providing leading researchers with valuable data to advance the field of autism research.

**National Database for Autism Research (NDAR):** CARD submits de-identified data obtained through federally-funded studies to NDAR, a secure database that promotes large-scale data analysis. Autism investigators have access to data from over 90,000 participants that could lead to groundbreaking discoveries about ASDs.

**The Study to Explore Early Development (SEED):** The multi-site study, funded by the Centers for Disease Control (CDC), identifies risk factors associated with causes of ASDs and other developmental disabilities.

**The Autism and Developmental Disabilities Monitoring (ADDM) Network:** This multi-site project, funded by the CDC, estimates the number of children in the United States who have an ASD or other developmental disabilities.

Discoveries through Research

CARD staff continue to publish papers about a variety of topics related to ASDs. CARD also measured predictors of outcomes of younger siblings of children with ASD and early head growth in infants at risk for autism and effectiveness of various treatments for ASD. Some of our recent papers are:

- “Association between severity of behavioral phenotype and comorbid attention deficit hyperactivity disorder symptoms in children with autism spectrum disorders” in *Autism*
- “A systematic review of treatments for anxiety in youth with autism spectrum disorders” in *JADD*
- “Scaffolded reaching experiences encourage grasping activity in infants at high risk for autism” in *Frontiers in Psychology: Developmental Psychology*
- “Limited fine motor and grasping skills in 6-month-old infants at high risk for autism” in *Child Development*

Bringing Our Lab-based Research into the Community

Many of you are familiar with our Early Achievements study, in which we examined the effectiveness of a treatment to improve social skills and understanding in 2- and 3-year-olds with ASD. Thanks to our success with that study, we have expanded our research into the Baltimore community. CARD has partnered with Baltimore County Public Schools to develop an intervention that can be used by teachers to teach social and communication skills to preschoolers with ASD. We are currently in our third year of the study, and are collaborating with 15 classrooms in seven schools. We are also working with the Baltimore County Infants and Toddlers program to assess a similar intervention to be used by their in-home providers.
Every October, CARD hosts a two-day autism conference that provides information on a variety of topics to families affected by an ASD, individuals with ASDs, and professionals interested in ASD. The conference features keynote speakers and breakout sessions that allow attendees to customize their conference experience by choosing the topics most pertinent to their needs. This educational conference includes inspiring speeches by experts in the field of autism from around the world. Topics vary each year, and have included such issues as transitioning to adulthood, implementing evidence-based intervention in the community, and ADHD in children with ASD.

Since its inception in 2000, our conference has grown and evolved to provide attendees with a more comprehensive and unique experience. There were over 300 attendees at this past year’s 14th annual conference, and we anticipate that the number will continue to grow in the coming years.

Community-based Partnerships

CARD is thrilled to support community groups' autism-related programs and efforts:

**Port Discovery**: At Port Discovery Children’s Museum, CARD researchers give presentations on select Wednesdays as part of the “Talking About Tots” series. They provide parents of children under three with information about the latest research, offer advice on how to enhance their children's play and learning, and provide strategies for managing issues such as sleeping difficulties.

**National Aquarium in Baltimore**: CARD is honored to be one of the agencies serving members of our community with special needs who attend the Aquarium’s AccessAquarium event. The evening includes free admission, tours of the Aquarium with experienced exhibit guides, conversations with divers, animal interactions, and more.

**Walters Art Museum**: The Walters Art Museum hosts Sensory Morning programs for children with special needs. CARD families may enjoy this free event specially designed to help children make connections with art.

**aMuse Toys**: This family-owned toy store based in Baltimore has graciously donated toys designed for children with special needs. CARD staff also plan to give talks about development at aMuse Toys starting in 2015

**Honestly Autism Day**: This conference, organized by the Baltimore Autism Society, is held annually in April. CARD encourages everyone to attend this inspiring conference featuring keynote speakers, breakout sessions, and talks from individuals with autism.

**Pathfinders for Autism**: A nonprofit organization founded by parents of children with autism, Pathfinders for Autism advocates for individuals with ASD and increases the awareness of this disorder. Pathfinders now has a representative at CARD to assist our families one day a week.

**Autism Speaks**: Autism Speaks works to promote awareness of ASDs and encourage advocacy. CARD supports their fundraising and outreach efforts. For example a number of our staff recently attended their annual event, Walk Now for Autism Speaks.
Social Skills Groups

Social skills groups are a common therapeutic modality that helps individuals with ASDs develop effective social interaction skills. Groups consist of instruction and practice of targeted social skills, and may feature strategies including video modeling, role-play, social coaching, parent training, and skill practice (i.e., homework). Groups are often led by an interdisciplinary team of speech and language pathologists, occupational therapists, social workers, and psychologists, allowing for more comprehensive treatment of social needs.

CARD offers a variety of groups, based on the child’s age, language level, and needs. In SSTEP (Social Skills Through Exercise and Play), children ages 8-10 years old engage in movement-based activities to improve gross motor development, problem solving, frustration tolerance, cooperation, self-regulation, and overall social/emotional skills. Another group, START (Skills to Attend and Relate Together), focuses on improving social skills and self-regulation, with an emphasis on advocacy and community safety, for children ages 11 to 14. Please visit our website for more information and a complete list of our social skills groups. If you are interested in having your child participate, please contact CARD at 443-923-7630.

Parent Training

CARD offers parent training programs to support the parents of children who have ASDs or other related developmental delays. Clinicians at CARD know that intervention focused on the whole family, not just the child, maximizes progress. Therefore, clinicians across all disciplines partner with parents and caregivers so they can learn strategies to continue at home.

The clinic has several short-term interventions that provide hands-on coaching to parents. Achievements for Little Learners is one of our programs for toddlers that allows parents to participate in group therapy with other families. Parents are encouraged to carry over the strategies at home. We plan to expand this parent training series to benefit more families.

All across CARD, you can find interventionists partnering with parents to teach them evidence-based strategies geared toward enhancing their child's development and well-being.

Transition Services

For parents of young adults diagnosed with an ASD, the transition from childhood to adulthood is often met with uncertainty regarding the best path for their child. By the age of 12 to 14, parents, schools, and community providers and agencies should begin working together to create and implement a successful transition to adult services. CARD is in the process of creating a specialized transition team. As part of this effort, transition-age youth would have updated evaluations across our various disciplines to help providers create individualized plans to assist their families and them with the transition to appropriate adult services. Sara Uram, LCSW-C, is also working on developing a short-term transition program to assist families with psychoeducation and support during this process.

Augmentative and Alternative Communication (AAC) Services

CARD provides services for children who have augmentative and alternative communication (AAC) needs. These children are not able to verbally express their thoughts and desires effectively and require the use of additional supports (e.g., picture boards or electronic devices) to enhance their functional communication. CARD has a team of five specialists who provide evaluation and treatment in the clinic and consult with other staff members on ways to support all children with AAC needs in our clinical programs. In the first 10 months of 2014, CARD has already evaluated 30 children for AAC needs and treated 42 children using AAC.
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ROAR!

ROAR for Autism is CARD’s annual event that encourages participants to break the silence surrounding autism by raising funds for autism research and treatment programs at Kennedy Krieger Institute. Held in April in honor of Autism Awareness Month, ROAR will take place on Sunday, April 26 at Oregon Ridge Park in Cockeysville. The event consists of a bike ride, a 5K, a low-mileage family walk, and a fun festival for the whole family. The proceeds enable us to make major advances in understanding the causes of autism, as well as in developing methods for earlier detection and establishing more effective treatments for ASDs. Be on the lookout for more information about this fun event!

Medical Informatics

CARD employs the science of informatics technology to help our patients provide our doctors with information about their child. Parents can now go online and complete forms that provide information to our clinicians prior to the family's visit to CARD. After the child is evaluated, information can be linked to help doctors identify patterns in the child's symptoms and medical history so that recommendations may be tailored to the children's and families' needs. The information provided by families and clinicians make efficient use of their time. Families may indicate on the online form whether they consent for their child's information to be de-identified and used for research. The research that is done with these data help CARD experts to quickly learn more about causes of autism, services sought by families, the types of new experts and services needed at CARD, and so forth. When families consent to allow their child's de-identified information to be used for research purposes, answers to important questions related to improving outcomes for individuals with ASD and their families may be obtained at an unprecedented pace while protecting the families’ privacy.

Web-based survey technology allows parents to complete forms at their own convenience, in more than one sitting, and even on different devices. At the beginning of 2014, we added the ASD Video Guided Parent Report (VGPR) to the CARD intake form. One goal of the VGPR is to enable parents to have a more in-depth conversation about their child’s development during their visit. Additionally, when families give consent, we use the data from the VGPR to not only make the tool itself better, but also improve ASD screening options.

Telemedicine

Telemedicine, the electronic exchange of medical information between healthcare providers and patients, helps improve access to healthcare and communication between providers and patients. CARD has a telemedicine suite run by a CARD neurodevelopmental physician, Dr. Deepa Menon. Dr. Menon provides two-way secure live video evaluations with patients at Atlantic General Hospital. Patients ages 2 to 21 with concerns about ASDs, learning issues, ADHD, communication problems, intellectual disability, speech and language issues, and other developmental issues have been evaluated.

CARD’s telemedicine services have been used to diagnose 37 patients ranging in ages from 18 months to 15 years. The most common diagnoses were ADHD, disruptive behavior disorder, ASDs, mixed receptive expressive language delay, learning disabilities, and anxiety.
Building Boosts

CARD has added many new features to make families’ experiences more enjoyable during their visits, including:

**Bay Café:** Located off the hallway by the third floor elevator at our Greenspring site, the Bay Café is a place for families to eat lunch, use the Internet, and relax. Its amenities include plenty of seating, a handicapped-accessible table, refrigerator, coffeemaker, microwave, vending machines, and wireless Internet.

**Valet parking:** CARD is excited to offer free valet parking to its patients and research participants from 8 a.m. to 4 p.m. daily. The valet station is by the front entrance of the building—look for the blue signs.

**Picnic area:** A safe picnic area with three new picnic tables is now available for families to use, located near the parking lot by CARD’s Greenspring campus’s second floor of the building. Feel free to eat your lunch there or, during our warmer months, enjoy the fresh air!

Our New Services

CARD is always working to develop new beneficial programs. We’re proud to announce the following new services:

**Siblings group:** CARD offers two support groups for children who have siblings with an ASD: BEST (Brothers Encouraging Support Together) and SOS (Spotlight on Sisters). The siblings support each other by sharing their experiences, as well as providing suggestions for how to cope with challenges. Families interested in having their children participate should contact Sara Uram, LCSW-C, at 443-923-7387 or uram@kennedykrieger.org.

**Marriage and family therapy:** Starting in December, CARD is excited to offer services with licensed clinical marriage and family therapist Jason Neely. Jason is well versed in providing couples and family therapy, and has an extensive background in the field of ASDs. His intervention focuses on strengthening the relationship between the parents, so that they may parent their children, both those with and without ASD, as effectively as possible. If the affected child is an adolescent and higher functioning, family therapy may also be beneficial.

**Art-based social skills group:** CARD is collaborating with the Walters Art Museum to develop two new social skills groups that will incorporate an art component. More details will be provided as the plans continue to unfold.

Sharing Treatment and Autism Resources (STAR) Trainings:

CARD is thrilled to share our knowledge with the community by hosting STAR Trainings for parents and family members of children with an ASD, as well as professionals who are interested in learning more about ASDs. This FREE training initiative was started in 2007. Since then, we have had over 100 STAR Trainings and 6,000 participants. We are excited to continue to offer these informative sessions to the community!

Free Upcoming STAR Trainings for December and January

**Getting an Autism Spectrum Disorder Diagnosis: Where do I go from here?** – Monday, December 8, 9:30 a.m. to 11:00 a.m., presented by Cathy Groschan, LCSW-C

**What is Transition Planning for a Teen with an ASD Diagnosis?** – Monday, December 8, 1:00 p.m. to 2:30 p.m., presented by Cathy Groschan, LCSW-C

**Autism and Everyday Executive Functions** – Wednesday, January 14, 11:30 a.m. to 12:30 p.m., presented by Paula Moraine, Med

**IEP Mini-Series for Parents** – Saturday, January 24, & Saturday, January 31, 10:00 a.m. to 12:00 p.m., presented by Eva Queen & Oge Ozo-Onyali, Parents’ Place of Maryland LEADers

For more information or to register, visit kenedykriegercard.eventbrite.com.