

## Appendix D.4. Research Domains by Data Collection Activities

Aim	Data Collection Activities			
	Interview or Paper	Phone	Clinical	Medical Records
1. Characterize phenotypic variation in ASD cases including:				
pattern of clustering of core symptoms	CBCL, CTS, Sleep, Diet, Stool, SRS (App. E.3 & H)	Vineland, EDQ (App. F)	ADOS, ADI-R (App. F & G)	Pediatric Hx (App. S.5)
timing of onset			ADOS, ADI-R, EDQ (App. F & G)	Pediatric Hx (App. S.5)
cognitive status			Mullen, Vineland (App. F & G)	
presence of medical and psychiatric co-morbidities	CBCL, CTS, Sleep, Diet Stool (App. E.3 & H)	Caregiver Intv (App. B)	ADI-R (App. F)	Pediatric Hx (App. S.5)
2. Identify features which distinguish ASD children/families from NIC and sub cohort children/families in these areas:				
physical			Dysmorph (App. P_)	Pediatric Hx (App. S.5)
medical	Diet/Stool, Mat & Pat Hx (App. E.3 & H)	Serv & Treatm, Caregiver Intv (App. B & F)		Pediatric Hx, Mat Hx
developmental		EDQ, Caregiver Intv (App. B & F)	Mullen, Vineland (App. F & G)	Pediatric Hx (App. S.5)
behavioral	CBCL, CTS, Sleep, Diet, Stool, SRS (App. E.3 & H)	Vineland, Caregiver Intv (App. B & F)	ADOS, ADI-R (App. F & G)	Pediatric Hx, Mat Hx
3. Examine whether certain prenatal or postnatal exposures are related to risk for ASD or other characteristics of ASD or its subtypes				
infection, treatment for infection	Mat & Pat Hx (App. E.3)	Caregiver Intv (App. B)	blood/Buccal (App. E.4)	Pediatric Hx, Mat Hx
autoimmune dysfunction	Autoimmune Hx (App. E.3)	Caregiver Intv (App. B)	blood/Buccal (App. E.4)	Pediatric Hx, Mat Hx
hormonal characteristics		Caregiver Intv (App. B)	blood/Buccal (App. E.4)	Mat Hx
other reproductive characteristics		Caregiver Intv (App. B)		Mat Hx
4. GI disturbances				
Are they more common in ASD or ASD endophenotypes (?compared to NIC or subcohort)	Diet/Stool (App. H)			Pediatric Hx (App. S.5)
Is association with ASD risk mediated by				
dietary patterns	Diet (App. H)			
other biologic factors			blood/Buccal (App. E.4)	Pediatric Hx (App. S.5)
genetic factors			blood/Buccal (App. E.4)	
5. Explore genetic aspects of ASK risk and ASD				

endophenotypes				
Associations between genomic variation and candidate genes			blood/Buccal (App. E.4)	
6. Association of sociodemographic or behavioral factors with risk of ASD or ASD endophenotypes				
Sociodemographic		Enrollment Q/Caregiver Intv (App. B & E)		
Parental age		Enrollment Q/Caregiver Intv (App. B & E)		
Race/ethnicity		Enrollment Q/Caregiver Intv (App. B & E)		
family income/education	Paternal Occup (App. E.3)	Enrollment Q/Caregiver Intv (App. B & E)		
Behavioral				
maternal smoking		Caregiver Intv (App. B)		
alcohol consumption		Caregiver Intv (App. B)		
substance abuse		Caregiver Intv (App. B)		Maternal Hx
Instruments required across all domains for case ascertainment confirmation & subtyping		SCQ, Vineland (App. F & J)	ADI-R (App. F), ADOS, Mullen (App. G), blood/Buccal (App. E.4), Dysmorph (App. P)	