

Table S1. Summary of molecular findings and clinical features in females with *NAA10* variants.

Reference	Cheng et al. 2019	Bader et al. 2020	Saunier et al. 2016, Sidhu et al. 2017, Cheng et al. 2019 Our case	Cheng et al. 2019	Cheng et al. 2019	Popp et al. 2015	McTiernan et al. 2018	Saunier et al. 2016	Cheng et al. 2019	Thevenon et al. 2016	Saunier et al. 2016, Cheng et al. 2019	Cheng et al. 2019	Total
<i>NAA10</i> mutation	Leu11Arg	His16Pro	Arg83Cys	Ala87Ser	Ala104Asp	Val107Phe	Val111Gly	Arg116Trp	Leu121Val	Phe128Ile	Phe128Leu	Met147Thr	12
CADD score	32	28.6	28.9	25.4	27.6	26.1	28.3	24.3	25.8	27.9	23.4	24.0	
Functional studies	reduction in NatA catalytic activity	impaired NatA complex formation	clear reduction (60%) in catalytic activity; enhance catalytic activity (Cheng et al. 2019)	NA	reduction in NatA catalytic activity	nearly abolished enzymatic activity	decreased stability, NatA catalytic activity unchanged	very mild reduction in catalytic activity	NA	decreased stability, near loss activity (>90%)	decreased stability, near loss activity (>90%)	very mild reduction in catalytic activity	
Patients	1	1	20	3	1	1	1	1	2	1	3	1	36
Inheritance	NA	<i>de novo</i>	<i>de novo</i> (19/20), MGM (1/20)	<i>de novo</i> (3/3)	<i>de novo</i>	<i>de novo</i>	<i>de novo</i>	<i>de novo</i>	<i>de novo</i> (1/2), NA (1/2)	<i>de novo</i>	<i>de novo</i>	<i>de novo</i>	<i>de novo</i> (33/36)
X-inactivation	NA	skewed	random (1/20), NA (17/20), 92% (1/20), 100% (1/20)	NA (3/3)	NA	random	random	random	NA(2/2)	random	random (1/3), NA (2/3)	NA	
Feeding difficulties			14/20	2/3	+				1/2		1/3	+	20/36
Short stature		+	10/20	1/3		+			1/2	+	2/3		17/36
Microcephaly		+	11/20			+					1/3	+	15/36
Facial Dysmorphism		+	14/20	2/3		+			1/2	+	2/3		22/36
NDD/ ID	+	+	20/20	3/3	+	+	+	+	2/2	+	3/3	+	36/36
Seizures			5/20	2/3							2/3		9/36
Muscular hypotonia		+	10/20	2/3		+		+	1/2	+	1/3		18/36
Neuropathy			1/20										1/36
Movement disorder			4/20	1/3	+						1/3		7/36
Brain imaging anomalies	+	+	9/20	2/3		+	(mild)	+	(thin CC, dilated LV)	+	3/3	+	20/36
NDD		autism	8/20 autism	1/3 (autism, ADHD)	autism, ADHD	autism		ADHD, DCD	1/2 autism				15/36

Behavioural abnormalities			7/20			+		1/2		9/36
Cardiac anomalies			10/20			+		+	+	14/36
Eye abnormalities	+	+	14/20	1/3	+	+		1/2	1/3	22/36
Genitourinary system abnormalities			2/20							2/36
Skeletal system abnormalities		+	10/20	1/3	+	+ (large fontanelles, delayed bone age)		1/2	1/3	16/36
Ear abnormalities			3/20	1/3	+					5/36
GI tract abnormalities			5/20							
Skin abnormalities			4/20							4/36
Other			sleep disorder		sleep disorder			bruxism		