

The Congressionally Directed Medical Research Programs

Autism Research Program

Nicole Williams, Ph.D.
Program Manager
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Transforming Healthcare through Innovative and Impactful Research



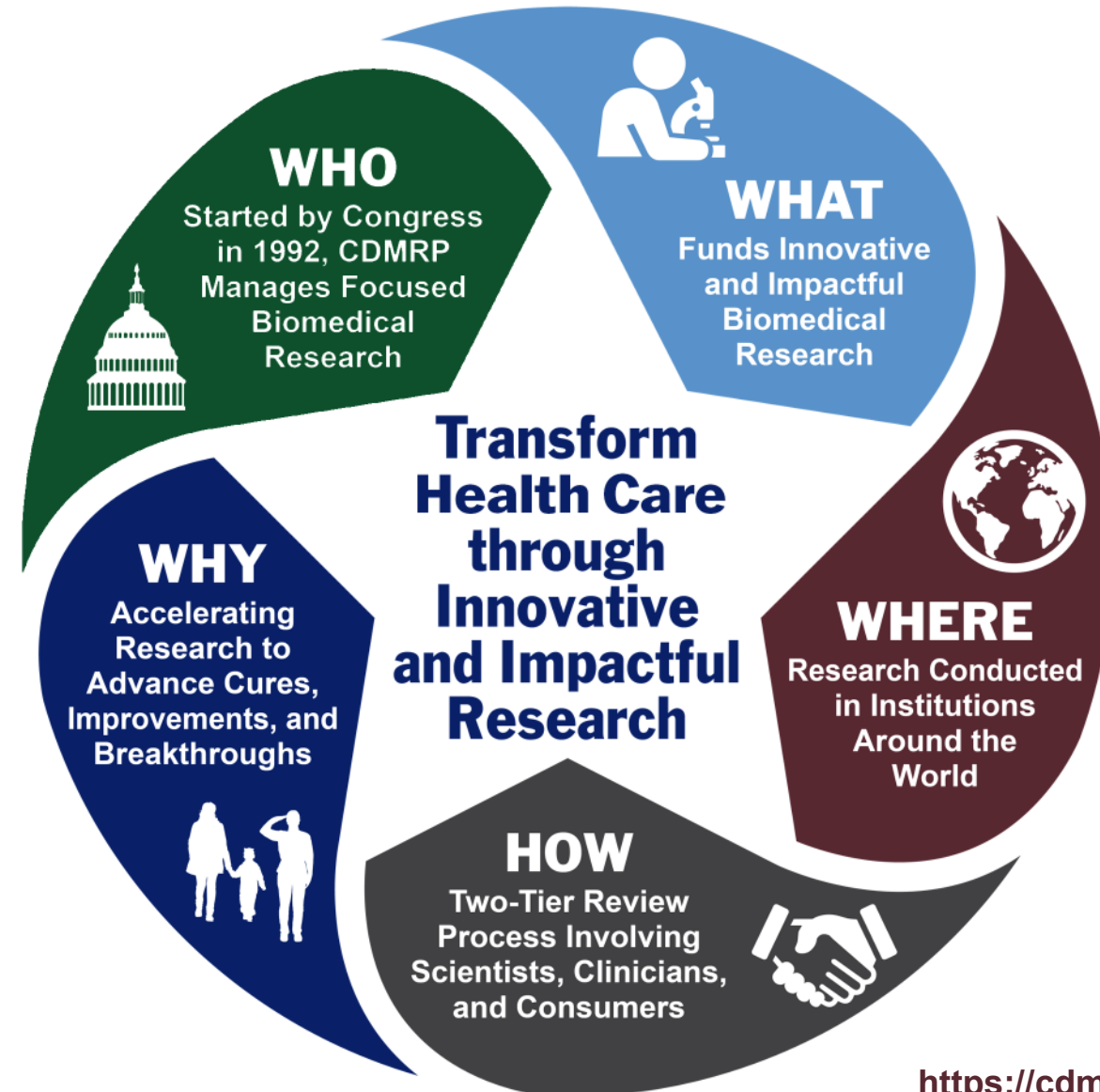
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For more information, visit cdmrp.health.mil

Mission

Responsibly manage collaborative research that discovers, develops, and delivers health care solutions for Service Members, their Families, Veterans and the American public



<https://cdmrp.health.mil>

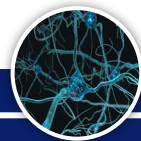
CDMRP FY24 Appropriations: \$1.509B



Cancer-Related Research Programs

Bone Marrow Failure	\$7.5M
Breast Cancer	\$150M
Glioblastoma (New for FY24)	\$10M
Kidney Cancer	\$50M
Lung Cancer	\$25M
Melanoma	\$40M
Ovarian Cancer	\$45M
Pancreatic Cancer	\$15M
Peer Reviewed Cancer (18 Topics)	\$130M
Prostate Cancer	\$110M
Rare Cancers	\$17.5M

Total **\$600.0M**



Neuro/Immuno-Related Research Programs

Alcohol and Substance Use Disorders	\$4M
Amyotrophic Lateral Sclerosis	\$40M
Autism	\$15M
Duchenne Muscular Dystrophy	\$10M
Epilepsy	\$12M
Lupus	\$10M
Neurofibromatosis	\$25M
Multiple Sclerosis	\$20M
Parkinson's	\$16M
Peer Reviewed Alzheimer's	\$15M
Tuberous Sclerosis Complex	\$8M

Total **\$175.0M**



Injury/Rehabilitation - Related Research Programs

Arthritis (New for FY24)	\$10M
Combat Readiness Medical	\$5M
Hearing Restoration	\$5M
Joint Warfighter Medical	\$20M
Military Burn	\$10M
Peer Reviewed Orthopaedic	\$30M
Reconstructive Transplant	\$12M
Spinal Cord Injury	\$40M
Tick-Borne Disease	\$7M
Toxic Exposure	\$30M
Traumatic Brain Injury and Psychological Health	\$175M
Vision	\$20M

Total **\$364.0M**



Multi-Topic Research Program

Peer Reviewed Medical (42 Topic Areas)	\$370M
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Peer Reviewed Medical Portfolios

	Autoimmune Disorders and Immunology
	Cardiovascular Health and Nutrition
	Hemorrhage Control and Blood Products
	Infectious Diseases
	Internal Medicine
	Neuroscience
	Orthopaedic Medicine
	Rare Diseases and Conditions
	Respiratory Health

Total **\$370.0M**

ARP Synopsis

Vision: Improve the lives of individuals with autism spectrum disorder now and in their future

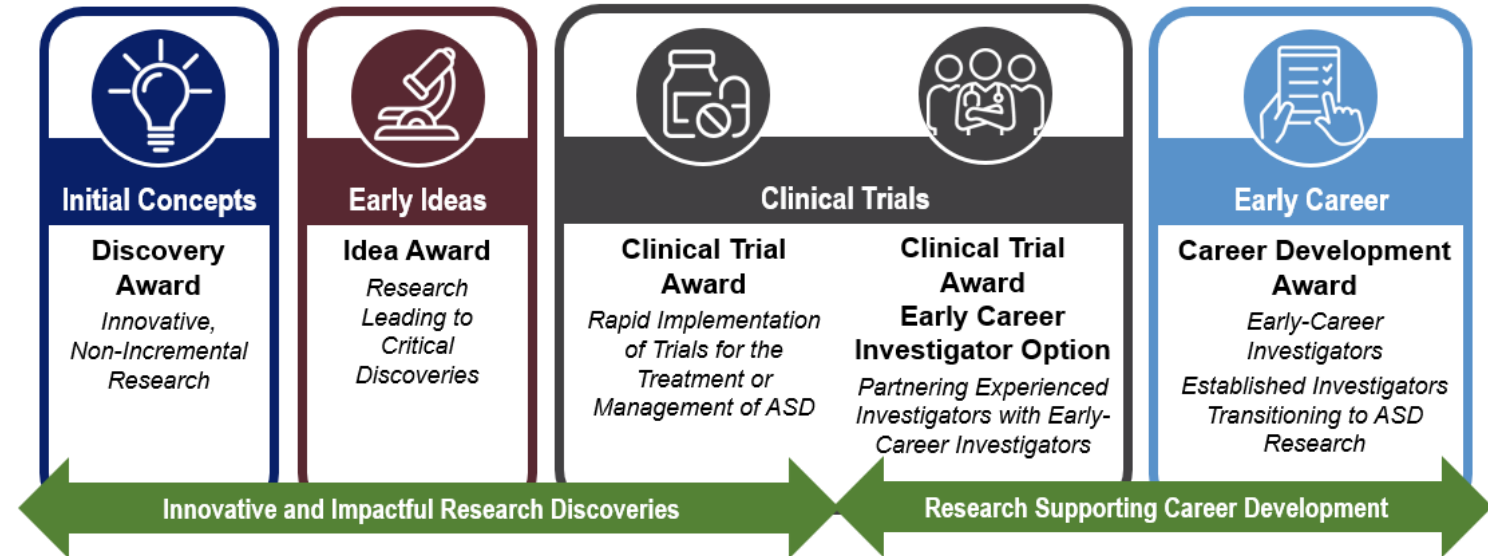
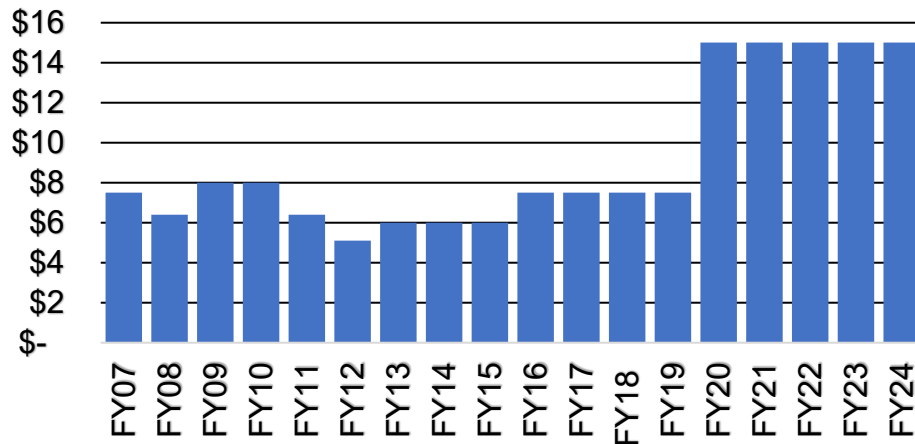
Mission: Promote innovative research that advances the understanding of autism spectrum disorder and leads to improved outcomes for Service Members, their Families, and the American public

FY24: \$15.0M

FY07-FY23: \$149.4M

220 Awards

ARP Appropriations



<https://cdmrp.health.mil/arp/>

FY24 Programmatic Panel	Institution
Daniel Schulteis, M.D. (Chair)	Children's Wisconsin; U.S.A.F. (Ret.)
Krystyna Bienia, Psy.D.	Defense Health Agency
Raymond Booth, Ph.D.	Northeastern University
Dana Bryant, B.A.	The Answer, Inc.
Kimberly Carpenter, Ph.D.	Duke University
Darragh Devine, Ph.D.	University of Florida
Aisha Dickerson, Ph.D.	Johns Hopkins University
Anne Grego-Nagel, Ph.D.	Autism Speaks
Brittany Hand, Ph.D.	The Ohio State University
Kristi Hardy, Ph.D.	NINDS
Clare Harrop, Ph.D.	UNC Chapel Hill
Shelley Hendrix-McLaughlin, B.A.	Unlocking Autism
Matthew Maenner, Ph.D.	CDC

Advance Effective Treatments and Interventions for Autism

- Cultural, socioeconomic, and gender factors in diagnosis, treatment efficacy, delivery, and access to services
- Non-pharmacological and pharmacological therapies for core symptoms/alleviate co-occurring conditions
- Understanding heterogeneity in treatment response

Address Needs of Persons with Autism into Adulthood

- Factors promoting success in key transitions to independence
- Interventions promoting success in key transitions to adulthood
- Understanding physical health and related issues in aging Autistic adults

Improve the lives of individuals with autism spectrum disorder now and in their future

Support Those Caring for the Autism Community

- Healthcare provider-focused training or tools to improve healthcare delivery for individuals with ASD, across the life span and the continuum of care
- Factors impacting quality of life for current and former military families

Understand Causes, Mechanisms, and Signs of ASD

- Environmental risk factors for ASD
- Mechanisms underlying conditions co-occurring with ASD
- Improved diagnosis of autism across the life span
- Mechanisms underlying sex differences

https://cdmrp.health.mil/arp/pdfs/ARP%20Strategic%20Plan_2021.pdf

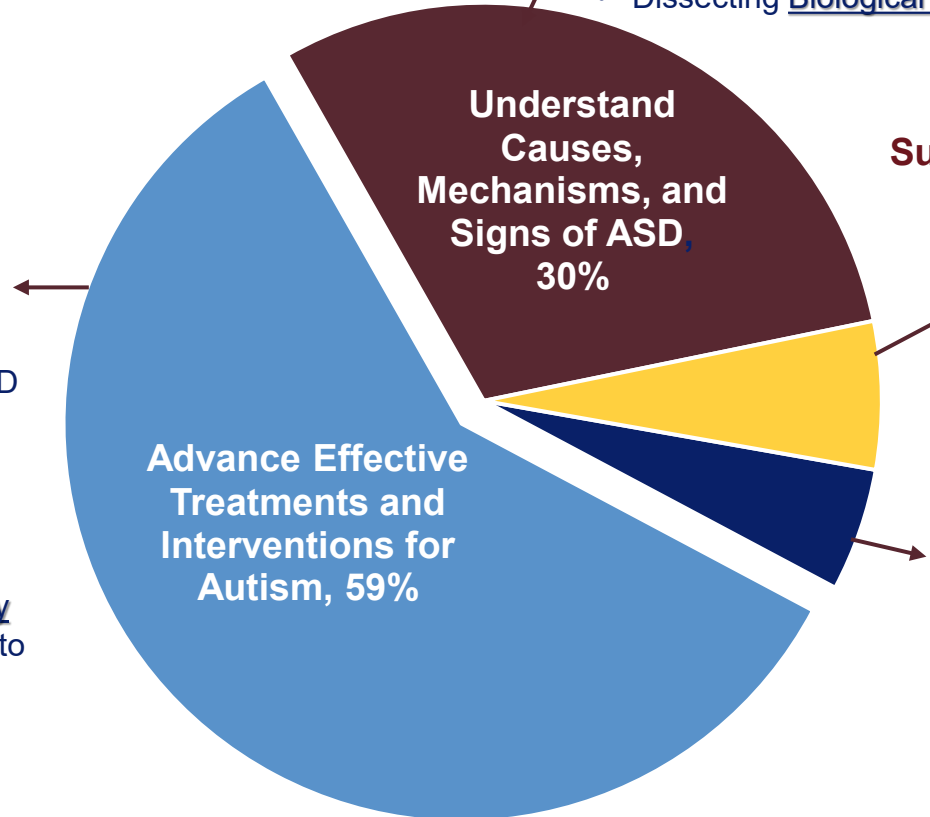
ARP Portfolio Investments (FY19-FY23)

Select Studies:

- Telehealth Parent-Implemented Intervention to Improve Social-Communication Outcomes in Young Children with ASD
- Noninvasive Brain Stimulation to Treat Core Social Deficits
- CBD as a New Treatment for ASD
- Understanding Contributors to Clinical Outcomes in Hispanic Children With ASD
- Propranolol for Aggression, Self-injury, and Severe Disruptive Behavior in Adolescents and Adults with ASD
- Meeting the Needs of Young Hispanic Autistic Children: Developing a Culturally and Linguistically Sensitive Intervention to Alleviate Core Social Challenges

Select Studies:

- Biomarkers of Hyperacusis
- Biomarkers for Nocturnal Epileptiform Discharges
- Dissecting Biological Mechanisms Underlying Behavioral Heterogeneity



Support Those Caring for the Autism Community, 6%

Select Studies:

- Effectiveness of Evidence-Based Mental Health Practices for Youth with Autism Supported by Online Consultation to Practitioners in Community and Navy Clinics
- Training the Future Pediatric Workforce to Implement Best Practices for ASD Within Primary Care

Address Needs of Persons with Autism into Adulthood, 5%

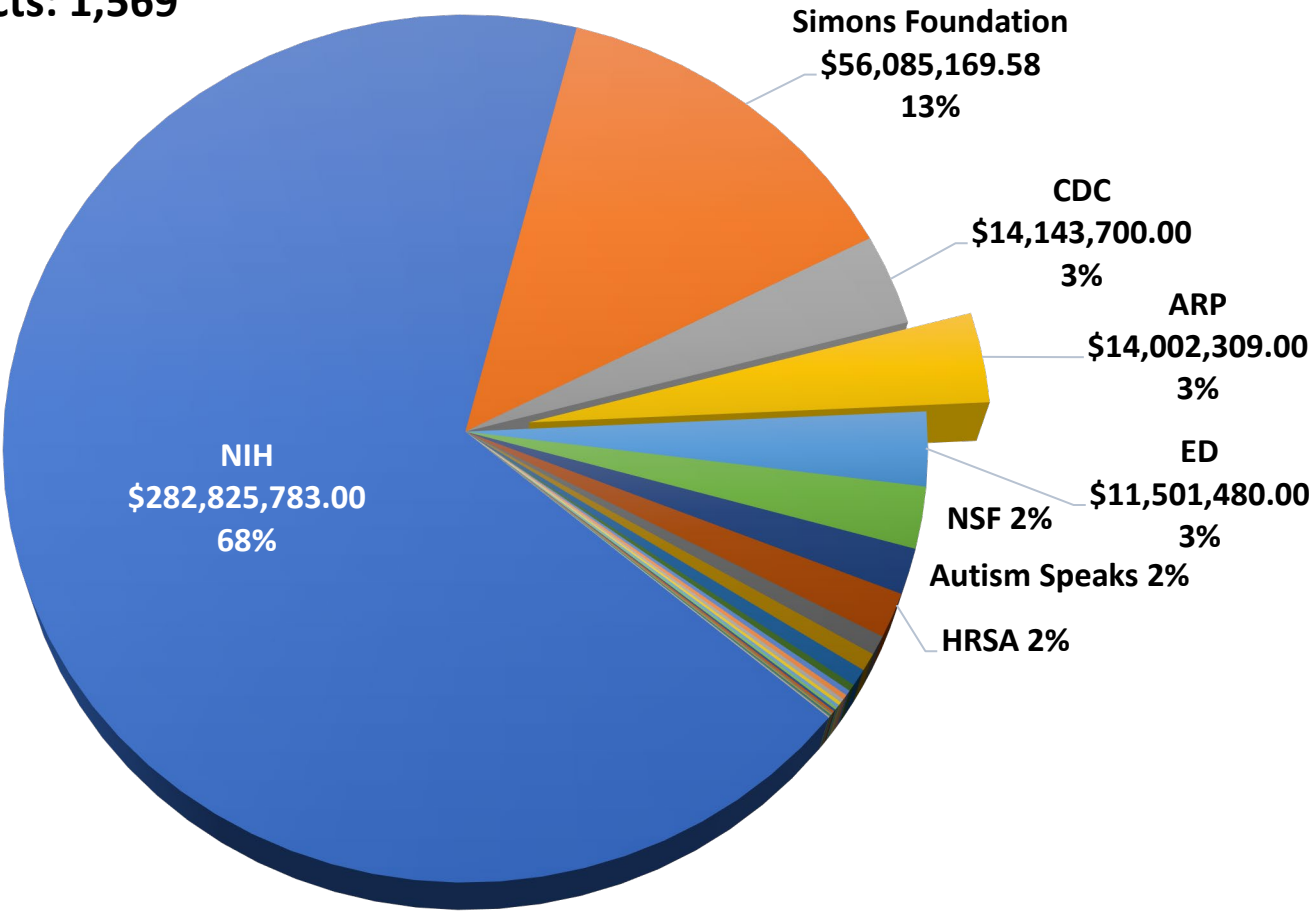
Select Studies:

- Community Participation, Service Needs, and Health Outcomes Among Adults with Autism
- Multicomponent Behavioral Intervention Designed to Increase Functional Independence During Aging in ASD
- Development of a Novel, Evidence-Based Tool to Facilitate Independence for Autistic Individuals

2020 U.S. Autism Research Funding by Funder

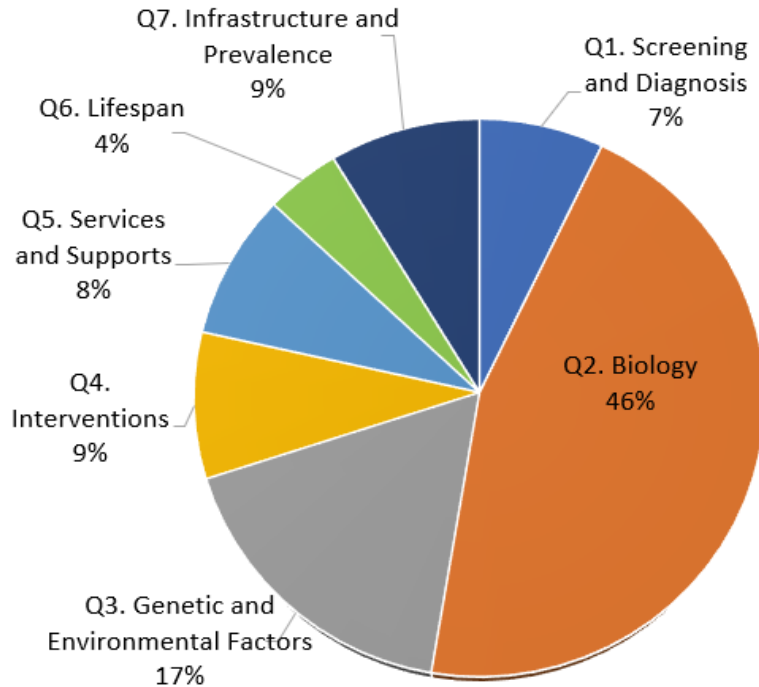
Total Funding: \$416,424,216

Total Number of Projects: 1,569

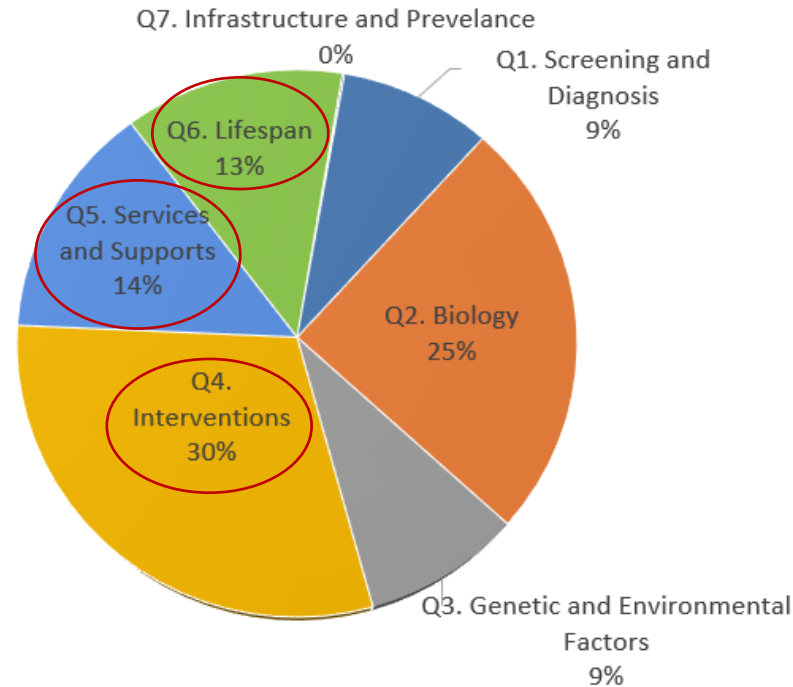


https://iacc.hhs.gov/publications/portfolio-analysis/2020/portfolio_analysis_2020.pdf?ver=3

IACC Member Funding Towards ASD



2020 IACC Portfolio



FY07-FY20 ARP Portfolio

FY07-20 Portfolio coded using IACC codes; Percentage of research dollars invested
2020 IACC Portfolio includes federal (including ARP) funders of ASD research

Strategic Plan Questions

- 1 – How can we improve identification of autism?
- 2 – What is the biology underlying ASD?
- 3 – What are the genetic and environmental factors that contribute to autism and its co-occurring conditions?
- 4 – Which interventions will improve health and well-being?
- 5 – What services and supports are needed to maximize health and well-being?
- 6 – How can we address the needs of people on the autism spectrum throughout the lifespan?
- 7 – How do expand and enhance research infrastructure systems to meet the needs of the autism community?

◆ Using Technology to Expand and Enhance Applied Behavioral Analysis Programs for Children with Autism in Military Families; Dr. Wayne Fisher; University of Nebraska Medical Center, FY10

- ❖ Demonstrated that tele-video-based instruction provides an effective mechanism for: (1) training military parents of children with autism and (2) training adults to become ABA tutors
- ❖ Award outputs:
 - Fisher, Wayne W., et al. "A randomized clinical trial of a virtual-training program for teaching applied-behavior-analysis skills to parents of children with autism spectrum disorder." *Journal of applied behavior analysis* 53.4 (2020): 1856-1875.
 - Higgins, William J., et al. "Evaluation of a telehealth training package to remotely train staff to conduct a preference assessment." *Journal of applied behavior analysis* 50.2 (2017): 238-251.
 - Peterson, K. M., Piazza, C. C., Luczynski, K. C., & Fisher, W. W. Virtual-care delivery of applied-behavior-analysis services to children with autism spectrum disorder and related conditions. *Behavior Analysis: Research and Practice*, 17(4) (2017). 286–297.

◆ Comparative Effectiveness of EIBI and Adaptive ABA for Children with Autism; Dr. Susan Hyman; University of Rochester, FY17

- ❖ Compared early intensive behavioral intervention (EIBI) for 20+ hours per week against adaptive modular ABA (AM-ABA) for up to 10 hours per week in a 24 week RCT in military beneficiary autistic children under age 5
- ❖ Hypothesize was AM-ABA will be no less effective than EIBI using a standardized measure of adaptive skills as the primary outcome measure
- ❖ Examined facilitators and barriers to implementation of AM-ABA (e.g., parent and provider buy-in, fidelity of intervention, cost)
- ❖ Recently closed and publication pending

Questions?
For more information, please visit:



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