Supplementary Table 1. Details of the genetic mutations in the subjects with Noonan Syndrome

ID	Age (y)/ Gender	Gene	Exon	Nucleotide change	Change in amino acid sequence	Zygosity	Inheritance	Variant classification
NS1	12/F	PTPN11	8	Chr.12:112915523A>G c.922A>G	p.Asn308Asp	Heterozygosity	Dominant	Pathogenic
NS2	5/M	PTPN11	3	Chr.12:112881586A>G c.172A>G	p.Asn58Asp	Heterozygosity	Dominant	Pathogenic
NS3	15/M	PTPN11	12	c.1403C>T	p.Thr468Met	Heterozygosity	Dominant	Pathogenic
NS4	7/M	PTPN11	8	chr12:112915524A>G c.923A>G	p.Asn308Ser	Heterozygosity	Dominant	Pathogenic
NS5	6/M	PTPN11	13	c.1504T>A	p.Ser502Thr	Heterozygosity	Dominant	Pathogenic
QNS6	11/F	POU1F1	6	Chr.3:87309109G>A c.811 C>T	p.Arg271Trp	Heterozygous	Dominant/Recessive	Variant of unknown significance with Probable Damaging Effect

Abbreviations: y = years, M = Male, F = Female

Supplementary Table 2 Comparison between Noonan Syndrome with Combined Pituitary Hormone Deficiency (CPHD) and CPHD due to structural defects / transcription factor defects in persons without Noonan Syndrome

Parameter	**NS with CPHD (*n* = 5)**	**CPHD but not NS (*n* = 5)**	***P* value**
Age	12 (11,14)	13 (13,14)	0.58
Height (cm)	117.5 (89,126)	129.8 (125.5,130)	0.22
Height-SDS	-4.18 (-4.36,-4.17)	-3.04 (-4.03, -2.81)	0.15
Body weight (kg)	18 (10,19)	30 (28,32)	0.02
Body weight SDS	-5.05 (-6.32,-3.63)	-2.1 (-2.48,-1.58)	0.03
BMI-SDS	-3.54 (-3.96,-3.49)	-0.37 (-0.85,0.09)	0.008
IGF-1	149 (86.3,179)	76 (38,120)	0.22
IGF-1 SDS	-1.59 (-1.94,-1.1)	-1.12 (-1.89,0.57)	0.55
Secondary hypocortisolism	4 (80%)	4 (80%)	
Cortisol (mcg/dl)	7.14 (5.6,8.7)	4.8 (4.3,5.4)	0.09
ACTH (pg/ml)	30.2 (25.65,34.75)	20 (12.5,28.3)	0.38
Stimulated Cortisol (mcg/dl)	14.45 (14,15.03)	11.6 (9.45,17.4)	0.49
Secondary hypothyroidism	2 (40%)	2 (40%)	
Free T4	0.75 (0.68,0.82)	1 (0.9,1.2)	0.23
TSH (mIU/ml)	1.19 (0.83,1.55)	1.9 (1.3,3.6)	0.29
Hypogonadotropic hypogonadism	2 (40%)	3 (60%)	>0.99
LH (mIU/ml)	1 (0.7,1.66)	0.3 (0.3,0.4)	0.07
FSH (mIU/ml)	3.95 (2.78,6.99)	1.5 (0.8,2.4)	0.19

Pituitary hypoplasia on MRI	4 (80%)	4 (80%)	1
Height velocity in first year with GH	9.2 (8.4,9.6)	8 (7.2,8.2)	0.55
Overt hypocortisolism/hypothyroidism developed after GH therapy	1 (20%)	0	
Ht SDS (%) increment in 1 year	11.7 (5.09,17.49)	13.97 (13.49,20.99)	0.55
Low IGF-1 (< -2 SDS)	2 (40%)	3 (60%)	>0.99
GH deficiency seen on stimulation tests	4 (80%)	4 (80%)	1
IGF1 SDS (%) increment in 1 year	78.45 (48.35,89.26)	105.26 (47.5,258.82)	0.84

Parameters are expressed as median (IQR) where IQR is expressed as (P25,P75) or n (%). Abbreviations used : NS = Noonan Syndrome, CPHD = Combined Pituitary Hormone Deficiency, SDS = Standard Deviation score, BMI = Body Mass Index, IGF-1 = Insulin like Growth Factor 1, GH = Growth Hormone, ASD = Atrial Septal defect, ASH = Asymmetric Septal hypertrophy.