



PGDIS CONFERENCE



6-8 May 2024
Kuala Lumpur
Malaysia

**PGT and
BEYOND...**

Cross-Border Reproductive Care:

Four Countries and A Healthy Baby Back
Home After PGT-M for *PIEZO2* Exon 3
Deletion

Dr Nood
Pornwaratt Niyomrattanakit
Jetanin Thailand



Cross Border Reproductive Care (CBRC)

*traveling from where you live to another
country to obtain reproductive services and
treatment*



CROSS BORDER REPRODUCTIVE CARE, *Human
Reproduction*, Volume 26, Issue suppl_1, 1 December 2011,

February 2023



14 months earlier...

PGT and
BEYOND...

Singapore: Tony Tan Women and Fetal Clinic & PLL Anaesthesia Clinic

Hong Kong: PGD Lab, Dept. Obstetrics & Gynecology CUHK

25.Oct.21

email inquiry

-Ultrasound,
trio-WES, low-
pass CNV
NGS, Fetal
DNA chip,
ECS

26.Oct.21

Test review &
counseling
email

08.Dec.21

BKK
Pre-clinical
counseling

21.Dec.21

fetal DNA
arrived BKK

09.Jan.22

Pre-clinical
work-up
completed

2 IVF cycles

Feb, Apr.22

PGT-A = 20
PGT-M = 18

Feb.23

A healthy baby
was born

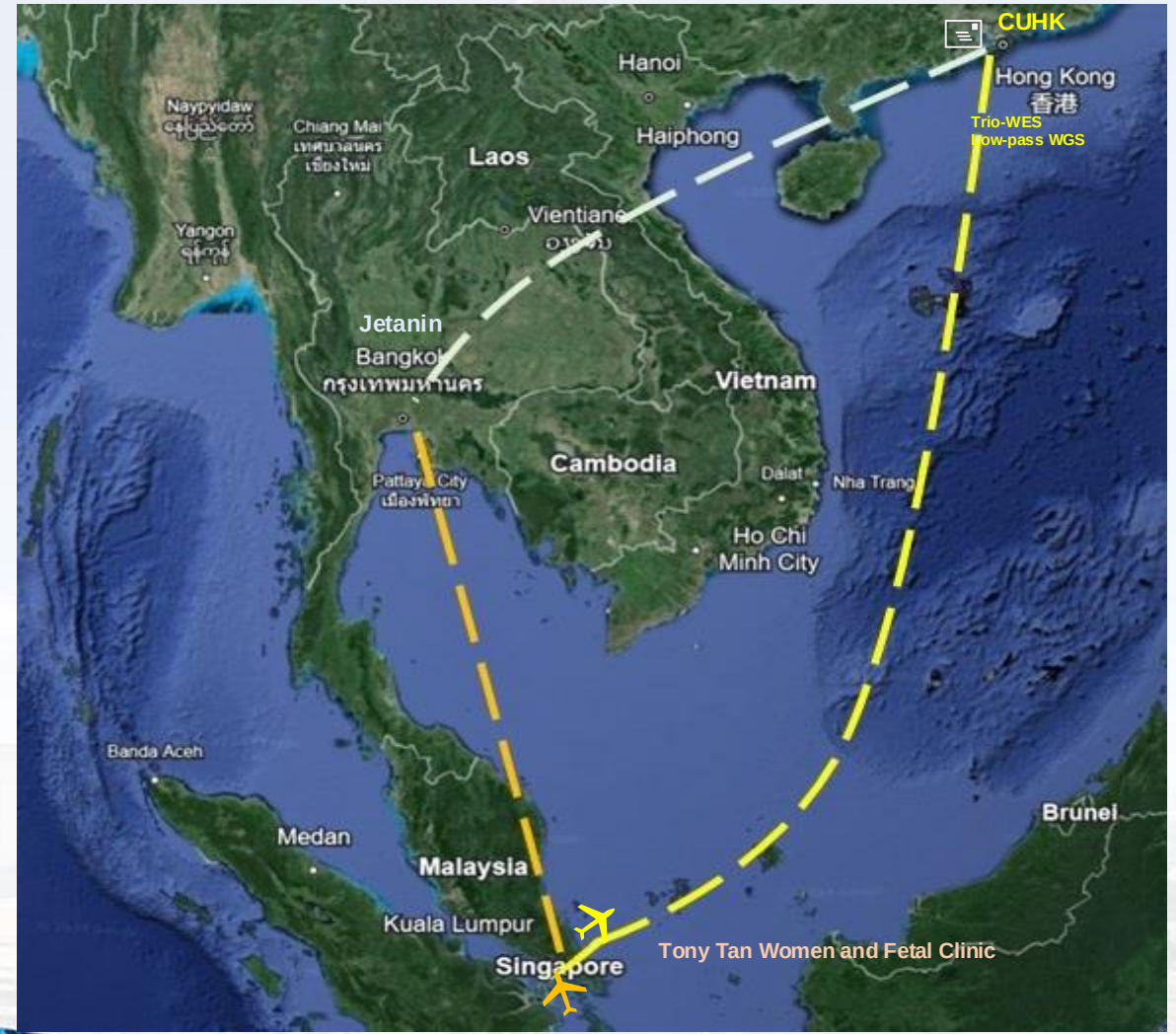
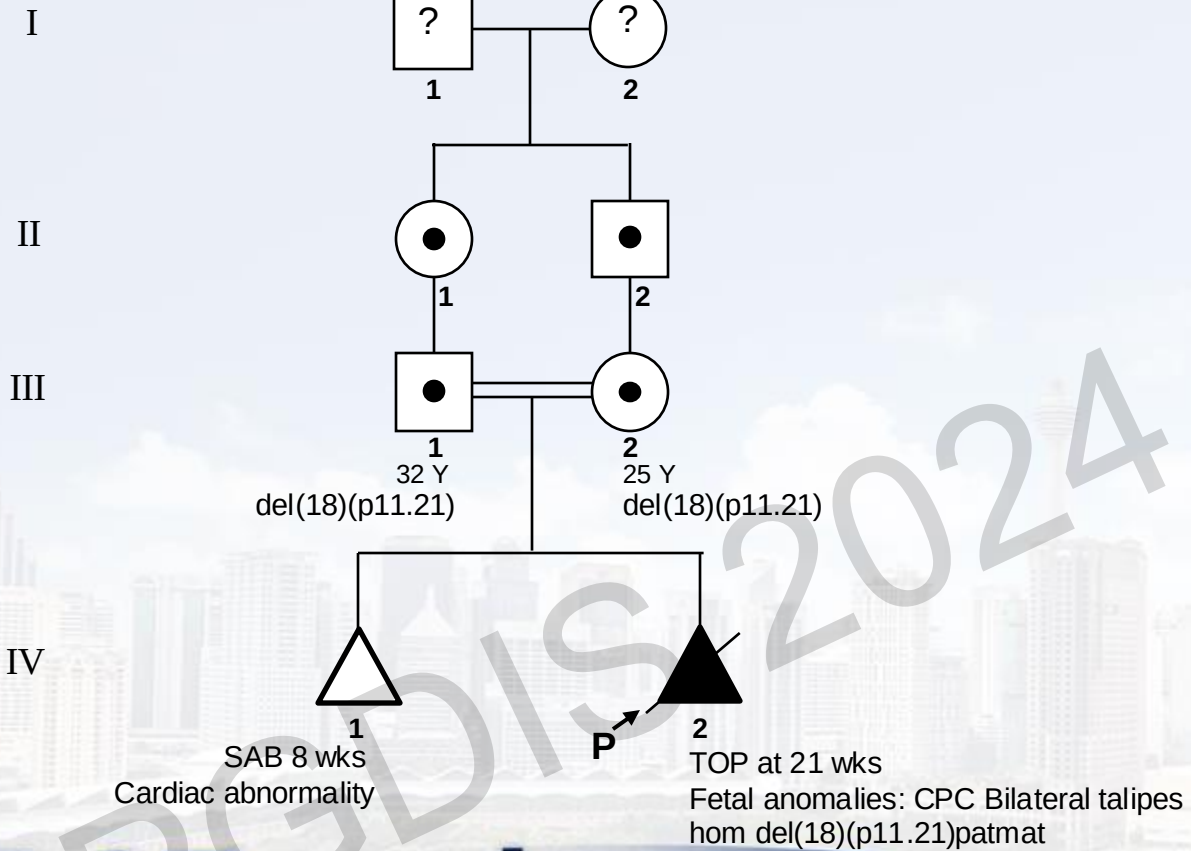
M: *del(18)(p11.21)*

F: *del(18)(p11.21)*

Fetus: *hom del(18) p11.21)patmat*

email to Dr
Richard Choy
CUHK for fetal
DNA

**PGT and
BEYOND...**



PGT and BEYOND...

Feasibility Test PGT-M Preclinical Work-up

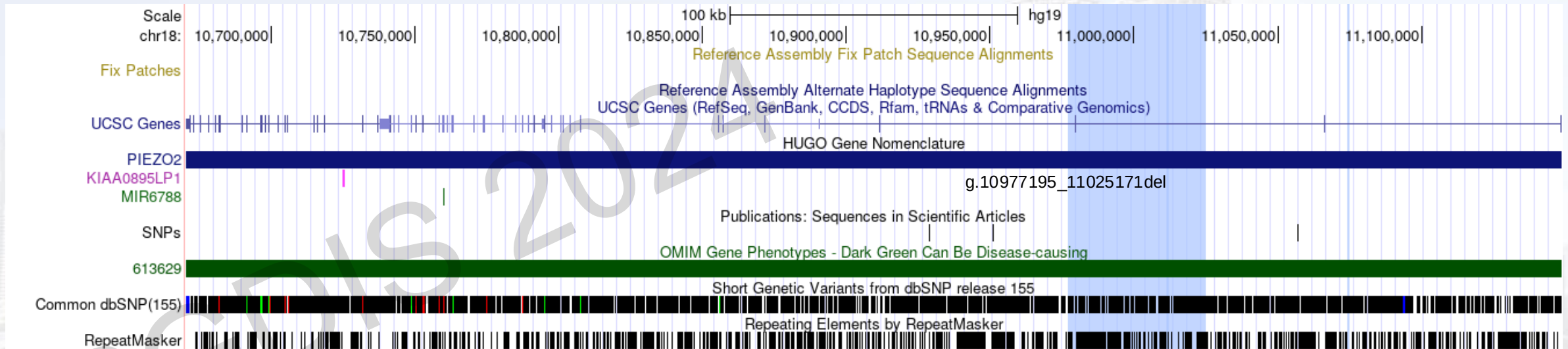
11 STR markers

2 STS direct testing

GAP PCR

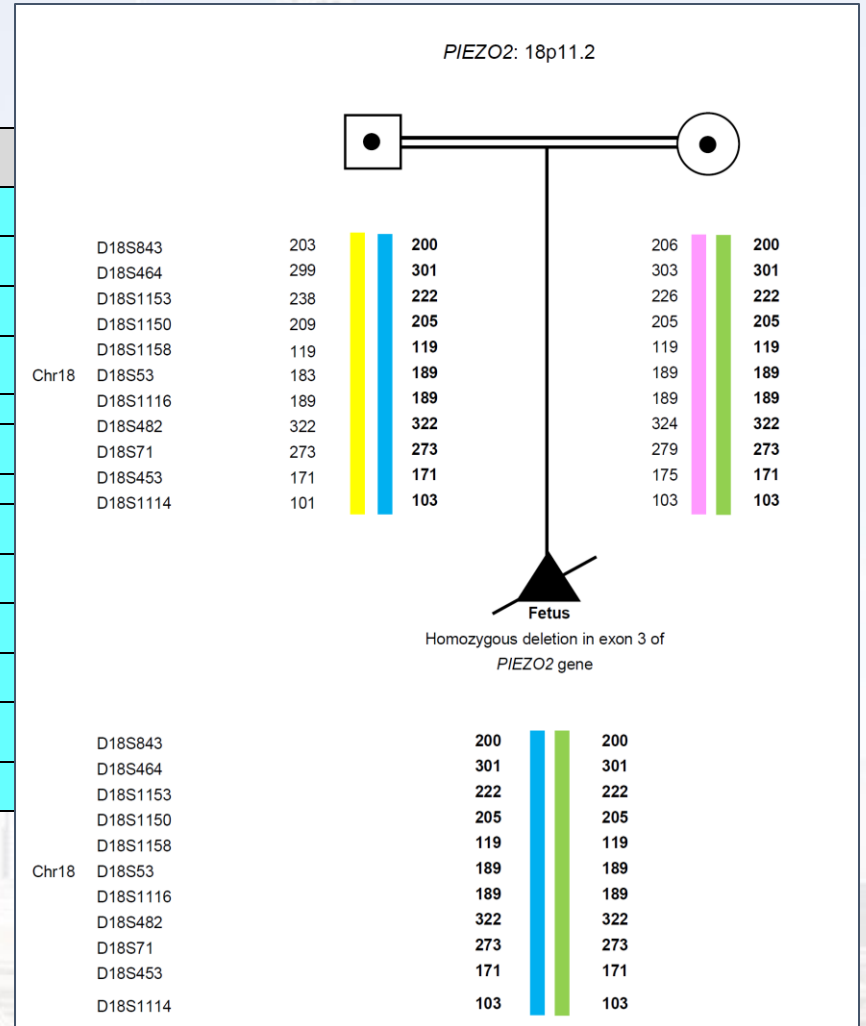
STS 73320

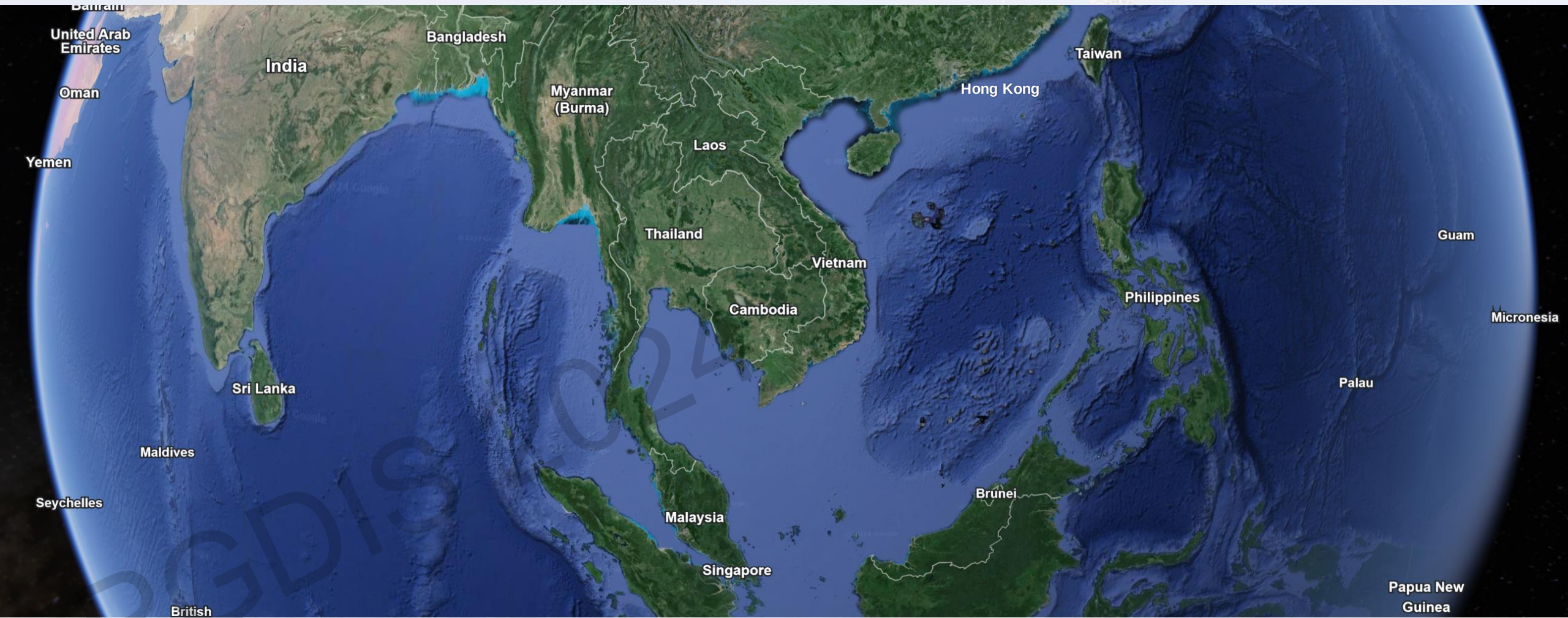
STS 136786



PGT and
BEYOND...

Marker	Marker test	Marker position (GRCh37/hg19)	Chr. banding	Female (Al Nusrat)		Male (Syed HI)		Affected fetus (Reference)	
1	D18S843-FAM	8,613,636-8,613,983	18p11.22	200	206	200	203	200	200
2	D18S464-FAM	9,961,258-9,961,571	18p11.22	301	303	301	299	301	301
3	D18S1153-HEX	10,133,108-10,133,448	18p11.22	222	226	222	238	222	222
4	D18S1150-TAMRA	10,246,591-10,246,929	18p11.22	205	205	205	209	205	205
3'flanking <i>PIEZO2</i> gene									
5	D18S1158-FAM	10,742,702-10,742,907	18p11.22	119	119	119	119	119	119
5'flanking <i>PIEZO2</i> gene									
6	D18S53-FAM	11,492,730-11,492,931	18p11.21	189	189	189	183	189	189
7	D18S1116-HEX	11,556,892-11,557,196	18p11.21	189	189	189	189	189	189
8	D18S482-HEX	11,846,213-11,846,539	18p11.21	322	324	322	322	322	322
9	D18S71-TAMRA	12,596,866-12,597,248	18p11.21	273	279	273	273	273	273
10	D18S453-TAMRA	12,914,783-12,914,961	18p11.21	171	175	171	171	171	171
11	D18S1114-FAM	12,923,931-12,924,146	18p11.21	103	103	103	101	103	103





THANK YOU

PGDIS 2024

**PGT and
BEYOND...**