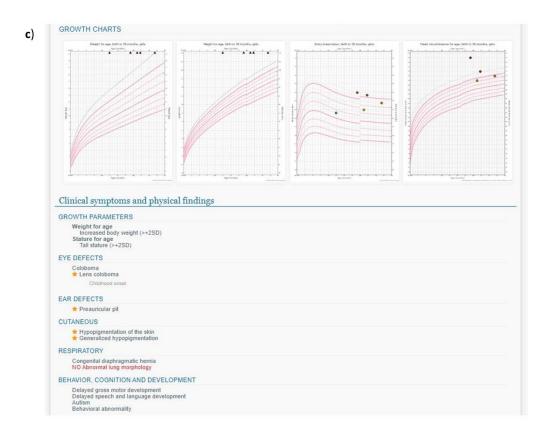
## Supporting Figures

	re Test Care Pathways Post Test	
		lore ac
This record	d is owned by 🛔 Administrator 🛛 and is 🖨 private 🔄 It is shared with 🖉 Phase 1 admins and 6 other collaborators  🛛 🗡 Mod	dify per
This patient is part of: 😢 Unsolved GWS Case enro	xlled in Care Pathways (Phases 1 and 2)	
Patient consent(s)		
SOLVE Phase 1 Optional (SCH)		
Patient information		
Identifier:	TEST123	
G4RD Family ID (Project ID):	FAM0000044 (Test ID)	
Life status:	Alive	
Date of birth:	2018-03	
Sex:	Female	
Indication for referral:		
Hereditary Spastic Paraplegia		
Family history and pedigree		
FAM0000044 (Test ID)		
	Family members:	
	<ul> <li>TEST123 (2018-03)</li> </ul>	
×	• 1E51125 (2016-05)	
	· TEST 123 (2016-03)	
	• 1E31123 (2016-03)	
	• 1E31123 (2016-03)	
	• 1E31123 (2016-03)	
	• TEST123 (2016-03)	
	Maternal ethnicity:	

## b) Measurements

Date:	05/29/2019	
Age:	1y 2m	
Weight:	60.0 kg	100 <sup>th</sup> pctl (+12.09SD)
Height:	190.0 cm	100 <sup>th</sup> pctl (+41.17SD)
BMI:	16.62	64 <sup>th</sup> pctl (+0.35SD)
Arm span:	80.0 cm	= Height - 110.0 cm
Date:	01/28/2020	
Age:	1y 10m	
Weight:	65.0 kg	100 <sup>th</sup> pctl (+11.11SD)
Height:	185.0 cm	100 <sup>th</sup> pctl (+31.4SD)
BMI:	18.99	99 <sup>th</sup> pctl (+2.25SD)
Head circumference:	55.0 cm	100 <sup>th</sup> pctl (+5.69SD)
Date:	04/14/2020	
Age:	2y 1m	
Weight:	55.0 kg	100 <sup>th</sup> pctl (+9.94SD)
Height:	180.0 cm	100 <sup>th</sup> pctl (+28.17SD)
BMI:	16.98	82 <sup>nd</sup> pctl (+0.93SD)
Head circumference:	50.0 cm	92 <sup>nd</sup> pcti (+1.42SD)
Date:	05/21/2020	
Age:	2y 2m	
Weight:	54.0 kg	100 <sup>th</sup> pctl (+9.68SD)
Height:	170.0 cm	100 <sup>th</sup> pctl (+24.37SD)
BMI:	18.69	98 <sup>th</sup> pctl (+2.01SD)
Head circumference:	52.0 cm	100 <sup>th</sup> pctl (+2.91SD)



## d)

Genotype information

## LUST OF GENES Gene Status STRATEGY COMMENTS 1 SRCAP @ Candidate Comments 2 PSMB6 @ Confirmed causal STRATEGY Comments • SUGGESTED GENES Clok on terms below (extracted from the phenotypic description) to disable or re-enable their contribution in the gene search results. Tail stature (184) Coloboma (200) Tail stature (184) Coloboma (200) Behavioral abnormality (200) Autism (196) Delayed speech and language development (600) Congenital diaphragmatic hemia (190) More Market Image: Status (184) Coloboma (200) Behavioral abnormality (200) Autism (196) Delayed speech and language development (600) Congenital diaphragmatic hemia (190) Hypopigmentation of the skin (197) Delayed gross motor development (196) Preasure (196) Congenital diaphragmatic hemia (197) Delayed gross motor development (196) Preased body weight (197) Preased Candidate Matching genes Associated phenotypes Page 1 2 3 4 8 0 7 8 9 10... 210 Page 1 2 3 4 8 0 7 8 9 10... 210 Page 1 2 3 4 8 0 7 8 9 10... 210 Matching genes Associated phenotypes Press of the skin; Increased body weight; Tail stature Page 1 2 3 4 8 0 7 8 9 10... 210

A DOWNLOAD		Exclude Tested Negative And Rejected Candidate Ge	ene				
Results 1 - 10 out of 2157 per	page of 10 🗸	Page 1 2 3 4 5 6 7 8 9 10 216 🌍	0				
Matching genes	Associated phenotypes						
PTEN Ø	Autism; Behavioral abnormality; Coloboma; Delayed gross motor	development; Hypopigmentation of the skin; Increased body weight; Tall stature					
HERC2 0	Autism; Behavioral abnormality; Delayed gross motor developme skin; Increased body weight	nt; Delayed speech and language development; Generalized hypopigmentation; Hypopigmentation of the					
MAGEL2 0	Autism; Behavioral abnormality; Delayed gross motor developme skin; Increased body weight	nt; Delayed speech and language development; Generalized hypopigmentation; Hypopigmentation of the					
NIPBL O	Autism; Behavioral abnormality; Coloboma; Congenital diaphrage	matic hernia; Delayed speech and language development; Increased body weight					
SH2B1 0	Autism; Behavioral abnormality; Coloboma; Congenital diaphrage	matic hernia; Delayed speech and language development; Increased body weight					
SIN3A 1 Autism; Behavioral abnormality; Coloboma; Congenital diaphragmatic hernia; Delayed speech and language development, Increased body weight							
EP300 0	utism; Behavioral abnormality; Coloboma; Delayed gross motor development; Delayed speech and language development; Increased body weight						
ATP6V1A 0	Autism; Behavioral abnormality; Coloboma; Delayed gross motor	ality; Coloboma; Delayed gross motor development; Delayed speech and language development; Tall stature					
RERE 0	Autism; Behavioral abnormality; Coloboma; Delayed speech and	language development; Increased body weight; Tall stature					
AKT1 0	Autism; Behavioral abnormality; Coloboma; Hypopigmentation of	the skin; Increased body weight; Tall stature					
Results 1 - 10 out of 2157		Page 1 2 3 4 5 6 7 8 9 10 216	0				
Diagnosis							
linical diagnosis (ORDO)		1661 X-linked corneal dermoid					
inal diagnosis (OMIM)		425580 HAIRY EARS, Y-LINKED					

**Supp. Figure S1a-d. Genomics4RD records.** Genomics4RD records can store and display a breadth of participant information, including, but not limited to: a) participant consent types, coded participant demographic information, family history and pedigrees; b) clinical measurements; c) growth charts, clinical symptoms and physical findings (using HPO terms, starred for relevance); and d) genotype information, suggested candidate genes based on HPO-gene associations, and diagnoses. The Care Pathway modules are available as separate forms, accessible at the top of participant records enrolled in the study (see a).

GnomAD MAF < 1 % Gnom			GnomAD MAF <	.5 % Het.	Hom.							
27/27	7 columi	ns visible, 1 ac	tive filter, 2 colum	ns sorted							Manage columns	Manage filters
Pati cour		Global AF	GnomAD MAF	₹ Ref	≎ Rs ID	1 ▼ Chro	2 ▼ Start Position	Stop Position	Reference Allele			≎ Type
2	••••	0.05263158		GRCh38		10	116715	116716	TGCAGT	-	2 entries	•• deletion
2	•••	0.05263158		GRCh38		10	116708	116709	-	AC	2 entries	•• insertion
1	***	0.10526316	0.487668	GRCh38	rs4537687	10	116433	116433	С	A	4 entries	substitution
1	***	0.02631579	0.063337	GRCh38	rs189357902	10	116256	116256	G	т	heterozygo	us substitution
14	•••	0.42105263	0.74238	GRCh38	rs796072128	10	116217	116220	пп	-	14 entries	•• deletion
10	•••	0.2631579	0.194534	GRCh38	rs3866489	10	115743	115743	G	A	10 entries	•• substitution
3	•••	0.078947365	0.113645	GRCh38	rs3954302	10	115625	115625	G	A	3 entries	•• substitution
4	***	0.10526316	0.200323	GRCh38	rs2379055	10	114926	114926	G	A	4 entries	** substitution
3	•••	0.078947365	0.049473	GRCh38	rs10904505	10	114308	114308	т	С	3 entries	•• substitution
12	•••	0.31578946	0.252945	GRCh38	rs10904494	10	113934	113934	A	С	12 entries	•• substitution
14	•••	0.7105263		GRCh38	rs782639415	10	113094	113094	т	-	14 entries	•• deletion
10	•••	0.2631579	0.025956	GRCh38	rs146514023	10	111990	111990	A	G	10 entries	substitution
1	•••	0.02631579	0.063445	GRCh38	rs7909677	10	111955	111955	A	G	heterozygo	us substitution
1		0.02631579	0.069533	GRCh38	rs7923210	10	111613	111613	С	Т	heterozygo	us substitution

**Supp. Figure S2. Genomics4RD variant store.** The variant store aggregates variants across participants in Genomics4RD. Data depositors can multi-filter the store based on variant annotations, zygosity, and counts across participants.