Family number	Patient number	Gender	Age at investigation (years)	Age at diagnosis of FPLD3 (years)	PPARG variant (NM_015869)	Protein localisation of the PPARG variant	Genetically confirmed Parental origin of the <i>PPARG</i> variant
1	1	F	32	13	Heterozygous p.Cys180Tyr	DBD	Maternal
	2	F	58	39			Unknown
2	3	М	16	10	Heterozygous p.Leu339*	LBD	Paternal
	4	М	44	40			Paternal
3	5	F	19	16	Heterozygous p.Arg262Gly	LBD	Unknown
4	6	F	31	19	Heterozygous p.Arg165Thr	DBD	Maternal
	7	F	56	45			Paternal
	8	М	83	83			Unknown
5	9	F	49	31	Heterozygous p.Gly211Glu	LBD	Unknown
6	10	F	49	44	Heterozygous p.Arg425Cys	LBD	Unknown
7	11	М	31	21	Heterozygous p.Pro495Leu	LBD	Maternal
	12	F	55	46			Unknown
8	13	М	16	16	Heterozygous p.Pro234Thr	LBD	Maternal
	14	F	38	34			Paternal
9	15	F	0	0	Heterozygous p.Glu352Gln	LBD	Maternal
	16	F	35	23			Unknown
10	17	F	16	3	Homozygous p.Tyr173Cys	DBD	Maternal and paternal
	18	F	41	38	Heterozygous p.Tyr173Cys		Unknown
11	19	F	60	49	Heterozygous p.lle434Thr	LBD	Unknown
12	20	М	70	61	Heterozygous p.Arg240Trp	LBD	Unknown
13	21	М	19	18	Heterozygous p.Arg425Cys	LBD	Maternal
	22	М	46	45			Unknown
	23	F	48	46			Unknown
	24	F	51	48			Unknown
14	25	F	27	26	Heterozygous p.Gln443*	LBD	Unknown
15	26	F	52	52	Heterozygous p.Val318Met	LBD	Unknown

 Table 1. Patients, molecular diagnosis and parental inheritance of PPARG
 variants

LBD= ligand binding domain; DBD= DNA binding domain. Fetal dysmetabolic environment is defined by presence of a maternal *PPARG* variant and/or diagnosis of diabetes or hypertentension during pregnancy or hypertriglyceridemia before pregnancy

Metabolic characteristics	Number (%)	Mean (SD)	Median	Range	Q25
Lipodystrophic phenotype {N=24}	23 (95.8%)				
Muscular hypertrophy	20 (87.0%)				
Android distribution of body fat	18 (78.2%)				
Acanthosis nigricans	13 (56.5%)				
Age at diagnosis of clinical lipodystrophy (years) {N=23}		33.0 (14.6)	37	10-61	16
Female {N=16}		34.6 (12.6)	38.5	13-50	22.3
Male {N=7}		29 (19.0)	18	10-61	16
BMI (kg/m ²) {N=23}		26.2 (5.0)	26.3	16.7-39.8	23
Female {N=16}		26.3 (5.3)	25.3	16.7-39.8	23
Male {N=8}		25.9 (4.6)	26.8	20-32.9	21.0
BMI (kg/m ²) > 25 {N=23}	14 (60.9%)				
Female {N=15}	9 (60.0%)				
Male {N=8}	5 (62.5%)				
BMI (kg/m ²) > 30 {N=23}	3 (13.0%)				
Female {N=15}	2 (13.3%)				
Male {N=8}	1 (14.3%)				
Diabetes {N=24}	22 (91.7%)				
Female {N=16}	15 (93.8%)				
Male {N=8}	7 (87.5%)				
Age at diagnosis of diabetes (years) {N=21}		27.3 (19.1)	24	13-83	18.0
Female {N=15}		24.3 (13.0)	26	13-38	18
Male {N=7}		30.3 (24.6)	18	13-83	15
Insulin therapy {N=22}	12 (54.5%)				
HbA1c (%) {N=22}		8.3 (2.3)	8.1	5.4-13.2	6.6
HbA1c (mmol/mol) {N=22}		67.5 (25.2)	63.9	35.5-120	48.1
Hypertension {N=24}	14 (58.3%)				
Age at diagnosis of hypertension (years) {N=12}		27.8 (14.6)	28	18-46	19.5
Female {N=9}		31.7 (7.4)	32	21-46	26.5
Male {N=3}		22 (6.9)	18	18-30	18
Hypertriglyceridemia {N=23}	18 (78.2%)				
Female {N=16}	14 (87.5%)				
Male {N=7}	4 (57.1%)				
Plasma levels of triglycerides (mmol/L)		13 (14.4)	5.6	1.9-54.2	3.4
Female {N=14}		13.7 (16)	5.6	1.7-54.2	3.2
Male {N=4}		9.9 (2.9)	10.2	6.8-12.4	7.1
Antecedent of acute pancreatitis {N=24}	6 (25 %)				
	all females				
Hepatic steatosis {N=24}	17 (70.8%)				
Female {N = 16}	13 (81.3%)				
Male {N = 8}	4 (50%)				

Reproductive phenotype of postpubertal women with FPLD3 (N=17)

Age of studied women (years) {N=17}	48 (31.5)	
Age at menarche (years) {N=12}	12 (10.5)	
Diagnosis of PCOS {N=16}	12 (75%)	
Spaniomenorrhea/amenorrhea	8 (50%)	
Hirsutism	13 (81.2%)	
Polycystic ovaries (ultrasound) {N=16}	11 (68.8%)	
Women trying to conceive {N=15}	12 (80%)	
Women trying to conceive who obtained at least one pregnancy {N=12}		
Women who obtained pregnancy after treatment for impaired fertility {N=11}		
Total number of pregnancies	25	
Number of pregnancies per women	2.3 (0)	
Total number of live births	19	
Number of live births per women	1.7 (0)	
Obstetrical complications {N=11}		
Diabetes diagnosed before pregnancy	5 (45.4%)	
Hypertension diagnosed before pregnancy	4 (36.3%)	
Hypertriglyceridemia diagnosed before pregnancy	10 (90.9%)	
Gestational diabetes	3 (27.3%)	
Preeclampsia	3 (27.3%)	

Data were from all patients except Patient 15, a premature newborn who died 24h after birth (ref Castell et al 2012). The number of subjects with available data is indicated in brackets. Hypertriglyceridemia is defined by serum triglycerides > 2 mmol/L; Diagnosis of liver steatosis is based on echographic findings. PCOS : polycystic ovary syndrome

Table 3. Perinatal characteristics of patients with PPARG variants

Patients characteristics {N	= 17}			
Gestational age at birth (WA) {N = 14}		36.0 (32.5)		
Preterm birth {N = 17}		9 (52.9%)		
Birth measurements				
	Weight (g) {N = 15}	2200 (1600)		
	Height (cm) {N = 9}	49.0 (44.0)		
Small for gestational age {N = 14}		6 (42.9%)		
Large for gestational age {N = 14}		5 (35.7%)		
Neonatal hypoglycemia {N = 15}		2 (13.3%)		
Obstetrical complications				
Amniotic fluid disorder {N = 8}				
	Oligohydramnios	2 (25%)		
	Polyhydramnios	1 (12.5%)		
Preeclampsia {N = 16}		1 (6.3%)		

Results are expressed as median (Q25) or number (%)

Number of subjects with available data is indicated in brackets

WA, weeks of amenorrhea

Preterm birth refers to gestational age at birth below 37 weeks of amenorrhea

Small for gestational age is defined by a birth weight < 10th percentile for gestational age

Large for gestational age is defined by a birth weight > 90th percentile for gestational age

Neonatal hypoglycemia is defined as a plasma glucose level of less than 1.65 mmol/L in the first 24 hours of life

Table 4. Neonatal characteristics of patients with heterozygous PPARG variants according to their prenatal metabolic environment

	Presence of a fetal dysmetabolic environment (n=8)	Absence of fetal dysmetabolic environment (n=9)	р
Maternal age at delivery (years)	25 (24.0) {n=8}	25 (23.3) {n=8}	0.45
Diabetes during pregnancy	5 (62.5%) {n=8}	0 (0%) {n=8}	0.01
Smoking during pregnancy	1 (12.5%) {n=8}	0 (0%) {n=9}	0.47
Gender (number of female / male patients)	5/3	7/2	
Term of delivery (weeks of amenorrhea)	37 (34) {n=7}	36 (35.3) {n=7}	0.57
Preterm birth	3 (37.5%) {n=8}	6 (66.7%) {n=9}	0.35
Birth weight (g)	3400 (2700) {n=7}	2075 (1785) {n=8}	0.04
Large for gestational age	5 (71.4%) {n=7}	0 (0%) {n=7}	0.02
Small for gestational age	0 (0%) {n=7}	6 (85.7%) {n=7}	0.005
Neonatal hypoglycemia	1 (14.3%) {n=7}	1 (12.5%) {n=8}	1

Results are expressed as median (Q25) or number

(%)

The number of subjects with available data is indicated in brackets

Fetal dysmetabolic environment is defined by diagnosis of maternal diabetes, hypertension during pregnancy or hypertriglyceridemia before pregnancy

Preterm birth refers to gestational age at birth < 37 weeks of amenorrhea

Large for gestational age is defined by a birth weight > 90th percentile for gestational age

Small for gestational age is defined by a birth weight below the 10th percentile for gestational age

Neonatal hypoglycemia is defined as plasma glucose level < 1.65 mmol/L in the first 24 hours of life