2024 Summary of Advances Nominations

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Screening and Diagnosis

1	**NIMH**	**Nominated article:** Azu MA, Han GT, Wolf JM, Naples AJ, Chawarska K, Dawson G, Bernier RA, Jeste SS, Dziura JD, Webb SJ, Sugar CA, Shic F, McPartland JC. Clinician-caregiver informant discrepancy is associated with sex, diagnosis age, and intervention use among autistic children. *Autism*. 2024 Sep 30:13623613241279999. [Read Abstract Here]
		Justification from IACC member who nominated article: This study explored discrepancies between clinician and caregiver reports of autism-related behaviors in 280 children aged 6–11 years, all diagnosed with autism. The research aimed to understand how these discrepancies relate to a child's sex at birth, age at first diagnosis, and amount of intervention received. The findings indicated that clinicians observed and reported fewer autism-related behaviors in a clinical setting for females compared to caregivers. In contrast, clinicians reported more autism-related behaviors for males than caregivers did. Additionally, when clinicians reported fewer autism features than caregivers, it was associated with an older age at diagnosis and fewer hours of intervention. These results emphasize the importance of incorporating multiple informants, especially caregivers, in the diagnostic process and developing procedures that are sensitive to the female autism phenotype to improve diagnosis and intervention.
2	**NIMH**	**Nominated article:** Barami T, Manelis-Baram L, Kaiser H, Ilan M, Slobodkin A, Hadashi O, Hadad D, Waissengreen D, Nitzan T, Menashe I, Michaelovsky A, Begin M, Zachor DA, Sadaka Y, Koler J, Zagdon D, Meiri G, Azencot O, Sharf A, Dinstein I. Automated Analysis of Stereotypical Movements in Videos of Children With Autism Spectrum Disorder. *JAMA Netw Open*. 2024 Sep 3;7(9):e2432851. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This study evaluated the use of an AI algorithm to quantify stereotypical motor movements (SMMs) in children with autism, a core trait of the condition. The retrospective cohort study included 319 behavioral assessment videos of 241 children with autism (aged 1.4 to 8.0 years). The algorithm, trained using a 3D convolutional neural network, identified and quantified SMMs by analyzing skeletal representations extracted from the video footage. Results showed the algorithm detected 92.53% of manually identified (i.e., identified by a person looking at the footage) SMMs with 66.82% precision, and the number and duration of algorithm-identified SMMs were highly correlated with manual identifications. The study suggests that the AI algorithm can accurately and objectively measure SMM severity, offering a more efficient and objective method of phenotyping that would save valuable time for clinicians during assessments.
3	**NIMH**	**Nominated article:**

		Duvall SW, Greene RK, Phelps R, Rutter TM, Markwardt S, Grieser Painter J, Cordova M, Calame B, Doyle O, Nigg JT, Fombonne E, Fair D. Factors Associated with Confirmed and Unconfirmed Autism Spectrum Disorder Diagnosis in Children Volunteering for Research. *J Autism Dev Disord*. 2024 Apr 12. [Read Abstract Here]
		Justification from IACC member who nominated article: Obtaining an accurate diagnosis of autism spectrum disorder (ASD) is essential in order to provide families with the appropriate services and interventions their children need. However, many children are still under-diagnosed, over-diagnosed, or misdiagnosed. The present study examined 232 children diagnosed with ASD to confirm their diagnoses using extensive assessments. After dividing their sample into 2 groups: those with a confirmed autism diagnoses (ASD+) and the other with unconfirmed/inaccurate diagnoses (ASD-), the analyses showed that nearly half of the children did not meet the expert criteria for ASD. Those who truly had ASD were more likely to have had early language delays and scored higher on clinician-administered autism diagnostic tools. In contrast, children incorrectly diagnosed with ASD had higher IQ scores and more psychiatric disorders like anxiety and mood disorders. Findings from this study suggest that psychiatric issues may lead to misdiagnosis, and that expert diagnostic tools are more reliable than caregiver questionnaires for confirming ASD.
4	**ED**	**Nominated article:** Fu X, Platt E, Shic F, Bradshaw J. Infant Social Attention Associated with Elevated Likelihood for Autism Spectrum Disorder: A Multi-Method Comparison. *J Autism Dev Disord*. 2024 Apr 28. [Read Abstract Here]
		Justification from IACC member who nominated article: With technology advances continuing to improve the lives and educational experiences of children and students with autism, this article continues the investigation of eye-tracking to measure social and nonsocial stimuli for infants who are at risk for autism. This included capturing atypical social cue from 72 infants at several time points between 3 and 24 months, totaling 216 data points. The findings demonstrated effectiveness in detecting developmental changes in social patterns of the children, leading to the explained potential of using eye-tracking as an early biomarker for autism. Specifically noting the importance of early detection and social attention patterns in the early developmental stages, monitoring tools such as eye-tracking and support can be crucial in early intervention. This article narrows in on the benefits, barriers, and future directions of the use of such technology.
5	**NIMH**	**Nominated article:** Gokmen M, Sariyanidi E, Yankowitz L, Zampella CJ, Schultz RT, Tunç B. Detecting Autism from Head Movements using Kinesics. *Proc ACM Int Conf Multimodal Interact*. 2024 Nov;2024:350-354. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article:

		Head movements are an important component of social communication and interaction. Autism is marked by difficulties in social communication and studies looking at alterations in head movements have been common in assessing and evaluating facets of behavior. Quantifying these head movements can pose many challenges due to a wide range of issues (e.g., duration, speed, social context, etc.). Thus, this study proposed a novel framework to create and implement a computerized coding system for analyzing head movements, including *kines* (the smallest unit of head movement) and kinemes (basic head movements such as nodding and shaking). The authors looked to validate their framework to capture meaningful head movement differences in autism in terms of ASD compared to neurotypical classification. They assessed participants' conversational ability in face-to-face conversations mimicking real-life first-time encounters while head movement data was captured. Results demonstrated a novel, theoretical framework that detects basic head movements and quantifies their temporal scale and magnitude. This framework is able to distinguish head movements of those with autism from neurotypical individuals and demonstrates improved classification accuracy.
6	**NIMH**	**Nominated article:** Hamner T, Perez Liz G, Kelly K, Nanovic S, Turchi R, Fein D, Robins DL. Autism screening and diagnostic outcomes among toddlers born preterm. *Dev Med Child Neurol*. 2024 Aug 21. [Read Abstract Here]
		Justification from IACC member who nominated article: This study aimed to evaluate the Modified Checklist for Autism in Toddlers, Revised, with Follow-Up (M-CHAT-R/F) for screening and diagnostic outcomes in children born preterm. It included 9,725 toddlers who were screened at 15, 18, or 24 months, with screen-positive children invited for further autism evaluation. Results showed that children born extremely preterm had the highest screen-positive rate (51.35%) and autism diagnosis rate (16.05%), while those born at term had the lowest screen-positive rate (6.95%) and autism diagnosis rate (1.49%). The M-CHAT-R/F's sensitivity decreased with increasing gestational age, but its specificity improved, and its positive predictive value was highest for children born extremely preterm and at term. The study concluded that the M-CHAT-R/F is effective for screening toddlers born preterm, with earlier preterm birth linked to higher rates of positive screening and autism diagnoses, suggesting that screening should not be delayed based on adjusted age.
7	**NIMH**	**Nominated article:** Krishnappa Babu PR, Martino J, Aiello R , Eichner B, Espinosa S, Howard J, Perochon S, Spanos M, Vermeer S, Dawson G, Sapiro G. Validation of a Mobile App for Remote Autism Screening in Toddlers. *NEJM AI*. 2024 Sept 26: 1(10). [Read Abstract Here]
		Justification from IACC member who nominated article: Early detection of autism is important for early access to screening, evaluation, and treatment services. The mobile autism screening app *SenseToKnow* was developed to address issues of accessibility,

		efficiency, and objectivity in existing assessment tools. *SenseToKnow* assessed a range of autism-related behaviors in toddlers using an iPhone or iPad (analyzed through computer vision and machine learning). Results showed high accuracy for detecting autism with sensitivity of 83.0%, specificity of 93.3%, positive predictive value of 84.3%, and negative predictive value of 92.6%. Thus, the findings demonstrated the mobile app shows promise in detecting autism by caregivers using their mobile devices at home.
8	**NIMH**	**Nominated article:** McNally Keehn R, Minshawi NF, Tang Q, Enneking B, Ryan T, Martin AM, Paxton A, Monahan PO, Ciccarelli M, Keehn B. Accuracy of the Screening Tool for Autism in Toddlers and Young Children in the primary care setting. *Autism*. 2024 Nov 6:13623613241292850. [Read Abstract Here]
		Justification from IACC member who nominated article: Autism evaluations by specialists are often costly, require extensive training, and involve long wait times and travel for families. Training primary care practitioners to conduct evaluations locally could address these challenges, but effective and accessible tools are essential. The Screening Tool for Autism in Toddlers and Young Children (STAT) was developed for non-specialists but requires further research on its accuracy in community primary care settings. This study tested the STAT in diagnostic evaluations of 130 children (aged 14-48 months) by primary care practitioners. STAT classifications aligned with the Autism Diagnostic Observation Schedule, Second Edition (ADOS-2) in 77% of cases and expert diagnoses in 78%. Misclassified autistic children tended to be older, with higher developmental and adaptive skills and fewer autism traits. STAT results matched primary care practitioner diagnoses in 86% of cases and agreed with both primary care and expert diagnoses in 73%. These findings suggest that the STAT demonstrates good accuracy when used by primary care practitioners in community autism evaluations
9	**NIMH**	**Nominated article:** McNally Keehn R, Paxton A, Delaney M, Ciccarelli M. Training and Sustaining: Training and Learning Collaborative Outcomes Across a Statewide Network for Early Autism Diagnosis. *J Dev Behav Pediatr*. 2024 Nov-Dec 01;45(6):e513-e521. [Read Abstract Here]
		Justification from IACC member who nominated article: This study describes the development of a primary care professional (PCP) autism diagnosis training model, Accelerating the Diagnosis of Autism with Primary care Training (ADAPT). ADAPT is an intensive, standardized training program to prepare PCPs to develop independent competency in evaluation of autism in children aged 14-48 months, including diagnosis-centered didactic training, and case-based observation and practicum experiences. Results showed that from 2021 to 2023, 13 PCPs completed both the ADAPT didactic training and practicum, thus moving to competency in independently evaluating autism. ADAPT training was further enhanced through a longitudinal learning collaborative of PCPs and their teams. Thus, training PCPs in

		engaging in autism diagnostic evaluations, as part of a tiered community-based approach, for very young children shows promise in improving access to diagnostic services and addressing challenges in waitlist times.
10	**SSA, NIMH**	**Nominated article:** Rajagopalan SS, Zhang Y, Yahia A, Tammimies K. Machine Learning Prediction of Autism Spectrum Disorder From a Minimal Set of Medical and Background Information. *JAMA Netw Open*. 2024 Aug 1;7(8):e2429229. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: **SSA**: This diagnostic study of 30,660 participants using machine learning (ML) prediction of autism with only 28 features found high predictive accuracy, sensitivity, and specificity. Validation on independent cohorts showed good generalizability, and developmental milestones and eating behavior emerged as important predictive factors. The model developed in this study shows promise in the early identification of individuals with an elevated likelihood of ASD, using minimal information, which could affect early diagnosis and intervention strategies. **NIMH**: Researchers developed and validated a machine learning (ML) model to predict autism using minimal background and medical information, focusing on early identification to facilitate timely diagnosis and intervention. The study analyzed data from the SPARK database, including 30,660 participants (15,330 with autism and 15,330 without), and validated the model on independent datasets from SPARK and the Simons Simplex Collection. Using the XGBoost algorithm, referred to as "AutMedAI," the model demonstrated strong performance, with an AUROC score of 0.895, a sensitivity of 0.805, and a specificity of 0.829. Developmental milestones and eating behavior emerged as the most significant predictors. The model performed well on independent cohorts, achieving an AUROC of 0.790, underscoring its generalizability. Researchers noted the model's ability to accurately identify autistic individuals with more symptoms and lower cognitive levels. These results suggest that ML tools like AutMedAI hold promise for early autism detection in clinical and broader population settings, enabling earlier interventions and potentially improving developmental outcomes.
11	**Alycia Halladay**	**Nominated article:** Sturm A, Huang S, Bal V, Schwartzman B. Psychometric exploration of the RAADS-R with autistic adults: Implications for research and clinical practice. *Autism*. 2024 Feb 2:13623613241228329. [Read Abstract Here]
		Justification from IACC member who nominated article: The Sturm paper examines the psychometrics of a survey tool called the Ritvo Autism/Asperger's Scale-Revised, or RAADS-R for self-diagnosis in ASD. This tool has received a lot of accolades from members of the autism community for being a diagnostic tool. This study showed that it is an effective screener, but is not a valid diagnostic instrument. They also identified some improvements that should be made before it is

		recommended for use diagnostic instrument, and note that those who self-diagnosed matched very closely to those who were professionally diagnosed, so it has potential.
12	**ED**	**Nominated article:** Tagavi DM, Dai YG, Berger NI, Petruccelli M, Scott SE, Oosting D, Howard M, Carter AS, Ingersoll B, Wainer AL, Broder-Fingert S, Stone WL. Applying a User-Centered Design Framework to Develop a Remote Research Assessment Protocol for a Randomized Clinical Trial for Toddlers with Early Autism Characteristics. *J Autism Dev Disord*. 2024 Jul 10. [Read Abstract Here]
		Justification from IACC member who nominated article: With an emphasis on early detection, diagnosis, and intervention, the use of technology continues to shine as a potential for furthering access. This article describes, through the User-Centered Design framework, the development and testing of a remote research assessment for toddlers showing early signs of autism characteristics. This included a two-phase process of developing the Communication Play Protocol through an iterative redesign using UCD methods, followed by piloting it with 19 staff members and 185 families. Using these remote assessment tools, findings included increase access for families with high usability and feasibility rates and reducing burden for families. Given the increase in remote services, this research is continuing to grow and develop as a viable way to support telehealth and remote methodologies for increased access for children with or at higher likelihood for autism and their families.
13	**NIMH**	**Nominated article:** Talbott MR, Young GS, Ozonoff S. Can combining existing behavioral tools improve identification of infants at elevated likelihood of autism in the first year of life? *Autism*. 2024 Sep 12:13623613241275455. [Read Abstract Here]
		Justification from IACC member who nominated article: Current screening tools identify behavioral differences but have challenges distinguishing between autism and other developmental delays and whether they are likely to resolve on their own. This study explored whether combining multiple behavioral measures in infants can improve the prediction of developmental outcomes in toddlerhood. Analyzing data from 256 infants with an older autistic sibling, the researchers examined three behavioral measures at 6, 9, and 12 months to determine their ability to predict outcomes at 36 months. Infants meeting multiple behavioral criteria were more likely to have developmental concerns, including autism. The researchers found that few infants had met more than one behavioral criterion but those who did meet two or more were likely to have autism or other developmental delays. These findings suggest that when behavioral differences are present on multiple measures, there is no need to "wait and see" before referring for services.
14	**NIMH**	**Nominated article:**

		Vivanti G, Algur Y, Ryan V, McClure LA, Fein D, Stahmer AC, Wieckowski AT, Robins DL. The Impact of Using Standardized Autism Screening on Referral to Specialist Evaluation for Young Children on the Autism Spectrum: A Cluster-Randomized Controlled Trial. *J Am Acad Child Adolesc Psychiatry*. 2024 Oct 15:S0890-8567(24)01933-6. [Read Abstract Here]
		Justification from IACC member who nominated article: A multi-site cluster randomized trial tested the impact of standardized, high-fidelity autism screening using the M-CHAT-R/F during well-child visits. Practices implementing the screening referred more children (n = 186) at a younger average age (20.65 months) compared to usual care practices (n = 39; 23.58 months). Diagnosed children from the experimental group exhibited subtler clinical presentations across cognitive, language, adaptive, and social-communication measures, while demographic characteristics were consistent between groups. The findings demonstrate that standardized screening facilitates earlier identification of autism, including in children with subtler clinical manifestations.
15	**NIMH**	**Nominated article:** Wilson RB, Vangala S, Reetzke R, Piergies A, Ozonoff S, Miller M. Objective measurement of movement variability using wearable sensors predicts ASD outcomes in infants at high likelihood for ASD and ADHD. *Autism Res*. 2024 Jun;17(6):1094-1105. [Read Abstract Here]
		Justification from IACC member who nominated article: Children with autism and attention-deficit/hyperactivity disorder (ADHD) often experience early motor delays, but it's unclear if there are specific signs that can tell these conditions apart. Researchers used a new method called movement curvature, measured with a wearable device, to study how infants' movements differ. They followed infants at likelihood for autism and ADHD from 12 to 36 months old. By 36 months, they categorized the children into ASD, ADHD concerns, or a comparison group. They found that infants later diagnosed with ASD had consistently lower movement curvature at 18, 24, and 36 months compared to those with ADHD concerns or typical development. Lower movement curvature also predicted ASD diagnosis, suggesting it could be an early marker for motor differences in autism as early as 18 months old.
		Biology
16	**NIMH**	**Nominated article:** Andrews DS, Diers K, Lee JK, Harvey DJ, Heath B, Cordero D, Rogers SJ, Reuter M, Solomon M, Amaral DG, Nordahl CW. Sex differences in trajectories of cortical development in autistic children from 2-13 years of age. *Mol Psychiatry*. 2024 Nov;29(11):3440-3451. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article:

		This study investigated sex-specific differences in cortical development of children with autism. Specifically, the study investigated sex differences in cortical thickness and trajectory of cortical thinning using longitudinal MRI data across 4 timepoints in 290 children (202 males, 88 females) with autism and 139 nonautistic typically developing children (79 males, 60 females) ages approximately 3 to 12 years old. Data included significant representation of autistic females to investigate sex difference as well as their being historically underrepresented in autism research. Results showed significant sex differences in cortical development during childhood involving multiple neural networks. Relative to their nonautistic peers, autistic females had more extensive cortical differences than autistic males. Autistic females also showed thicker cortex at approximately 3 years of age and faster cortical thinning. Cortical regions that were different between autistic females and males significantly overlapped with regions that differed by sex in neurotypical development. Autistic females and males did demonstrate some shared differences in cortical thickness and rate of cortical thinning across childhood relative to their nonautistic peers, however these areas were relatively small compared to the widespread differences observed across the sexes. These results support evidence of sex-specific neurobiology in autism and suggest the processes related to neurotypical sex differentiation may be related to sex differences in the etiology of autism.
17	**NIMH**	**Nominated article:** Arutiunian V, Santhosh M, Neuhaus E, Borland H, Tompkins C, Bernier RA, Bookheimer SY, Dapretto M, Gupta AR, Jack A, Jeste S, McPartland JC, Naples A, Van Horn JD, Pelphrey KA, Webb SJ. The relationship between gamma-band neural oscillations and language skills in youth with Autism Spectrum Disorder and their first-degree relatives. *Mol Autism*. 2024 May 7;15(1):19. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Many children diagnosed with autism commonly have language difficulties, which is also present in their non-autistic, first-degree relatives. In this study, researchers explored a potential brain mechanism behind these language issues by examining brain activity related to speech. Using a specific brain scan technique known as electroencephalography (EEG), researchers measured brain responses to speech in 125 children with autism, 121 typically developing children, and 40 non-autistic siblings of children with autism. The findings showed that children with autism had higher levels of certain brain waves (gamma power) when processing speech compared to typically developing children. Higher gamma power was linked to poorer language skills across all children. The non-autistic siblings showed brain activity and language skills that were between those of the autism and typically developing groups, suggesting that some brain characteristics of autism can also be seen in family members. This study highlights a

		possible brain-related mechanism responsible for language difficulties in children with autism.
18	**Alycia Halladay**	**Nominated article:** Chen X, Birey F, Li MY, Revah O, Levy R, Thete MV, Reis N, Kaganovsky K, Onesto M, Sakai N, Hudacova Z, Hao J, Meng X, Nishino S, Huguenard J, Pașca SP. Antisense oligonucleotide therapeutic approach for Timothy syndrome. *Nature*. 2024 Apr;628(8009):818-825. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: The Chen paper utilized a novel model system, organoids, to screen for a potential drug therapy that targets the gene for Timothy Syndrome, which has autism as one of its common features. Timothy Syndrome is characterized by neurodevelopmental disorders and heart problems, and using this model, the targeted gene therapy identified through the organoid platform, was able to partially reverse the calcium signal loss and the neuron dendrite retraction characteristic of this Syndrome.
19	**NIDCD**	**Nominated article:** Chen Y, Siles B, Tager-Flusberg H. Receptive language and receptive-expressive discrepancy in minimally verbal autistic children and adolescents. *Autism Res*. 2024 Feb;17(2):381-394. [Read Abstract Here]
		Justification from IACC member who nominated article: This study included 1579 minimally verbal (MV) autistic children and adolescents between 5 and 18 years of age drawn from the National Database for Autism Research and the SFARI Base data repository. Overall, our sample demonstrated significantly better receptive than expressive language. However, at the individual level, only about 25% of MV autistic children and adolescents demonstrated significantly better receptive language relative to their minimal expressive levels. Social skills explained a significant proportion of the variance in parent-reported receptive language skills, while motor skills were the most significant predictor of greater receptive-expressive discrepancy. Findings from this study revealed the heterogeneous language profiles in MV autistic children and adolescents, underscoring the importance of individualizing interventions to match their different communication strengths and needs and integrating multiple interconnected areas to optimize their overall development of language comprehension, socialization, and general motor skills.
20	**NIMH**	**Nominated article:** Corbett BA, Muscatello RA, McGonigle T, Vandekar S, Burroughs C, Sparks S. Trajectory of depressive symptoms over adolescence in autistic and neurotypical youth. *Mol Autism*. 2024 May 2;15(1):18. [Read Abstract Here]
		Justification from IACC member who nominated article: Adolescence is a critical period for the onset of psychiatric conditions like depression, which can be particularly prevalent for youth with autism. While both autistic and typically developing (TD) youth experience worsening depression during adolescence, it's unclear if their experiences are similar. This study followed autistic and neurotypical

		youth over four years, using linear and logistic mixed effects models to track depressive symptoms. The study involved 244 youths aged 10 to 13. Researchers found that autistic youth had higher depression scores than their TD peers, and females had higher scores than males in both groups. Significant interactions were found between diagnosis and age, and diagnosis and pubertal stage. In the autism group, depression scores were high in early adolescence but decreased during middle adolescence and puberty, whereas the TD group showed increasing depression symptoms as they aged. The findings suggest that while autistic youth initially have higher rates of depressive symptoms, these decrease over time, whereas TD youth see an increase, leading to similar levels of depression by late adolescence.
21	**NIMH**	**Nominated article:** Cordova M, Hau J, Schadler A, Wilkinson M, Alemu K, Shryock I, Baker A, Chaaban C, Churchill E, Fishman I, Müller RA, Carper RA. Structure of subcortico-cortical tracts in middle-aged and older adults with autism spectrum disorder. *Cereb Cortex*. 2024 Dec 3;34(12):bhae457. [Read Abstract Here]
		Justification from IACC member who nominated article: Middle-aged and older adults with autism are an understudied population though may be susceptible to accelerated neurobiological changes due to aging with autism. The study used MRI to investigate their hypothesis that middle-aged and older autistic adults (n=29) would demonstrate altered microstructural and volume differences among St-cortical and Th-cortical tracts compared to a typical comparison group (TC, n=33) of adults, 40 to 70 years old. Results indicate alterations to cortico-striato-thalamo-cortical (CSTC) circuits in the middle-aged and older adults with autism, particularly in feedforward aspects. These differences may contribute to altered responses to social and sensory environments commonly observed in autism. Overall, this study contributes to the limited literature on the neurobiology of aging in autism.
22	**NIMH, Alycia Halladay**	**Nominated article:** Courchesne E, Taluja V, Nazari S, Aamodt CM, Pierce K, Duan K, Stophaeros S, Lopez L, Barnes CC, Troxel J, Campbell K, Wang T, Hoekzema K, Eichler EE, Nani JV, Pontes W, Sanchez SS, Lombardo MV, de Souza JS, Hayashi MAF, Muotri AR. Embryonic origin of two ASD subtypes of social symptom severity: the larger the brain cortical organoid size, the more severe the social symptoms. *Mol Autism*. 2024 May 25;15(1):22. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: **NIMH**: This study explores the biological underpinnings of the variability in social and communication traits in toddlers with autism, distinguishing between those with improving abilities and those with higher support needs who require lifelong care. Researchers measured size and growth in brain cortical organoids (BCOs) derived from autistic and non-autistic toddlers, finding significantly larger BCOs in autistic toddlers. The study revealed two ASD subtypes: one with markedly enlarged BCOs,

		accelerated neurogenesis, severe social traits, and reduced cognitive and language abilities, and another with milder BCO enlargement. Larger embryonic BCO size correlated with more severe social traits and reduced cognitive abilities. The study highlights dysregulated cell proliferation and neurogenesis as key factors in the biological basis of ASD subtypes from embryogenesis, suggesting the need for larger samples to identify additional subtypes. **Alycia Halladay**: A study out of UCSD using stem cell models combined with brain imaging to determine molecular and structural changes based on different phenotypes. The more "severe" phenotype, also called "profound" had a different biological signature vs. those without intellectual disability. This emphasizes the need to ensure that factors like intellectual ability and speaking ability are incorporated into research studies for more personalized interventions.
23	**NIDCD, NIMH**	**Nominated article:** Duan K, Eyler L, Pierce K, Lombardo MV, Datko M, Hagler DJ, Taluja V, Zahiri J, Campbell K, Barnes CC, Arias S, Nalabolu S, Troxel J, Ji P, Courchesne E. Differences in regional brain structure in toddlers with autism are related to future language outcomes. *Nat Commun*. 2024 Jun 13;15(1):5075. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: **NIDCD**: Language and social symptoms improve with age in some autistic toddlers, but not in others, and such outcome differences are not clearly predictable from clinical scores alone. This study demonstrates that autistic toddlers show differentially larger or thicker temporal and fusiform regions; smaller or thinner inferior frontal lobe and midline structures; larger callosal subregion volume; and smaller cerebellum. These brain alterations improve accuracy for predicting language outcome at 6-month follow-up beyond intake clinical and demographic variables. Among autistic toddlers, brain alterations in social, language and face processing areas enhance the prediction of the child's future language ability. This article highlights important predictors of future language ability as well as important underpinnings for language growth. **NIMH**: Differences in the improvement of language and social skills cannot be reliably predicted by clinical scores alone. The investigators in this study sought to identify early brain changes in autism that can predict future language abilities. By analyzing MRI scans from 166 autistic and 109 typical toddlers, researchers found that toddlers diagnosed with ASD have unique brain differences in regions related to language and social processing. These identified brain changes help predict language outcomes more accurately than clinical scores alone. Continued study of these brain alterations can help identify which autistic children might need more support with language development.
24	**NIMH**	**Nominated article:**

		Ferguson EF, Spackman E, Cai RY, Hardan AY, Uljarević M. Exploring the Heterogeneity of Self-Injurious Behaviors in Autistic Youth: Patterns, Predictors, and Implications for Intervention. *Autism Res*. 2024 Nov 22. [Read Abstract Here]
		Justification from IACC member who nominated article: This study investigates self-injurious behaviors (SIB) in autistic youth, which have a significant impact on quality of life for affected autistic individuals and their families. To date, there has been limited research in this area and there are few effective interventions. This study explores the severity of various SIB topographies and their associations with different factors. The sample included 582 autistic youth, with an average age of 12.12 years. Results showed that 30%-50% of caregivers reported significant concerns about specific SIB behaviors, such as biting nails or skin, scratching, hitting the head/face/neck, banging the head against objects, and picking skin. Generalized additive models demonstrated distinct patterns of associations between each SIB topography and dysregulation, sensory hypersensitivity, age, sex, IQ, and language level. The findings underscore the importance of exploring SIB as a multifaceted rather than a monolithic construct to capture unique correlates of distinct SIB that vary in severity and functional impact, which is critical for the development of effective and individualized interventions.
25	**NIMH**	**Nominated article:** Franke CJ, Griffin JW, Naples AJ, Wolf JM, McPartland JC. Social Anxiety Reduces Visual Attention to the Eyes of Emotional Faces in Autistic Youth. *J Autism Dev Disord*. 2024 Nov 18. [Read Abstract Here]
		Justification from IACC member who nominated article: Although autism and social anxiety share behavioral features (reduced eye contact, variable social attention, differences in social interactions), the impact of the co-occurrence of these conditions on social attention is unknown. Thus, the study investigated whether social anxiety in autistic youth modulated social attention or looking at faces. Participants, 54 autistic and 35 non-autistic children and adolescents, completed a gaze-contingent-eye tracking paradigm in which faces expressed happy or fearful expressions based upon participants' eye contact. Social anxiety was measured by self and parent report and social attention was measured via eye tracking. Results showed autistic participants looked less at faces than non-autistic participants, and higher self-report social anxiety was associated with less looking at eyes in both autistic and non-autistic participants, i.e., social anxiety had a similar influence on social attention in autistic and non-autistic individuals. Thus, those with autism and high social anxiety may not represent a specific subtype of autism but demonstrates co-occurring psychiatric characteristics.
26	**NIMH**	**Nominated article:** Gohari D, Schiltz H, Lord C. A Longitudinal Study of Aggression in People with Autism and Other Neurodevelopmental Disabilities. *J Autism Dev Disord*. 2024 Sep 27. [Read Abstract Here]
		Justification from IACC member who nominated article:

		This study tracked aggression in 254 individuals with autism and neurodevelopmental disorders (NDDs) from toddlerhood to emerging adulthood, with a focus on cognitive abilities. The sample included individuals classified as more-cognitively-abled (MCA) and less-cognitively-abled (LCA). Aggression was assessed at ages 2, 9, and 18 using multiple behavioral measures. Results showed that aggression was common at all stages, with 54% in toddlerhood, 69% in school age, and 42% in emerging adulthood. LCA individuals exhibited higher aggression rates than MCA individuals, particularly in school age and emerging adulthood. Longitudinal profiles revealed diverse patterns: 31% displayed persistent aggression, 25% increased, 23% decreased, and 13% showed no aggression. Aggression was linked to higher autism traits, lower IQ, and less-developed adaptive skills. Higher nonverbal IQ and fewer repetitive behaviors were protective against aggression. The study highlights that aggression peaks around age 9 and declines in emerging adulthood, with distinct patterns across individuals.
27	**NIMH**	**Nominated article:** Jaswal VK, Lampi AJ, Stockwell KM. Literacy in nonspeaking autistic people. *Autism*. 2024 Feb 21:13623613241230709. [Read Abstract Here]
		Justification from IACC member who nominated article: Research remains unclear whether nonspeaking autistic individuals can acquire spelling skills. Researchers conducted a study to investigate this possibility, involving 31 autistic teenagers and adults who speak minimally or not at all. They engaged in an iPad game where they tapped flashing letters, and researchers observed how quickly they responded. The participants demonstrated three key spelling behaviors. They tapped letters faster when they formed coherent sentences compared to random sequences, showed quicker responses to commonly paired letters, indicating an understanding of spelling conventions, and paused before tapping the first letter of a new word, demonstrating awareness of word boundaries. These findings suggest that many nonspeaking autistic individuals may be capable of learning to spell.
28	**NIMH**	**Nominated article:** Kohli JS, Linke AC, Martindale IA, Wilkinson M, Kinnear MK, Lincoln AJ, Hau J, Shryock I, Omaleki V, Alemu K, Pedrahita S, Fishman I, Müller RA, Carper RA. Associations between atypical intracortical myelin content and neuropsychological functions in middle to older aged adults with ASD. *Brain Behav*. 2024 Jun;14(6):e3594. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Researchers aimed to see if the myelin content in the brain's cortex differed between middle-aged and older adults with autism and those without autism. They analyzed data from 30 people with autism and 36 non-autistic participants aged 40-70 years. Using both group and individual analyses, they found no significant differences in the average myelin content or age-related changes in myelin content between the groups. However, they did find that myelin content increased with age across the cortex in both groups. Individual analyses showed that some

		autistic participants had unusually high myelin content in certain brain areas, and these individuals had lower cognitive abilities, including overall intelligence, processing speed, and executive function. This study highlights the importance of examining individual differences, providing initial insights into the relationship between brain structure and cognitive abilities in older adults with autism. These findings suggest that unusual myelin content might be linked to poorer cognitive outcomes in some older autistic adults, reflecting their diverse neurodevelopmental histories and aging processes.
29	**NIMH**	**Nominated article:** Lang J, Wylie G, Haig C, Gillberg C, Minnis H. Towards system redesign: An exploratory analysis of neurodivergent traits in a childhood population referred for autism assessment. *PLoS One*. 2024 Jan 10;19(1):e0296077. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This study evaluated the overlap of neurodivergent traits in children referred for autism assessment, reflecting a shift in health services toward more holistic neurodevelopmental evaluations. Using a cross-sectional service evaluation design, researchers analyzed anonymized medical records of 114 children aged 2–17 years. Validated questionnaires assessed traits in motor, learning, and attention/activity level domains, with a weighted scoring system identifying neurodivergence above the median threshold. Among the 71 children with completed questionnaires, 71.8% exhibited traits of at least one additional neurotype, and 88.7% were diagnosed with autism. However, only 26.3% of those with evidence of other neurodivergences underwent further investigations. These findings highlight significant clinical overlap among neurodivergent traits and suggest that incorporating standardized questionnaires into neurodevelopmental assessments could improve their comprehensiveness and effectiveness.
30	**NIMH**	**Nominated article:** Liu J, Girault JB, Nishino T, Shen MD, Kim SH, Burrows CA, Elison JT, Marrus N, Wolff JJ, Botteron KN, Estes AM, Dager SR, Hazlett HC, McKinstry RC, Schultz RT, Snyder AZ, Styner M, Zwaigenbaum L, Pruett JR Jr, Piven J, Gao W. Atypical functional connectivity between the amygdala and visual, salience regions in infants with genetic liability for autism. *Cereb Cortex*. 2024 May 2;34(13):30-39. [Read Abstract Here]
		Justification from IACC member who nominated article: The amygdala, a part of the brain, grows rapidly in the first year of life, resulting in an enlarged size by 12 months in infants who are later diagnosed with autism. This overgrowth may affect brain function during infancy. Researchers investigated whether the amygdala's connectivity with other brain regions differs in 12-month-olds at high likelihood (HL) for autism (those with an older sibling with autism) compared to those at low likelihood (LL). They focused on the connectivity between the left and right amygdalae and other brain areas, particularly the visual cortex, as previous studies suggested that visual brain regions develop differently in children with a genetic risk for autism. The study found

		that HL infants had weaker connections between the right amygdala and the left visual cortex, and between the left amygdala and the right anterior cingulate. These differences were seen in specific subgroups of the HL infants. Additionally, the strength of amygdala connectivity with the visual cortex was linked to motor and communication skills in HL infants. These findings suggest that atypical connections between the amygdala and visual areas are present in infants with a genetic likelihood for autism and may influence early adaptive behaviors.
31	**NIMH**	**Nominated article:** Maes P, La Valle C, Tager-Flusberg H. Frequency and characteristics of echoes and self-repetitions in minimally verbal and verbally fluent autistic individuals. *Autism Dev Lang Impair*. 2024 Jul 25;9:23969415241262207. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This study explored nongenerative speech, including echolalia, in minimally verbal and verbally fluent autistic individuals aged 6-21 years. The researchers analyzed spontaneous and nongenerative speech from ADOS-2 assessments, examining their frequency, linguistic structure, and associations with individual characteristics such as IQ, receptive vocabulary, and age. Results showed that minimally verbal individuals produced significantly more nongenerative speech than verbally fluent individuals, with nongenerative speech linked to nonverbal IQ and receptive vocabulary across the sample. Verbally fluent individuals, however, produced fewer nongenerative utterances as age increased. The study suggests that nongenerative speech is a key feature in minimally verbal individuals and should be further researched to better understand its role in communication and to engage this group effectively.
32	**Helen Tager-Flusberg**	**Nominated article:** Mandelli V, Landi I, Ceccarelli SB, Molteni M, Nobile M, D'Ausilio A, Fadiga L, Crippa A, Lombardo MV. Enhanced motor noise in an autism subtype with poor motor skills. *Mol Autism*. 2024 Sep 3;15(1):36. [Read Abstract Here]
		Justification from IACC member who nominated article: This study identified two distinct motor subtypes in autistic children—'high' and 'low' motor ability—by analyzing data from 156 autistic, 149 typically developing (TD), and 23 developmental coordination disorder (DCD) children aged 3–16 years. The motor subtypes were based on patterns of motor abilities measured using the Movement Assessment Battery for Children 2nd edition. The 'low' motor ability subtype, which showed lower general intellectual ability, older age at independent walking, and higher motor noise during feedforward reaching actions, had significantly more motor noise compared to both the 'high' subtype and TD children. The 'high' motor ability subtype, however, exhibited motor noise levels similar to TD children. Motor noise, operationalized as the dissimilarity between repeated motor kinematic trajectories, was notably higher in the 'low' motor subtype compared to both the 'high' motor subtype and TD children. These findings, validated with 89%

		accuracy, suggest that autism may involve different biological mechanisms for motor abilities, and further research is needed with larger samples and a broader range of motor tasks to deepen understanding of these subtypes.
33	**Alycia Halladay**	**Nominated article:** Mandelli V, Severino I, Eyler L, Pierce K, Courchesne E, Lombardo MV. A 3D approach to understanding heterogeneity in early developing autisms. *Mol Autism*. 2024 Sep 30;15(1):41. [Read Abstract Here]
		Justification from IACC member who nominated article: This study examines different subgroups of autism not based on autism features, but by associated features: Language, Intellectual Ability, Motor and Adaptive Behavior. They found that these features can stratify people with autism into two distinct groups based on their behavioral characteristics, these groups also identify biological differences in brain structure and function.
34	**Helen Tager-Flusberg**	**Nominated article:** McFayden TC, Rutsohn J, Cetin G, Forsen E, Swanson MR, Meera SS, Wolff JJ, Elison JT, Shen MD, Botteron K, Dager SR, Estes A, Gerig G, McKinstry RC, Pandey J, Schultz R, St John T, Styner M, Truong Y, Zwaigenbaum L, Hazlett HC, Piven J, Girault JB; IBIS Network. White matter development and language abilities during infancy in autism spectrum disorder. *Mol Psychiatry*. 2024 Jul;29(7):2095-2104. [Read Abstract Here]
		Justification from IACC member who nominated article: This study investigated the relationship between white matter (WM) development and language trajectories in infants at varying likelihoods of developing autism. Using data from the Infant Brain Imaging Study, the sample included 321 high-likelihood (HL) infant siblings of children with ASD—70 of whom were later diagnosed with ASD (HL-ASD) and 251 who were not (HL-Neg)—and 140 low-likelihood (LL-Neg) infants not diagnosed with ASD. Expressive language, receptive language, and diffusion tensor imaging data were collected at 6, 12, and 24 months. Mixed effects regression models revealed significant associations between WM microstructural changes in the right arcuate fasciculus and expressive language development, with distinct developmental patterns in the HL-ASD group compared to HL-Neg and LL-Neg groups. Specifically, HL-ASD infants exhibited a positive association between WM fractional anisotropy and language, whereas the other groups showed weak or no association. These findings, emerging most strongly at 24 months, highlight the role of arcuate fasciculus WM in early language development in ASD and represent the first evaluation of WM and language associations during the period prior to development of autism traits.
35	**NIMH**	**Nominated article:** Newman BT, Jacokes Z, Venkadesh S, Webb SJ, Kleinhans NM, McPartland JC, Druzgal TJ, Pelphrey KA, Van Horn JD; GENDAAR Research Consortium. Conduction velocity, G-ratio, and extracellular

		water as microstructural characteristics of autism spectrum disorder. *PLoS One*. 2024 Apr 17;19(4):e0301964. [Read Abstract Here]
		Justification from IACC member who nominated article: This study utilized Diffusion MRI to develop mathematical models of brain microstructures that have helped identify structural differences in the brains of those with autism and those without. The results are a first-of-its-kind approach to calculating the conductivity of neural axons and their capacity to carry information through the brain. The team found slower electrical conductivity in autistic brains due to variations in axon diameter. These differences have been directly linked to participants' scores on the Social Communication Questionnaire, a common clinical tool for diagnosing autism. The research is part of the NIH's Autism Center of Excellence initiative.
36	**NIMH**	**Nominated article:** Northrup JB, Hartman AG, MacKenzie KT, Sivathasan S, Eldeeb S, Mazefsky CA. Emotion dysregulation in autism: Severity and correlates in early childhood. *Autism Res*. 2024 Nov 8. [Read Abstract Here]
		Justification from IACC member who nominated article: Emotion dysregulation (ED) is prevalent in certain autistic populations but is rarely addressed during early autism screening or intervention, and research on ED in preschool-aged autistic children remains limited. This study examined ED in 2-5-year-old children across three groups: autistic children, children with developmental concerns but no autism, and children with no developmental concerns. A total of 1864 parents (Mean child age = 4.21 years; 37% female) completed online measures of ED using the Emotion Dysregulation Inventory-Young Child, which assesses reactivity (intense emotional reactions) and dysphoria (sadness, unease). Autistic preschoolers exhibited significantly more severe ED than peers without developmental concerns and were nearly four times more likely to show clinically significant reactivity and three times more likely to show dysphoria. In autistic children, ED was strongly associated with autistic traits, sleep problems, speaking ability, and parent depression. These findings underscore the need for further research and the potential benefits of screening and intervention for ED in young autistic children.
37	**Alycia Halladay**	**Nominated article:** Ozonoff S, Young GS, Bradshaw J, Charman T, Chawarska K, Iverson JM, Klaiman C, Landa RJ, McDonald N, Messinger D, Schmidt RJ, Wilkinson CL, Zwaigenbaum L. Familial Recurrence of Autism: Updates From the Baby Siblings Research Consortium. *Pediatrics*. 2024 Aug 1;154(2):e2023065297. [Read Abstract Here]
		Justification from IACC member who nominated article: This paper comes from the Baby Siblings Research Consortium, which replicated a 2011 finding that about 20% of infant siblings of those with a diagnosis will go on to receive a diagnosis themselves, which means these kids should be on the fast track to behavioral interventions to support behavioral outcomes. Because there were more individuals in this analysis, another finding was that the M/F bias was eliminated in

		families with more than one sibling, and that those with female siblings were more likely to receive a diagnosis.
38	**NIMH**	**Nominated article:** Pugliese CE, Handsman R, You X, Anthony LG, Vaidya C, Kenworthy L. Probing heterogeneity to identify individualized treatment approaches in autism: Specific clusters of executive function challenges link to distinct co-occurring mental health problems. *Autism*. 2024 Apr 20:13623613241246091. [Read Abstract Here]
		Justification from IACC member who nominated article: Many autistic individuals face significant mental health issues such as anxiety, depression, inattention, and aggression, posing challenges for effective interventions. Executive function difficulties, common among autistic individuals, may contribute to these mental health problems or complicate treatment efforts. While some respond well to therapies or medications, others do not. This study aimed to identify distinct subgroups of autistic youth based on their patterns of executive function, including abilities like flexibility, planning, self-monitoring, and emotion regulation. Researchers then examined whether these executive function subgroups were associated with specific mental health issues. The study identified three distinct executive function subgroups among autistic youth, each showing unique patterns of mental health challenges. These findings offer insights into tailoring personalized supports, services, and treatment strategies to address the specific executive function strengths and challenges of individuals with autism and their associated mental health conditions.
39	**NIMH**	**Nominated article:** Richdale AL, Shui AM, Lampinen LA, Katz T. Sleep disturbance and other co-occurring conditions in autistic children: A network approach to understanding their inter-relationships. *Autism Res*. 2024 Nov;17(11):2386-2404. [Read Abstract Here]
		Justification from IACC member who nominated article: Autistic children often experience co-occurring psychological, behavioral, or medical conditions. This study explored relationships between child behaviors, sleep, adaptive behavior, autistic traits, mental health conditions, and health in autistic children. Participants included two cohorts from the Autism Treatment Network registry: 2-5 years (n = 2372) and 6-17 years (n = 1553). Analysis revealed that sleep difficulties and aggressive behaviors were the most influential factors for young children, while for older children, aggressive behaviors, social problems, and anxious/depressed behavior were key. Both cohorts shared sleep disturbances as a prominent feature, highlighting their transdiagnostic nature and relevance for intervention. Aggressive behavior also emerged as an important clinical flag. These findings suggest that sleep and behavioral issues are central to co-occurring conditions in autism, guiding the development of treatments and monitoring strategies.
40	**NIMH**	**Nominated article:** Romero C, Goodman ZT, Kupis L, Dirks B, Parlade MV, Beaumont AL, Cardona SM, Nomi JS, Alessandri M, Perry LK, Uddin LQ. Multilingualism

		impacts children's executive function and core autism symptoms. *Autism Res*. 2024 Nov 7. [Read Abstract Here]
		Justification from IACC member who nominated article: Autism is associated with variability in executive function (EF) abilities, including inhibition and shifting, which relate to core traits like perspective taking, social communication, and repetitive behavior. This study examined how multilingualism influences EF and autism traits in 7-12-year-old children with and without ASD (N = 116; 53 ASD, Mean age = 9.94 years). Results indicated that multilingual children exhibited stronger parent-reported EF abilities, including inhibition, shifting, and perspective-taking, than monolingual peers. The effects of multilingualism on inhibition were more pronounced in children with ASD than in typically developing children. Additionally, multilingualism indirectly influenced perspective taking, social communication, and repetitive behaviors through EF skills. These findings highlight the potential of multilingual experience to enhance EF and mitigate autism-related traits.
41	**NIMH**	**Nominated article:** Saleh MG, Bloy L, Blaskey L, Roberts TPL. GABA and glutamate measurements in temporal cortex of autistic children. *Autism Res*. 2024 Dec;17(12):2558-2571. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Challenges with social communication are a common feature in individuals with autism. A potential contribution to these difficulties is thought to involve an imbalance in the levels of the excitatory neurotransmitter glutamate (Glu) and inhibitory neurotransmitter γ-aminobutyric acid (GABA) in the brain. This study used MR imaging (MRI) and spectroscopy (MRS) to evaluate GABA and Glu levels in the left and right temporal cortices, notably the superior temporal gyrus given its role in auditory processing, as well as speech perception and production. In a group of children (7-18 years old), those with autism had no differences in the left hemisphere, but the right hemisphere showed higher GABA and lower Glu concentrations compared to children without autism. There was a negative association between the right hemisphere Glu levels of the autism group and a clinical assessment tool reflecting autism trait severity (in a social responsiveness scale). Further research, via longitudinal studies, may provide more information about these changes across development and their potential persistence into adulthood.
42	**Alycia Halladay**	**Nominated article:** Schendel D, Ejlskov L, Overgaard M, Jinwala Z, Kim V, Parner E, Kalkbrenner AE, Ladd Acosta C, Fallin MD, Xie S, Mortensen PB, Lee BK. 3-generation family histories of mental, neurologic, cardiometabolic, birth defect, asthma, allergy, and autoimmune conditions associated with autism: An open-source catalog of findings. *Autism Res*. 2024 Oct;17(10):2144-2155. [Read Abstract Here]
		Justification from IACC member who nominated article:

		This paper utilizes records from Denmark, which are able to track family medical history back a generation and in 2nd degree relatives, to identify associations between autism and psychiatric and medical symptoms in those second-degree relatives. This study also provides a searchable dataset so scientists can look more closely at the many comparisons done. It shows a broad spectrum of common features in not just first degree but second-degree relatives which helps family members not just understand probability but provide an explanation to their own medical and psychiatric issues.
43	**Helen Tager-Flusberg**	**Nominated article:** Shiraishi T, Katayama Y, Nishiyama M, Shoji H, Miyakawa T, Mizoo T, Matsumoto A, Hijikata A, Shirai T, Mayanagi K, Nakayama KI. The complex etiology of autism spectrum disorder due to missense mutations of CHD8. *Mol Psychiatry*. 2024 Jul;29(7):2145-2160. [Read Abstract Here]
		Justification from IACC member who nominated article: CHD8 is an ATP-dependent chromatin-remodeling factor encoded by the most frequently mutated gene in individuals with autism. This study investigated the role of missense mutations in the CHD8 gene. While prior research has focused on CHD8 haploinsufficiency, this study analyzed missense mutations using six prediction scores and assessed their impact on CHD8's biochemical activities, neural differentiation in embryonic stem cells, and mouse behavior. Only mutations with high prediction scores were associated with ASD-like phenotypes in mice, indicating that not all CHD8 missense mutations contribute to ASD development. High-score mutations were found to induce ASD through mechanisms that may depend on or be independent of loss of chromatin-remodeling function. These findings provide important insights into the molecular mechanisms underlying ASD caused by CHD8 missense mutations.
44	**NICHD**	**Nominated article:** Skaletski EC, Cardona SC, Travers BG. The relation between specific motor skills and daily living skills in autistic children and adolescents. *Front Integr Neurosci*. 2024 May 22;18:1334241. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Motor skill difficulties are common in autistic children and are related to daily living skills (DLS). This study explored how different motor skill tasks related to DLS in 90 6- to 17-year-old autistic individuals. The results demonstrated a significant relationship between fine/manual motor skills and DLS, even when cognition and sensory features were taken into accounts. The results also showed that cognitive factors significantly moderated the relationship between coordination/balance and DLS. These findings suggest that interventions targeting fine motor and balance, as well as cognition may enhance DLS in autistic youth.
45	**SAMHSA**	**Nominated article:** Symeonides C, Vacy K, Thomson S, Tanner S, Chua HK, Dixit S, Mansell T, O'Hely M, Novakovic B, Herbstman JB, Wang S, Guo J, Chia J, Tran NT,

		Hwang SE, Britt K, Chen F, Kim TH, Reid CA, El-Bitar A, Bernasochi GB, Delbridge LMD, Harley VR, Yap YW, Dewey D, Love CJ, Burgner D, Tang MLK, Sly PD, Saffery R, Mueller JF, Rinehart N, Tonge B, Vuillermin P; BIS Investigator Group; Ponsonby AL, Boon WC. Male autism spectrum disorder is linked to brain aromatase disruption by prenatal BPA in multimodal investigations and 10HDA ameliorates the related mouse phenotype. *Nat Commun*. 2024 Aug 7;15(1):6367. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This article highlights a potential mechanism for maternal exposure to bisphenol A (BPA), an endocrine-disrupting chemical commonly found in food packaging and postulated to have a potential link to autism development. Using an Australian longitudinal birth cohort study, the authors examined how prenatal BPA exposure, the function of an enzyme (aromatase) that changes hormones that development and maintain male characteristics into estrogens, hormones that regulate female characteristics and the impact on autism symptoms. Males with low aromatase activity were more likely to show problems reflected by the autism spectrum problems (ASP) scale. The authors validated these observational results by testing how BPA exposure impacted expression of aromatase in the human neuroblastoma cell line and within male mice. The authors conclude that their results "add to the growing evidence base of adverse neurodevelopmental effects from bisphenol and other manufactured chemical exposure during pregnancy."
46	**NIMH**	**Nominated article:** Vakilzadeh G, Maseko BC, Bartely TD, McLennan YA, Martínez-Cerdeño V. Increased number of excitatory synapsis and decreased number of inhibitory synapsis in the prefrontal cortex in autism. *Cereb Cortex*. 2024 May 2;34(13):121-128. [Read Abstract Here]
		Justification from IACC member who nominated article: Previous studies have shown an increase in excitatory pyramidal cells and a decrease in inhibitory parvalbumin+ chandelier interneurons in the prefrontal cortex of postmortem brains. However, how these changes affect the overall abundance of excitatory and inhibitory synapses in the cortex remains unclear. To address this, researchers quantified the number of excitatory and inhibitory synapses in the prefrontal cortex of 10 postmortem autistic brains and 10 non-autistic brains. Their findings revealed an increase in excitatory synapses in the upper cortical layers and a decrease in inhibitory synapses across all cortical layers in autistic brains compared to controls. These alterations in synapse numbers could lead to neuronal dysfunction and disturbed network connectivity in the prefrontal cortex in ASD. This study provides insights into the cellular and synaptic differences in the brains of autistic individuals.
47	**NIMH**	**Nominated article:** Xu G, Geng G, Wang A, Li Z, Liu Z, Liu Y, Hu J, Wang W, Li X. Three autism subtypes based on single-subject gray matter network revealed by semi-supervised machine learning. *Autism Res*. 2024 Oct;17(10):1962-1973. [Read Abstract Here]

		Justification from IACC member who nominated article: This study investigated the heterogeneity of autism by identifying subtypes based on individual gray matter brain networks, using a graph theory perspective. Researchers extracted and normalized single-subject gray matter networks, calculated their topological properties, and applied the HYDRA method to subtype patients based on these properties. Three distinct ASD subtypes were identified, exhibiting significant differences in brain regions such as the precentral gyrus, lingual gyrus, and middle frontal gyrus. Comparative analyses revealed notable variations in global and nodal properties between subtypes, along with clinical differences: subtype 1 had lower Verbal IQ and Performance/non-verbal IQ than subtype 3 but scored higher in ADOS-Communication and ADOS-Total compared to subtype 2. These findings underscore the distinct neural and behavioral characteristics of ASD subtypes, offering new insights into the neural mechanisms contributing to autism heterogeneity.
48	**NIMH**	**Nominated article:** Zepp L, Anagnostou E, Jones J, Nicolson R, Georgiades S, Lutchmeah S, Kelley E. Investigating the association between generalized anxiety symptoms and social and communication impairments of autistic youth. *J Can Acad Child Adolesc Psychiatry*. 2024 Nov;33(3):206-214. [Read Abstract Here]
		Justification from IACC member who nominated article: Research has shown that anxiety, including social anxiety, is linked to social and communication challenges in autistic populations. This study explored whether generalized anxiety disorder (GAD) symptoms were associated with social and communication traits in autistic youth. The sample included 253 autistic youth aged 8-18 (196 males, 57 females), divided into a child group (Grade 3-8) and an adolescent group (Grade 9-12). Hierarchical linear regression analyzed whether GAD symptoms predicted social communication scores (from the ADOS-2), controlling for sex, grade level, and expressive language ability. Correlation analyses revealed that in the child group, higher GAD symptoms were associated with fewer social communication challenges. However, after controlling for covariates, GAD symptoms did not predict social communication difficulties in either group. These findings suggest that different types of anxiety disorders may uniquely impact social and communication traits in autistic youth, warranting further research on anxiety subtypes and their effects.

Genetic and Environmental Factors

49	**NIEHS**	**Nominated article:** Alampi JD, Lanphear BP, MacFarlane AJ, Oulhote Y, Braun JM, Muckle G, Arbuckle TE, Ashley-Martin J, Hu JMY, Chen A, McCandless LC. Combined Exposure to Folate and Lead during Pregnancy and Autistic-Like Behaviors among Canadian Children from the MIREC Pregnancy and

		Birth Cohort. *Environ Health Perspect*. 2024 Oct;132(10):107003. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Lead is a well-known neurotoxicant with neurodevelopmental impacts associated with autism related outcomes. Despite reduced exposure, lead remains an environmental contaminant of concern particularly in marginalized and environmental health disparity communities and interventions to mitigate prenatal and early life lead exposure have an significant public health impact on child neurodevelopment. This study of Canadian mothers and children, who have similar lead and folate levels as in the U.S., found that associations between autistic-like behaviors (as measured by SRS) and maternal blood lead level were attenuated by adequate maternal plasma folate concentrations when compared to those with low folate during the third trimester. Previous research has found that adequate maternal folate levels reduce the likelihood of future autism diagnosis in children, and that folate supplementation can also reduce the association between other environmental contaminants (air pollution and pesticides) and likelihood of autism diagnosis. This study provides further evidence that adequate folate levels may help mitigate the impact of neurotoxic environmental chemical exposures that increase the likelihood of autism diagnosis and potential adverse neurodevelopmental outcomes.
50	**SAMHSA**	**Nominated article:** Lyall K, Westlake M, Musci RJ, Gachigi K, Barrett ES, Bastain TM, Bush NR, Buss C, Camargo CA Jr, Croen LA, Dabelea D, Dunlop AL, Elliott AJ, Ferrara A, Ghassabian A, Gern JE, Hare ME, Hertz-Picciotto I, Hipwell AE, Hockett CW, Karagas MR, Lugo-Candelas C, O'Connor TG, Schmidt RJ, Stanford JB, Straughen JK, Shuster CL, Wright RO, Wright RJ, Zhao Q, Oken E; program collaborators for Environmental influences on Child Health Outcomes; ECHO Components; Coordinating Center; Data Analysis Center; Person-Reported Outcomes Core; ECHO Awardees and Cohorts. Association of maternal fish consumption and ω-3 supplement use during pregnancy with child autism-related outcomes: results from a cohort consortium analysis. *Am J Clin Nutr*. 2024 Sep;120(3):583-592. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This research, funded by the National Institutes of Health's Environmental Influences on Child Health Outcomes program (https://echochildren.org/), found that prenatal consumption by mothers of fish lowered likelihood of autism diagnoses (odds ratio: 0.84; 95% confidence interval [CI]: 0.77, 0.92) and made it more likely children would not have social traits associated with autism as measured by the Social Responsiveness Scale, a commonly used tool for measuring social traits. Omega-3/fish oil supplement consumption did not show a similar outcome. Participants in the study included those enrolled in the 69-site ECHO program. Outcomes were similar whether the mother had fish less than once per week, 1-2 times per week or more than twice per week

		during pregnancy. The study shows the important potential of prenatal diet on autism-related outcomes and education about prenatal diet.
51	**NIMH**	**Nominated article:** Madley-Dowd P, Ahlqvist VH, Forbes H, Rast JE, Martin FZ, Zhong C, Barry CS, Berglind D, Lundberg M, Lyall K, Newschaffer CJ, Tomson T, Davies NM, Magnusson C, Rai D, Lee BK. Antiseizure medication use during pregnancy and children's neurodevelopmental outcomes. *Nat Commun*. 2024 Nov 15;15(1):9640. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This study evaluates the long-term neurodevelopmental likelihoods associated with in utero exposure to antiseizure medications (ASMs) using a cohort of 3,182,773 children from UK primary care data and Swedish nationwide registries, including 17,495 children exposed to ASMs during pregnancy. Findings confirm that prenatal exposure to valproate significantly increases the likelihood of autism, intellectual disability, and ADHD diagnoses compared to non-exposed children. Notably, exposure to topiramate doubled the likelihood of intellectual disability (95% CI: 1.23–4.98), while carbamazepine exposure increased the likelihood of autism (1.25 times; 95% CI: 1.05–1.48) and intellectual disability (1.30 times; 95% CI: 1.01–1.69). In contrast, lamotrigine exposure showed minimal association with neurodevelopmental diagnoses. These results highlight the need for careful consideration of ASM selection during pregnancy, emphasizing the importance of evaluating safer alternatives before conception when feasible. Further research is warranted to refine understanding and inform clinical practice.
52	**NIMH**	**Nominated article:** Sandin S, Yip BHK, Yin W, Weiss LA, Dougherty JD, Fass S, Constantino JN, Hailin Z, Turner TN, Marrus N, Gutmann DH, Sanders SJ, Christoffersson B. Examining Sex Differences in Autism Heritability. *JAMA Psychiatry*. 2024 Apr 17:e240525. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: The etiology of Autism Spectrum Disorders (ASD) is rooted primarily in genetic factors, but the reasons for its higher occurrence in males are not well understood. This research investigation examined the genetic basis of ASD and its differing prevalence between males and females. Using data from Swedish national health registers, the study analyzed non-twin siblings and cousins born between 1985 and 1998, totaling over a million individuals (1,047,649 individuals in 456,832 families (538,283 males [51.38%]; 509,366 females [48.62%]). The researchers estimated that genetic factors contribute to 87% of ASD cases in males and 76% in females. The results found no evidence that shared environmental factors play a role in ASD occurrence and suggest that the observed sex differences in ASD are largely due to genetic differences. As a single study future additional studies will further enhance our understanding on the interplay between genetics and environment in ASD.

53	**SAMHSA**	**Nominated article:** Tadesse AW, Ayano G, Dachew BA, Betts K, Alati R. Exposure to maternal cannabis use disorder and risk of autism spectrum disorder in offspring: A data linkage cohort study. *Psychiatry Res*. 2024 Jul;337:115971. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This was a retrospective cohort study led by Australian and Ethiopian academic authors "based on population-based, linked administrative data that included a sample of 259,150 mothers-offspring pairs, including all live births from 01 January 2003 to 31 December 2005 in New South Wales (NSW), Australia." The authors examined exposure to cannabis use disorder in the pre-pregnancy, prenatal and perinatal periods using cross-linked data from the Admitted Patients Data Collection (APDC) and outpatients visit (Mental Health Ambulatory data collection) (MH-AMB-DC)(with maternal health diagnoses) with the Australian Prenatal Data Collection (PDC) registry. The authors reported a three-fold increased risk of autism spectrum disorder in infants whose mothers were diagnosed with cannabis use disorder compared to non-exposed offspring. The authors examined and adjusted for potential confounders such as socioeconomic status and smoking. The authors note that male infants faced increased risk compared to female infants and note the need for additional research, including examination of the impacts of paternal behavioral health factors.
54	**NIMH**	**Nominated article:** Yin W, Pulakka A, Reichenberg A, Kolevzon A, Ludvigsson JF, Risnes K, Lahti-Pulkkinen M, Persson M, Silverman ME, Åden U, Kajantie E, Sandin S. Association between parental psychiatric disorders and risk of offspring autism spectrum disorder: a Swedish and Finnish population-based cohort study. *Lancet Reg Health Eur*. 2024 Apr 23;40:100902. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This study analyzed all children born in Sweden and Finland from 1997 to 2016, with diagnoses confirmed through national registers up to 2017. Researchers calculated adjusted hazard ratios (aHRs) and 95% confidence intervals (CIs) for ASD in children of parents with psychiatric disorders. Out of 2,505,842 children, 33,612 were diagnosed with ASD, with 20% having a parent with psychiatric disorders. The likelihood of autism was higher for children with fathers or mothers with psychiatric disorders, and even higher when both parents had psychiatric disorders. The likelihood further increased with the number of different psychiatric disorders in parents. This study underscores that psychiatric disorders in parents, especially when both are affected, significantly raise the likelihood of autism in children.
		Interventions
55	**Paul Wang**	**Nominated article:**

		Anderson C, Hochheimer S, Warren Z, Butter E, Hyman SL, Wang H, Wallace L, Levato L, Martin R, Stephenson KG, Norris M, Jacqueline W, Smith T, Johnson CR. Comparative effectiveness trial: Modular behavior approach for young autistic children compared to comprehensive behavioral intervention. *Autism Res*. 2024 Nov;17(11):2430-2446. [Read Abstract Here]
		Justification from IACC member who nominated article: This 24-week single-blind trial compared a modular approach for young autistic children (MAYAC) with comprehensive behavioral intervention treatment as usual (CBI, TAU). The trial involved children ages 18–60 months and aimed to assess the effectiveness of MAYAC, which started with 5 hours of weekly intervention (1 hour of parent training and 4 hours of direct therapy focusing on social communication and engagement) and could increase to 10 hours based on child progress and parental input. In contrast, CBI was delivered for ≥15 hours per week. Outcome measures included the Vineland Adaptive Behavior Scales (VABS), Ohio Autism Clinical Improvement Scale - Autism Severity (OACIS - AS), and the Pervasive Developmental Disorder Behavior Inventory - Parent (PDDBI-P). Fifty-six children were randomized into the study. Both MAYAC and CBI showed significant improvements on the VABS from baseline to week 24 ($p < 0.0001$). A noninferiority test showed that MAYAC was not inferior to CBI on the VABS ($p = 0.0144$). For the OACIS-AS, 48.0% of MAYAC and 45.5% of CBI participants were classified as treatment responders, with no significant changes on the PDDBI-P for either group. Both groups showed high treatment fidelity (>95%) and parent satisfaction. These findings suggest that MAYAC may serve as a viable alternative to CBI for some young autistic children and their families.
56	**NIMH**	**Nominated article:** Bedford R, Green J, Gliga T, Jones EH, Elsabbagh M, Pasco G, Wan MW, Slonims V, Charman T, Pickles A, Johnson MH; BASIS Team. Parent-mediated intervention in infants with an elevated likelihood for autism reduces dwell time during a gaze-following task. *Autism Res*. 2024 Nov;17(11):2346-2354. [Read Abstract Here]
		Justification from IACC member who nominated article: This study examined the impact of the iBASIS-VIPP intervention on an eye-tracking measure of social attention in infants at elevated familial risk for autism. Fifty-four infants were randomly assigned to either the intervention or a no-intervention group, with gaze following behavior assessed at 15 months. Results from a secondary intention-to-treat analysis showed that the intervention group had significantly reduced dwell time to the referent of another person's gaze ($\beta = -0.32$, $p = 0.03$) at the treatment endpoint. While a previous study found a transient trend toward lower language scores at the same endpoint, these results suggest that cognitive markers like gaze following can be sensitive to intervention effects. The study advocates for including both cognitive and behavioral measures in future intervention trials to better understand the mechanisms behind intervention outcomes.

57	**ED**	**Nominated article:** Chung EY, Kuen-Fung Sin K, Chow DH. Effectiveness of Robotic Intervention on Improving Social Development and Participation of Children with Autism Spectrum Disorder - A Randomised Controlled Trial. *J Autism Dev Disord*. 2024 Jan 17. [Read Abstract Here]
		Justification from IACC member who nominated article: Through technological advancements, the field has observed new and innovative ways to support learners with autism. In this randomized controlled trials, 60 children with autism were randomly assigned to three groups: robotic intervention, human program, and control group focusing on testing the efficacy of a social communication intervention. These researchers found that the use of this technology can create engaging, predictable, and accessible learning environments that can be beneficial for children with autism. Authors suggest that these findings promote generalization to real-life contents and promotion of inclusive opportunities.
58	**NIMH**	**Nominated article:** Gulsrud AC, Shih W, Paparella T, Kasari C. Comparative efficacy of an early intervention "parent and me" program for infants showing signs of autism: The Baby JASPER model. *Infant Behav Dev*. 2024 Apr 27;76:101952. [Read Abstract Here]
		Justification from IACC member who nominated article: Despite significant progress in early autism detection, there are still few proven interventions for children under two years old. Caregiver-mediated interventions may be particularly effective because they support both the child and family. This study expands on existing research by enrolling a large group of infants (80 infants total, between the ages of 12-22 months old) showing early traits of autism into a randomized controlled intervention program. Infants and parents participated in a group-based program using a standard early childhood curriculum. Additionally, families were randomly assigned to receive either parent-mediated Joint Attention Symbolic Play Engagement and Regulation (JASPER) training or psychoeducation. Over an 8-week period, infants in both groups made significant improvements in social communication, play, and cognition, with an average increase of over 10 points in developmental quotient (DQ) and improvements in standardized social communication and play measures. These gains were maintained at a 2-month follow-up. The group that received JASPER training showed increased child-initiated joint engagement and play during interactions with their parents, while the psychoeducation group showed increased joint attention during a standardized assessment. This study highlights the potential of early interventions to achieve positive outcomes for young children and their families.
59	**NIMH**	**Nominated article:** Guzick AG, Schneider SC, Kook M, Rose Iacono J, Weinzimmer SA, Quast T, Olsen SM, Hughes KR, Jellinek-Russo E, Garcia AP, Candelari A, Berry LN, Goin-Kochel RP, Goodman WK, Storch EA. Parent-Led Cognitive Behavioral Teletherapy for Anxiety in Autistic Youth: A Randomized Trial

		Comparing Two Levels of Therapist Support. *Behav Ther*. 2024 May;55(3):499-512. [Read Abstract Here]
		Justification from IACC member who nominated article: In this study, parent-led cognitive behavioral therapy (CBT) emerged as a promising treatment for anxiety disorders in autistic youth aged 7 to 13 years. The research compared two formats of CBT delivery: one with minimal therapist contact (four 30-minute telehealth calls) and another with standard therapist contact (ten 60-minute telehealth calls). Both groups showed significant reductions in anxiety, functional impairment, and autism-related features over the 12-week therapy period, with no significant differences between the two formats. Participants and their families reported high satisfaction with the interventions, with slightly higher ratings for the standard-contact CBT. Responder rates, indicating treatment success, were high across both groups at post-treatment and 3-month follow-up. Importantly, low-contact CBT was found to be significantly more cost-effective than standard-contact CBT, offering potential economic benefits without compromising therapeutic outcomes.
60	**ED**	**Nominated article:** Harbin SG, Hugh ML, Tagavi D, Bravo A, Joshi M, Kiche S, Michael OG, Locke J. In an Imperfect World: Barriers and Facilitators to Educators' Evidence-Based Practice Use for Elementary-Aged Autistic Students in Inclusive Settings. *J Autism Dev Disord*. 2024 Sep 11. [Read Abstract Here]
		Justification from IACC member who nominated article: With emphasis on the promotion of effective inclusion models for children with autism in classrooms, this article uses the Consolidated Framework for Implementation Research to investigate barriers and facilitators to such implementation. This included inquiry from 86 educators from 50 schools and 24 districts, then 81 educators from 49 schools and 23 districts completed a follow up interview. The findings of this research included barriers such as limited time and resources for planning and implementing EBPs, limited training, communication challenges across team members, and unique classroom situations. Using these findings, the field can move forward to make positive impacts on promoting meaningful inclusive opportunities by promoting easily accessing EBP practices with embedded training to make implementation more feasible.
61	**Sam Crane**	**Nominated article:** Hersh L, Dwyer P, Kapp SK, Shevchuk-Hill S, Gurba AN, Kilgallon E, Mair APA, Chang DS, Rivera SM, Gillespie-Lynch K. Community Member Views on Autism Intervention: Effects of Closeness to Autistic People with Intellectual Disabilities And Nonspeaking Autistic People. *Autism Adulthood*. 2024 Sep 16;6(3):253-271. [Read Abstract Here]
		Justification from IACC member who nominated article: This study investigates the perspectives of both autistic and non-autistic members of the autistic and autism communities on neurodiversity, the social and medical models of disability, autism intervention goals, and

		causal attributions of disability. It explores how these views are influenced by close relationships with autistic individuals with intellectual disabilities (ID) and nonspeaking autistic (NSA) individuals. A total of 504 participants (278 autistic, 226 non-autistic) completed an online survey assessing theoretical models and intervention goals. The results reveal broad consensus on intervention goals, with strong opposition to normalization goals, and support for well-being, societal reform, supportive environments, and adaptive skills. Autistic participants were more supportive of societal reform and supportive environments compared to non-autistic participants, and they also showed stronger support for the neurodiversity movement (NDM) and less support for the medical model. Those with close relationships to individuals with ID rated adaptive skills goals more highly. Additionally, those without close relationships to autistic people with ID viewed their challenges as more socially/environmentally influenced, while no such difference was found among those with close relationships to autistic people with ID. The findings suggest that NDM-aligned intervention goals are seen as appropriate for all autistic individuals, including those with ID and NSA individuals, and provide insights into potential reforms for autism interventions that move away from unpopular normalization goals.
62	**NIMH**	**Nominated article:** Kaur I, Kamel R, Sultanik E, Tan J, Mazefsky CA, Brookman-Frazee L, McPartland JC, Goodwin MS, Pennington J, Beidas RS, Mandell DS, Nuske HJ. Supporting emotion regulation in children on the autism spectrum: co-developing a digital mental health application for school-based settings with community partners. *J Pediatr Psychol*. 2024 Oct 23:jsae078. [Read Abstract Here]
		Justification from IACC member who nominated article: This study focuses on KeepCalm, a digital mental health application designed to help address challenging behaviors and emotion dysregulation in children on the autism spectrum. The app integrates wearable biosensing and provides support for teams managing these behaviors. Following a user-centered design framework, the development process involved workshops, interviews, a systematic review, and an Expert Advisory Board. During five testing cycles, 73 participants rated the app as highly acceptable, feasible, and user-friendly. Qualitative feedback highlighted the app's ability to help teachers recognize triggers, prevent behavioral episodes, improve communication with parents, and equip families with strategies for home use. Key learnings included the importance of making the app enjoyable and easy to use, focusing on novel features like behavioral pattern and stress detection, and offering in-person training to maximize feasibility. The findings are being used to guide broader feasibility testing and gather preliminary data on the app's effectiveness in reducing challenging behaviors and supporting emotion regulation.
63	**NIMH**	**Nominated article:**

		Pope L, Light J, Laubscher E. The Effect of Naturalistic Developmental Behavioral Interventions and Aided AAC on the Language Development of Children on the Autism Spectrum with Minimal Speech: A Systematic Review and Meta-analysis. *J Autism Dev Disord*. 2024 Jun 7. [Read Abstract Here]
		Justification from IACC member who nominated article: Researchers conducted a systematic review and meta-analysis to evaluate the impact of integrating augmentative and alternative communication (AAC) into naturalistic developmental behavioral interventions (NDBIs) for children with autism and minimal speech. Analyzing 29 studies, including both single-case and group designs, they found that while NDBIs alone strongly supported language development, incorporating AAC significantly enhanced language outcomes. Only three studies directly compared NDBIs with and without AAC, but the findings suggest that combining these approaches yields superior results. This highlights the potential benefits of integrating AAC systems into NDBI procedures to support language development in minimally speaking autistic children.
64	**HRSA**	**Nominated article:** Rancaño KM, Curtin C, Must A, Bandini LG. Does food selectivity drive differences in dietary resemblance between children with intellectual disabilities and typical development? *Appetite*. 2025 Jan 1;204:107744. Epub 2024 Oct 30. [Read Abstract Here]
		Justification from IACC member who nominated article: This paper examines the extent to which child dietary intake resembles the intake of their parents including both mothers and fathers. This cross-sectional secondary analysis of data collected through the Children's Mealtime Study (CHIMES) included 102 parent-child dyads. The study found that children with an intellectual disability (ID) and autism had a lower dietary resemblance to their parents than did typically developing children or children with an intellectual disability. These findings suggest that parents of children with both ID and autism may have less influence on what their child eats than on typically developing children or children with an intellectual disability. Food selectivity may lead children to follow different dietary intake behaviors than their parents, despite their shared food environment and the influence of parents on child diet.
65	**Dena Gassner**	**Nominated article:** Sandbank M, Pustejovsky JE, Bottema-Beutel K, Caldwell N, Feldman JI, Crowley LaPoint S, Woynaroski T. Determining Associations Between Intervention Amount and Outcomes for Young Autistic Children: A Meta-Analysis. *JAMA Pediatr*. 2024 Jun 24:e241832. [Read Abstract Here]
		Justification from IACC member who nominated article: Researchers analyzed data from 144 studies involving 9,038 young autistic children to determine if the amount of early childhood autism intervention (daily intensity, duration, cumulative intensity) was associated with improved development. The analysis found no significant association between the amount of intervention and

		developmental outcomes. This suggests that intensifying early childhood interventions does not necessarily increase their benefits, and practitioners should consider what amounts are developmentally appropriate.
66	**ED**	**Nominated article:** Siller M, Landa R, Vivanti G, Ingersoll B, Jobin A, Murphy M, ... & Morgan L. Bridging priorities between naturalistic developmental behavioral interventions for autism and educational practice in inclusive early childhood education. *Topics in Early Childhood Special Education.* 2024 Nov 29: 44(1), 45-57. https://doi.org/10.1177/02711214231213285
		Justification from IACC member who nominated article: This article explores the integration of Naturalistic Developmental Behavioral Interventions (NDBI) with inclusive Early Childhood Education (ECE) practices for children with autism. This study focuses on the merging of the two discussing the overlaps and divergences between these two frameworks and discussing the opportunities to bridge gaps through shared priorities, implementation science, and community-academic partnerships. This includes discussion of shared strategies for teachers and classrooms in efforts to scale up inclusion models. The gaps and strengths of both frameworks were discussed with goals of significantly improving high-quality inclusive education for children with autism.

Services and Supports

67	**NIMH**	**Nominated article:** Benevides TW, Jaremski JE, Williams ED, Song W, Pham HH, Shea L. Racial and Ethnic Disparities in Community Mental Health Use Among Autistic Adolescents and Young Adults. *J Adolesc Health*. 2024 Jun;74(6):1208-1216. [Read Abstract Here]
		Justification from IACC member who nominated article: This cohort study investigated mental health (MH) conditions and access to community MH services among transition-age autistic youth (TAYA), focusing on Black, indigenous, and other diverse communities. Using Medicare-Medicaid data from 2012, the study found that compared to White TAYA, Black, Asian/Pacific Islander, and Hispanic TAYA were less likely to have diagnoses of substance-use, depressive, anxiety, ADHD, or PTSD. They were also less likely to have accessed community MH services in the past year, even after accounting for various factors. Factors enabling greater community MH service use included dual enrollment in Medicare and Medicaid, and longer enrollment in specific Medicaid waivers. The study highlights disparities in MH diagnosis and service access among diverse TAYA populations, suggesting a need for improved service delivery and equitable coverage across different demographic groups.
68	**NIMH**	**Nominated article:** Brusilovskiy E, Salzer MS, Pomponio Davidson A, Feeley C, Pfeiffer B. Using GPS and Self-Report Data to Examine the Relationship Between

		Community Mobility and Community Participation Among Autistic Young Adults. *Am J Occup Ther*. 2024 May 1;78(3):7803205160. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This study investigates the connection between community participation and community mobility among autistic young adults. Using GPS data and self-reports from 63 participants in Philadelphia, the study found significant links between various aspects of community mobility and initial levels of community participation. However, changes in mobility over time did not correspond to changes in participation. These findings underscore the importance of addressing mobility barriers to enhance community engagement for autistic individuals, suggesting tailored interventions and policies could improve their quality of life and health outcomes.
69	**SSA**	**Nominated article:** Ferguson EF, Barnett ML, Goodwin JW, Vernon TW. "There is No Help:" Caregiver Perspectives on Service Needs for Adolescents and Adults with Profound Autism. *J Autism Dev Disord*. 2024 Jul 4. [Read Abstract Here]
		Justification from IACC member who nominated article: The underrepresentation of individuals with profound autism (who require 24/7 access to care) in autism research has resulted in limited knowledge about their service needs and a lack of evidence-based practices tailored to those needs. This study explored caregiver perspectives on service needs, barriers to accessing care, and treatment priorities to guide treatment development and improvement of service delivery. These insights are crucial for improving the accessibility and quality of clinical care.
70	**SSA**	**Nominated article:** Ferguson EF, Clarke E, Schisterman N, Lord C. Family Experiences with Supplemental Social Security Income and Legal Guardianship for Autistic Adults: A Mixed-Methods Study. *Res Autism Spectr Disord*. 2025 Jan;119:102522. Epub 2024 Nov 27. [Read Abstract Here]
		Justification from IACC member who nominated article: Family interactions with the Supplemental Social Security Income (SSI) program and the decision to pursue legal guardianship are poorly understood in services research for autistic adults. Findings from this study offer new perspectives on experiences associated with pursuing SSI benefits and legal guardianship for autistic adults, including similarities and key differences in these procedures. Findings also provide suggestions for future research to improve coordination and supports for families throughout adulthood.
71	**NICHD**	**Nominated article:** Klitzman R, Bezborodko E, Chung WK, Appelbaum PS. Parents' views of benefits and limitations of receiving genetic diagnoses for their offspring. *Child Care Health Dev*. 2024 Jan;50(1):e13212. [Read Abstract Here]
		Justification from IACC member who nominated article:

		Recent professional guidelines recommend including genetic testing in the evaluation of individuals with autism and/or intellectual disabilities. Researchers interviewed parents to describe their experiences and perceptions of genetic testing on their children with intellectual disability and of their response to the genetic testing results. The parents perceived benefits to genetic testing related to understanding the diagnosis, coping with the emotional impact, and planning for the future. The parents' perceived limitations included a lack of medical treatments related to the genetic diagnosis, a sense of finality, and heightened uncertainties that can in turn increase anxieties. These findings may inform providers in assisting individuals and families considering genetic testing about the potential pros and cons.
72	**NIMH, HRSA**	**<u>Nominated article:</u>** Nuske HJ, Smith T, Levato L, Bronstein B, Sparapani N, Garcia C, Castellon F, Lee HS, Vejnoska SF, Hochheimer S, Fitzgerald AR, Chiappe JC, Nunnally AD, Li J, Shih W, Brown A, Cullen M, Hund LM, Stahmer AC, Iadarola S, Mandell DS, Hassrick EM, Kataoka S, Kasari C. Building Better Bridges: Outcomes of a Community-Partnered New School Transition Intervention for Students on the Autism Spectrum. *J Autism Dev Disord*. 2024 Jun 12. [Read Abstract Here]
		<u>Justification from IACC member who nominated article:</u> **NIMH**: Transitioning to a new school can be particularly difficult for students on the autism spectrum. And to date, we lack well-established interventions to help these students and their families navigate school transitions. To address this problem, researchers developed Building Better Bridges (BBB), a coaching program for caregivers that includes training on school communication, educational rights, advocacy, and child preparation. In this study, investigators followed 170 participants from diverse, under-resourced communities, where BBB students (n=83) were compared to a resource-only group n=87). The results showed that caregivers and teachers who participated in BBB reported more positive transitions for the students, suggesting that this low-cost intervention can significantly aid families and students facing challenging school transitions. **HRSA**: This study was a randomized controlled trial of an intervention, Building Better Bridges (BBB), designed using Community Partnered Participatory Research to support families and teachers of students transitioning to elementary and secondary school during this critical period. BBB is a caregiver coaching intervention that includes training on effective school communication, educational rights, advocacy, and child preparation strategies. This multi-site randomized trial was conducted in racially and ethnically diverse, under-resourced communities, with 170 caregivers and 128 teachers enrolled over two school years. Caregivers and teachers in BBB rated students' transitions to the new classroom as more positive, relative to the comparison group. Results suggest this low-cost intervention can improve the transition process for families and students at high risk of poor transitions.

73	**HRSA**	**Nominated article:** Rast JE, Koffer Miller KH, Bromberg J, Ventimiglia J, Anderson KA, Shea LL. Changes in Child Health Care, Health, and Caregiver Mental Health During the COVID-19 Pandemic in Children with Autism and Special Health Care Needs. *Matern Child Health J*. 2024 Nov 22. [Read Abstract Here]
		Justification from IACC member who nominated article: The purpose of this study was to examine changes in child health care utilization, child health, and caregiver and household health among children with autism and children with special health care needs (CSHCN) pre-pandemic compared to early pandemic years. The study used 2018-2021 data from the National Survey of Children's Health, including 4,136 autistic children and 29,592 CSHCN without autism, and found that children with autism experienced disruptions to health care during the COVID-19 pandemic. As a group with great health care and service needs, disruptions could be overly impactful to health trajectories, strengthening the need for continuous, accessible care. These findings have implications for long-term emergency preparedness, and the importance of including disability inclusive policies in planning efforts to ensure the most vulnerable groups retain health care access as needed.
74	**HRSA**	**Nominated article:** Shea L, Villodas ML, Ventimiglia J, Wilson AB, Cooper D. Foster Care Involvement Among Youth With Intellectual and Developmental Disabilities. *JAMA Pediatr*. 2024 Apr 1;178(4):384-390. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This cross-sectional study involved all individuals with intellectual and developmental disabilities 21 years and younger enrolled in Medicaid through foster care in 2016 via data from Transformed Medicaid Statistical Information System Analytic files for all 50 states and Washington, DC. It found that the total of 39,143 youth with intellectual and developmental disabilities in foster care has increased compared to previous research, which has major implications for the foster care system and its need to address the unique needs of these youth. Black youth and females were found to face a higher risk of foster care involvement compared to White youth or males, with the likelihood of foster care involvement increasing with age. This means that young Black girls with intellectual and developmental disabilities have a heightened chance of moving through the system and experiencing vulnerabilities.
75	**CDC**	**Nominated article:** Van Dyke J, Rosenberg SA, Crume T, Reyes N, Alexander AA, Barger B, Fitzgerald R, Hightshoe K, Moody EJ, Pazol K, Rosenberg CR, Rubenstein E, Wiggins L, DiGuiseppi C. Child Age at Time of First Maternal Concern and Time to Services Among Children with Autism Spectrum Disorder. *J Dev Behav Pediatr*. 2024 Jul-Aug 01;45(4):e293-e301. [Read Abstract Here] [Free Full Text Article]

		Justification from IACC member who nominated article: This paper explored factors related to child's age at time of mother's first concerns about child's development and subsequent time to service initiation among children with autism. Parity, gestational age, and child health and behavior were associated with child age at first maternal concern. Knowledge of child development in multiparous mothers may allow them to recognize potential concerns earlier, suggesting that first time parents may benefit from enhanced education about normal development. Race/ethnicity was not associated with child's age when mothers recognized potential developmental problems; hence, it is unlikely that awareness of ASD traits causes racial/ethnic disparities in initiation of services.
76	**HRSA**	**Nominated article:** Wallis KE, Kennelly A, Wozniak SN, Craig S, Flaherty CM, Cacia J, Christiansen A, Cordero L, Ortiz P, Kellom KS, Stefanski K; DBPNet Steering Committee. Disparities in Telehealth Uptake for Developmental-Behavioral Pediatric Assessments by Preferred Family Language: A Developmental Behavioral Pediatrics Research Network Study. *J Dev Behav Pediatr*. 2024 Jul-Aug 01;45(4):e378-e383. [Read Abstract Here]
		Justification from IACC member who nominated article: This study looks at rates of telehealth utilization and visit completion by preferred family language among patients seen for Developmental-Behavioral Pediatric (DBP) assessments during the COVID-19 pandemic. A descriptive chart review used electronic health record data at 4 academic DBP practices examined visits for patients up to 5 years seen for new-patient appointments between April 2020 and April 2021. A total of 3241 visits were scheduled in this timeframe; 48.2% were for in-person and 51.8% were for telehealth. English-speaking families had 2.10 times the odds of being scheduled for new DBP evaluations by telehealth compared to families with a preferred language other than English. This enforces that language access, through translators or other language services, is critical to ensure equity in telehealth usage and timely diagnosis.
77	**NIMH**	**Nominated article:** Yu AP, Zeng W, Lopez K, Magaña S. Reducing Depressive Symptoms Among Latina Mothers of Autistic Children: A Randomized Controlled Trial. *Am J Intellect Dev Disabil*. 2024 Jul 1;129(4):294-307. [Read Abstract Here]
		Justification from IACC member who nominated article: This study explored how a culturally tailored parent education program, using a peer-to-peer mentoring model, impacted depressive symptoms among Latina mothers of autistic children. In a randomized waitlist-control study across two sites with 109 mother-child pairs, the intervention aimed to boost mothers' self-efficacy and use of effective strategies. Depressive symptom scores (CES-D) were measured at baseline, post-intervention (Time 2), and 4 months later (Time 3). Results indicate that mothers in the intervention group experienced a

		significant reduction in depressive symptoms at Time 2, and this improvement was sustained at Time 3 with moderate effect sizes. The intervention showed consistent benefits across both study sites, suggesting that "Parents Taking Action" effectively reduces depressive symptoms in this population.
		Lifespan
78	**HRSA**	**Nominated article:** Anderson JT, Roth JD, Rosenau KA, Dwyer PS, Kuo AA, Martinez-Agosto JA. Enhancing multi-site autism research through the development of a collaborative data platform. *Autism Res*. 2024 Jul;17(7):1322-1327. [Read Abstract Here]
		Justification from IACC member who nominated article: This paper describes the Infrastructure for Collaborative Research (ICR), developed by AIR-P to establish standards on data collection practices in autism data repositories. The ICR will strive to encourage inter-site collaboration, amplify autistic voices, and widen accessibility to data. The ICR is staged as a three-tiered framework consisting of (1) a request for proposals system, (2) a REDCap-based data repository, and (3) public data dashboards to display aggregate de-identified data. Coupled with a review process including autistic and non-autistic researchers, this framework aims to propel the implementation of equitable autism research, enhance standardization within and between studies, boost transparency and disseminate findings broadly.
79	**SSA**	**Nominated article:** Anderson KA, Radey M, Rast JE, Roux AM, Shea L. The Economic Impacts of COVID-19 on Autistic Children and Their Families. *J Autism Dev Disord*. 2024 Feb 23. [Read Abstract Here]
		Justification from IACC member who nominated article: Researchers sought to explore how autistic children faired before and during the pandemic when compared to the broader group of children with special health care needs (SHCN), and those without SHCN as it relates to economic hardship and safety net program utilization. Notably, it spotlights the importance and reliance of safety net program utilization among children, as it specifically examines differences across utilization of cash assistance, including Temporary Assistance for Needy Families (TANF) and Supplemental Security Income (SSI), as well as Supplemental Nutrition Assistance Program (SNAP) and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and purposefully considers impacts on children with autism. Findings included, a) decreased risk of medical hardship, foregone work, and multiple hardship during the pandemic, when compared to before the pandemic; and b) increased food insecurity risks, c) higher rates of safety program utilization during COVID when compared to children with no SCHN.
80	**NIMH**	**Nominated article:**

		Benevides TW, Cook B, Klinger LG, McLean KJ, Wallace GL, Carey ME, Lee WL, Ventimiglia J, Schiff LD, Shea L. Brief Report: Under-Identification of Symptomatic Menopause in Publicly-Insured Autistic People. *J Autism Dev Disord*. 2024 Aug 29. [Read Abstract Here] **Justification from IACC member who nominated article:** This study investigated symptomatic menopause and associated factors in autistic individuals, a topic previously unexplored in large samples. Researchers analyzed data from autistic females aged 35–70 years enrolled for 10 or more months in Medicare and/or Medicaid between 2014 and 2016 (n = 26,904), excluding those with gender dysphoria. Symptomatic menopause was identified in approximately 4% of publicly insured autistic females aged 46–70 years. Logistic regression analyses revealed that intellectual disability was associated with a lower likelihood of symptomatic menopause, while Medicare or dual enrollment was linked to a higher likelihood. Compared to a non-symptomatic reference group, individuals with symptomatic menopause had significantly higher rates of ADHD, anxiety and depressive disorders, headaches/migraines, altered sensory and sexual function, and sleep disturbances. These findings highlight the need for improved support in discussing menopausal symptoms and co-occurring conditions with primary care providers, especially for individuals who face challenges in self-reporting symptoms. Further research is warranted to examine the impact of healthcare coverage on symptom identification and management.
81	**NIMH**	**Nominated article:** Brady MJ, Jenkins CA, Gamble-Turner JM, Moseley RL, Janse van Rensburg M, Matthews RJ. "A perfect storm": Autistic experiences of menopause and midlife. *Autism*. 2024 Jun;28(6):1405-1418. [Read Abstract Here] [Free Full Text Article] **Justification from IACC member who nominated article:** This study examined how autistic individuals experience menopause and identified potential support and information needs during this life stage, which previous research suggests can be particularly challenging. Researchers collaborated with Autistic Community Research Associates to conduct four focus groups and eight interviews with 24 autistic participants from Canada and the United Kingdom. Using reflexive thematic analysis, the study identified four key themes: the complexity and intensity of menopausal symptoms, the convergence of life experiences and adversity at midlife, the significance of knowledge and connection, and barriers to accessing support and care. While the findings may not generalize to all autistic individuals and highlight the need for greater inclusivity, they provide valuable insights into shared experiences that could inform more tailored and effective interventions.
82	**NIMH**	**Nominated article:** Cooper D, Frisbie S, Wang S, Ventimiglia J, Gibbs V, Love AMA, Mogavero M, Benevides TW, Hyatt JM, Hooven K, Basketbill I, Shea L. What do we know about autism and policing globally? Preliminary findings from an

		international effort to examine autism and the criminal justice system. *Autism Res*. 2024 Oct;17(10):2133-2143. [Read Abstract Here]
		Justification from IACC member who nominated article: This study, conducted by the Global Autism and Criminal Justice Consortium, explored the reasons behind higher rates of police contact among autistic individuals across different international contexts, including North America, Scandinavia, Europe, and Oceania. Using the Global Criminal Justice Survey, researchers examined the frequency and types of police interactions within the last five years, comparing respondents with and without police contact. Findings revealed that nearly half of autistic individuals had interacted with police, with those having a history of police contact generally being older, more educated, and more likely to have co-occurring mental health or developmental disorders. The most common interactions involved noncriminal situations, such as welfare checks, traffic incidents, wandering, and autism-related behaviors, followed by situations where autistic individuals reported crimes committed against them. These results highlight the need for further research and policy interventions to better address the specific challenges autistic individuals face within the criminal justice system.
83	**ED**	**Nominated article:** Dwyer P, Gurba AN, Kapp SK, Kilgallon E, Hersh LH, Chang DS, Rivera SM, Gillespie-Lynch K. Community views of neurodiversity, models of disability and autism intervention: Mixed methods reveal shared goals and key tensions. *Autism*. 2024 Sep 18:13623613241273029. [Read Abstract Here]
		Justification from IACC member who nominated article: In this article, authors offer insight around the neurodiversity movement, disability models, and autism interventions through a mixed-methods approach with autistic and non-autistic individuals. 504 autistic and autism community members (278 autistic, 226 non-autistic), including 100 researchers (41 autistic), 122 professionals (35 autistic), and 162 parents/caregivers (53 autistic) participated in this qualitative investigation. These findings focus on the importance of individualized supports and intervention and the need for clear, neurodiversity-affirming approaches that respect individual autonomy. This promotes a focus on individualized supports common with contemporary calls for equity and student-centered learning. It further suggests future research for a paradigm shift that can transform educational practice to support a more inclusive experience for all students.
84	**NIMH**	**Nominated article:** Hedley D, Williams ZJ, Deady M, Batterham PJ, Bury SM, Brown CM, Robinson J, Trollor JN, Uljarević M, Stokes MA. The Suicide Assessment Kit-Modified Interview: Development and preliminary validation of a modified clinical interview for the assessment of suicidal thoughts and behavior in autistic adults. *Autism*. 2024 Oct 19:13623613241289493. [Read Abstract Here]
		Justification from IACC member who nominated article:

		This study evaluated the psychometric validity of the Suicide Assessment Kit-Modified Interview (SAK-MI), a clinical tool designed to assess suicide risk in autistic adults without intellectual disability. The study involved 98 autistic participants (58% women, 34% men, 7% nonbinary; mean age 41.65, SD 12.96) and demonstrated that a four-item negative affect score from the SAK-MI showed adequate reliability and good convergent validity with related mental health and suicide assessment measures. Ordinal SAK-MI categories displayed strong predictive power for identifying individuals at "above low risk" for future suicide attempts with observed sensitivity and specificity values of 0.750 and 0.895, respectively. These findings suggest that the SAK-MI is a reliable and valid tool for assessing suicidal thoughts and behavior in this population. Future research will examine its utility in clinical settings and broader autistic populations.
85	**SSA**	**Nominated article:** Lee NR, McQuaid GA, Grosman HE, Jayaram S, Wallace GL. Vocational Outcomes in ASD: An Examination of Work Readiness Skills as well as Barriers and Facilitators to Employment Identified by Autistic Adults. *J Autism Dev Disord*. 2024 Feb;54(2):477-490. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Little is known about work readiness skills among autistic adults. This study sought to address this by examining work readiness skills and their relation to vocational outcomes among 281 autistic young adults. It also examined perceived barriers and facilitators to employment as articulated by a subset of autistic adults. Results revealed a variegated work readiness profile. Stronger work readiness skills (particularly work style/adaptability) were associated with more favorable vocational outcomes.
86	**NIMH**	**Nominated article:** Moseley RL, Hedley D, Gamble-Turner JM, Uljarević M, Bury SM, Shields GS, Trollor JN, Stokes MA, Slavich GM. Lifetime stressor exposure is related to suicidality in autistic adults: A multinational study. *Autism*. 2024 Dec 10:13623613241299872. [Read Abstract Here]
		Justification from IACC member who nominated article: Researchers explored the relationship between lifetime stressors and suicidal thoughts and behaviors (STB) in autistic adults, focusing on gender differences. Using data from 226 autistic individuals in the UK and Australia, the study found that men experienced more legal/crime-related stressors, while women encountered more relationship-based and humiliation-related stressors, often perceiving them as more severe. The study revealed distinct predictors of STB: for men, the loss of loved ones was most strongly linked to STB, while for women, physically dangerous stressors and fewer entrapment-related stressors (related to exploitative or emotionally abusive situations) were key. These findings highlight the importance of assessing lifetime stressor exposure to understand suicide risk in autistic individuals, with further research needed to explore underlying mechanisms.

87	**NIMH**	**Nominated article:** Shea L, Roux A, Wilson AB, Ventimiglia J, Carlton C, Lee WL, Cooper D, Frisbie S. Colliding public health priorities: A call to improve the understanding of autistic individuals utilizing housing assistance. *PLoS One*. 2024 Dec 20;19(12):e0315008. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: For the first time, researchers linked the 2008 and 2016 Medicaid data set with U.S. Department of Housing and Urban Development (HUD) records to examine housing support utilization among autistic individuals in the U.S. The analysis revealed a 70% increase in HUD-assisted autistic Medicaid enrollees over this period, with 10.4% of autistic enrollees receiving HUD support in 2016. These individuals were more likely to be Black/African American, uninsured privately, and living in urban areas. Notably, 3% of autistic individuals experienced homelessness prior to entering HUD programs. Autistic individuals most often accessed the Housing Choice Voucher Program and few accessed the Multifamily Section 811 Supportive Housing for Persons with Disabilities. This was the first study to examine patterns in the utilization of HUD programs by autistic individuals and the findings suggested that autistic individuals are increasingly accessing HUD assistance and most often, not through disability-specific programs.
88	**NIMH**	**Nominated article:** Smith JV, McQuaid GA, Wallace GL, Neuhaus E, Lopez A, Ratto AB, Jack A, Khuu A, Webb SJ, Verbalis A, Pelphrey KA, Kenworthy L. Time is of the essence: Age at autism diagnosis, sex assigned at birth, and psychopathology. Autism. 2024 May 9:13623613241249878. [Read Abstract Here]
		Justification from IACC member who nominated article: Prior research has demonstrated that girls and women are diagnosed with autism later than boys and men. And among those with a late life ASD diagnosis, girls and women are more likely to have higher levels of anxiety and depression. This study examined two ASD groups: one from a large clinic-based sample and the other from a research-based sample diagnosed with ASD via strict research criteria, in order to explore the links between the age of diagnosis, gender, and mental health. In both groups, later diagnosis was linked to more anxiety and depression, with anxiety not varying by gender. In the large clinic-based group, girls were diagnosed later than boys and had more anxiety and depression. In the research sample, girls had more depressive symptoms than boys. The findings highlight the need for early autism diagnosis, particularly for girls and women, to address mental health disparities.
89	**NIMH**	**Nominated article:** Sterrett K, Clarke E, Nofer J, Piven J, Lord C. Toward a functional classification for autism in adulthood. *Autism Res*. 2024 Oct;17(10):2105-2119. [Read Abstract Here]
		Justification from IACC member who nominated article:

		This study proposed a tool that could be used to characterize functional differences and support needs in autistic adults. Researchers created and tested a simple set of questions, organized in a flowchart, to differentiate meaningful subgroups of individuals with autism based on their level of functioning. The study involved 97 adults with autism or related neurodevelopmental disorders, who participated in a longitudinal study. Phone interviews were conducted when the participants were around 30 years old, and vignettes summarizing their characteristics (e.g., language level, vocational activities, and social relationships) were created. Expert clinicians used these vignettes to classify participants based on their support needs. The results revealed meaningful and reliably distinct subgroups within the sample. This tool provides a way to meaningfully categorize autistic adults according to their real-world functional and support needs, which may be helpful in individualizing plans for interventions, services, and supports.
90	**NIMH**	**Nominated article:** Wallace GL, Said AJ, McQuaid GA. Elevated parkinsonism symptoms in autism during middle and older adulthood are linked with psychosocial, physical health, and mental health outcomes. *Autism Res*. 2024 Nov 21. [Read Abstract Here]
		Justification from IACC member who nominated article: This study investigates the relationship between parkinsonism, or motor symptoms commonly associated with Parkinson's Disease, and autism in middle and older adulthood. The study used a screening measure to divide a sample of 379 autistic adults (ages 40-83) into two groups: parkinsonism screen positive (n = 119) and screen negative (n = 260). The groups were compared on broad metrics of daily living skills, subjective quality of life, and non-motoric features associated with parkinsonism, such as memory problems, sleep quality, and depression symptoms. The results revealed that co-occurring parkinsonism was linked to lower quality of life, more memory problems, poorer sleep quality, and greater depression symptoms in autistic adults. These findings highlight the significant, yet often overlooked, impact of parkinsonism as a co-occurring motoric phenotype in autistic individuals, which may have substantial real-world consequences.
91	**CDC**	**Nominated article:** Wiggins LD, Daniels J, Overwyk K, Croen L, DiGuiseppi C, Bradley C, Powell P, Dichter G, Moody E, Pazol K. Depressive symptoms and activity engagement in autistic adolescents and those with other developmental disabilities. *Disabil Health J*. 2024 Jul;17(3):101633. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: Few studies explore activities related to depressive symptoms in autistic people and those with other developmental disabilities (DD) during adolescence. The objectives of this analysis were to describe depressive symptoms and activity engagement among autistic adolescents and those with other DD and no DD and explore types of activities associated with depressive symptoms, stratified by study group. The analysis

		revealed that autistic adolescents and those with other DD are at increased risk for depressive symptoms and reduced activity engagement. Participation in sports may be especially important for adolescent mental health regardless of disability status.

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92	**NIMH**	**Nominated article:** Carey ME, McLean KJ, Chvasta K, de Marchena A, Roux AM. Methods to reduce fraudulent participation and highlight autistic voices in research. *Autism*. 2024 Nov 24:13623613241298037. [Read Abstract Here]
		Justification from IACC member who nominated article: This study examines strategies to reduce fraudulent participation, or "scammer" involvement, in online autism research, aiming to improve data validity and research efficiency. The research tested both established and emerging strategies to address this issue and found that these strategies effectively reduced scammer enrollment in focus groups. The findings emphasize the importance of safeguarding data integrity in autism research; however, they also highlight the ethical dilemma of excluding participants with atypical or limited communication abilities. While these strategies are time-consuming and resource-intensive, they are necessary to ensure both data integrity and inclusivity in research.
93	**NIMH**	**Nominated article:** Global Burden of Disease Study 2021 Autism Spectrum Collaborators. The global epidemiology and health burden of the autism spectrum: findings from the Global Burden of Disease Study 2021. *Lancet Psychiatry*. 2024 Dec 19:S2215-0366(24)00363-8. [Read Abstract Here]
		Justification from IACC member who nominated article: Researchers used data from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2021 to estimate the global prevalence and health burden of autism, incorporating improved epidemiological data and burden estimation methods. Through a systematic review and Bayesian meta-regression, they estimated that 61.8 million people (1 in 127 globally) were on the autism spectrum in 2021, with a higher prevalence among males than females. Autism accounted for 11.5 million disability-adjusted life years (DALYs) globally, with the highest burden observed in high-income regions and among individuals younger than 20 years. The findings highlight autism as a top cause of non-fatal health burden for young people, emphasizing the need for early detection and targeted support for autistic individuals and their caregivers. Researchers also called for improved global epidemiological data to refine estimates and address geographical disparities, helping guide resource allocation and health services to better meet the needs of autistic populations worldwide.
94	**NIMH**	**Nominated article:** Grosvenor LP, Croen LA, Lynch FL, Marafino BJ, Maye M, Penfold RB, Simon GE, Ames JL. Autism Diagnosis Among US Children and Adults,

		2011-2022. *JAMA Netw Open*. 2024 Oct 1;7(10):e2442218. [Read Abstract Here] [Free Full Text Article]
		Justification from IACC member who nominated article: This cross-sectional study analyzed trends in autism diagnoses using electronic health records from a large US health system network between 2011 and 2022. The study included over 12 million participants and found that autism diagnosis rates increased significantly across the population, rising by 175% overall, from 2.3 per 1,000 in 2011 to 6.3 per 1,000 in 2022. The most substantial increases occurred among 26-to-34-year-olds (450%) and female children and adults compared to males. Racial and ethnic minority children experienced greater relative increases in diagnoses than White children, though this trend was not observed among adults. These findings highlight increases in autism diagnoses, particularly among young adults, females, and minority groups, emphasizing the need for resource allocation to address the service needs of this expanding population.
95	**NICHD**	**Nominated article:** Harrop C, Tomaszewski B, Putnam O, Klein C, Lamarche E, Klinger L. Are the diagnostic rates of autistic females increasing? An examination of state-wide trends. *J Child Psychol Psychiatry*. 2024 Jul;65(7):973-983. [Read Abstract Here]
		Justification from IACC member who nominated article: For many years, autism has been more commonly diagnosed in boys than in girls. This tendency to associate autism with boys may leave girls with autism underdiagnosed or misdiagnosed. Researchers analyzed data from over 10,000 participants who received an autism diagnosis from centers in the University of North Carolina TEACCH Autism Program from 2000 to 2021. Over the 20-year period, the ratio of males to females diagnosed at this clinic decreased from more than 5 to 1 to just over 3 to 1. Although the rate of females receiving an autism diagnosis rose over time, the age of diagnosis still lagged behind male patients, with an average diagnosis 18 months later than males. Additionally, females who did not have a co-occurring intellectual disability were more likely to receive a late diagnosis compared to males who did not have a co-occurring intellectual disability. While there has been an increase in rates of autism diagnosis for females, the age of diagnosis for young female patients remains something for clinicians to consider.
96	**CDC**	**Nominated article:** Pesch MH, Leung J, Lanzieri TM, Tinker SC, Rose CE, Danielson ML, Yeargin-Allsopp M, Grosse SD. Autism Spectrum Disorder Diagnoses and Congenital Cytomegalovirus. *Pediatrics*. 2024 Jun 1;153(6):e2023064081. [Read Abstract Here]
		Justification from IACC member who nominated article: A new CDC study examined the likelihood of an autism diagnosis among nearly 3 million US children between ages 4 and 7 years, with or without congenital cytomegalovirus (cCMV). This study used Medicaid or Children's Health Insurance Program (CHIP) claims data. Children born with cCMV were 2.5 times as likely to also have an ASD diagnosis than

		children born without cCMV. While this work cannot establish a causal relationship, it highlights the importance of monitoring children with a diagnosis of cCMV, especially those with hearing loss, for early signs of autism.