

**Supplementary file – Futterer et al 2018**

**Supplementary Table 1**

Summary of Whole exome sequencing results for both patients.

Variant type	Patient III:3		Patient III:5	
	known	novel	known	novel
All variants	23943	583	24293	607
heterozygous	13111	506	13712	524
homozygous	10832	77	10581	83
Coding variants	21143	522	21441	540
heterozygous	11614	457	12114	471
homozygous	9529	65	9327	69
Splice variants	2800	61	2852	67
heterozygous	1497	49	1598	53
homozygous	1303	12	1254	14
Nonsynonymous SNVs	9678	277	9785	275
heterozygous	5326	246	5530	255
homozygous	4352	31	4255	20
Synonymous SNVs	10871	190	11070	194
heterozygous	6017	178	6299	176
homozygous	4854	12	4771	18
Stoploss SNVs	47	0	45	2
heterozygous	16	0	19	1
homozygous	31	0	26	1
Stopgain SNVs	82	3	82	5
heterozygous	59	3	65	5
homozygous	23	0	17	0
Deletions	204	21	203	34
heterozygous	99	11	106	21
homozygous	105	10	97	13
Insertions	220	30	221	27
heterozygous	73	18	76	12
homozygous	147	12	145	15
Frameshift deletions	69	5	69	9
heterozygous	22	2	29	5
homozygous	47	3	40	4
Frameshift insertions	112	9	119	8
heterozygous	21	5	22	0
homozygous	91	4	97	8
Transition:Transversion ratio	3.02	2.87	3	3.16
heterozygous	3.13	2.94	3.07	3.04
homozygous	2.88	2.28	2.91	5.14

## Supplementary Table 2

Pathogenicity prediction and variant classification of the genetic variants. PhyloP scores vary between -14 and +6 and measure conservation at each individual base, sites predicted to be conserved are assigned a positive score, fast evolving sites are assigned a negative score.

PhastCons values vary between 0 and 1 and reflect the probability that each nucleotide belongs to a conserved element. Mutationtaster uses a Bayes classifier to predict the effect of a mutation from a feed a classifiers. SIFT damaging prediction score= <0.05. Provean deleterious score = <-2.5. PolyPhen-2 predictions are appraised qualitatively as benign or damaging. The ACMG consensus guidelines, including supporting evidence, are also shown.

Gene	Variant	Protein effect	EXaC	PhyloP	Phast Cons	Mutation taster	SIFT	Provean	PolyPhen-	ACMG	Classification
<i>ANKRD18A</i>	c.2395_2397del <sup>hom</sup>	p.E799del <sup>hom</sup>	Novel	0.772	0.965	Polymorphism	NA	Deleterious	NA	PM2, PP (segregation), PM6	Uncertain Significance
<i>GNE</i>	c.G1246A <sup>hom</sup>	p.G416R <sup>hom</sup>	Novel	5.343	1	Disease causing	Damaging	Neutral	Damaging	PM2, PP (segregation), PM6	Uncertain Significance
<i>FRMPD1</i>	c.C1526T <sup>hom</sup>	p.A509V <sup>hom</sup>	0.000371	-1.459	0	Polymorphism	Tolerated	Neutral	Benign	PM2, PP (segregation), PM6	Uncertain Significance

## **Supplemental Acknowledgements**

The members of the UK Genotyping and Phenotyping of Platelets Study Group are: Steve P. Watson (University of Birmingham); Andrew D. Mumford and Stuart J. Mundell (University of Bristol); Paul Gissen (University College London); Martina E. Daly (University of Sheffield); Will Lester and Justin Clark (Birmingham Women's Hospital); Mike Williams, Jayashree Motwani, Dianne Marshall, Natalie Lawson, Priscilla Nyatanga, Pat Mann, and Julie Kirwan (Birmingham Children's Hospital); Jonathan Wilde, Tracey Dunkley, Pam Green and April Greenway (University Hospital Birmingham); Michael Makris (Sheffield Haemophilia and Thrombosis Centre, Royal Hallamshire Hospital); Jeanette Payne (Paediatric Haematology Centre, Sheffield Children's Hospital); Sue Pavord, Richard Gooding and Rashesh Dattani (University Hospitals Leicester); Gerry Dolan Charlotte Grimley, Simone Stokley, Emma Astwood, Karyn Longmuir, Cherry Chang, Merri Foros, Michelle Kightley and Linda Trower (Nottingham University Hospitals); Jecko Thachil (previously Paula Bolton Maggs), Charlie Hay, Gill Pike, Andrew Will, John Grainger, Matt Foulkes, and Mona Fareh (Central Manchester National Health Service [NHS] Foundation Trust); Kate Talks, Tina Biss, Patrick Kesteven, John Hanley, Julie Vowles, Lesley Basey, Kevin Knaggs and Michelle Barnes (Newcastle upon Tyne Hospitals NHS Trust); Peter Collins, Rachel Rayment, Raza Alikhan, Ana Guerrero Rebecca Morris, and Dianne Mansell (Cardiff and Vale University Local Health Board); Cheng Hock Toh and Vanessa Martlew (Royal Liverpool University Hospitals); Elaine Murphy and Robin Lachmann (University College London Hospitals NHS Trust); Peter Rose, Oliver Chapman, Anand Lokare, Kathryn Marshall, and Naseem Khan (University Hospitals Coventry and Warwickshire); David Keeling, Nikki Curry and Paul Giangrande (Oxford Radcliffe Hospitals NHS

Trust); Steve Austin, David Bevan and Jayanthi Alamelu (Guys' and St. Thomas' NHS Foundation Trust); David Allsup, Andrew Fletcher, Katherine Gladstone, Jeanette Fenwick, Philippa Woods and Darren Camp (Hull and East Yorkshire Hospitals NHS trust, Castle Hill Hospital, Hull); Beki James, Suzie Preston and Chung Lai-Wah (Leeds Teaching Hospitals NHS trust); Angela Thomas (Royal Hospital for Sick Children Edinburgh); Bethan Myers (Lincoln County Hospital); Gillian Evans, Kim Elliot, Karen Davies, Charlotte Graham and Miranda Foad, (Kent & Canterbury Hospital).

Dr Neil Morgan has authorized authorship on behalf of the UK Genotyping and Phenotyping of Platelets Study Group.