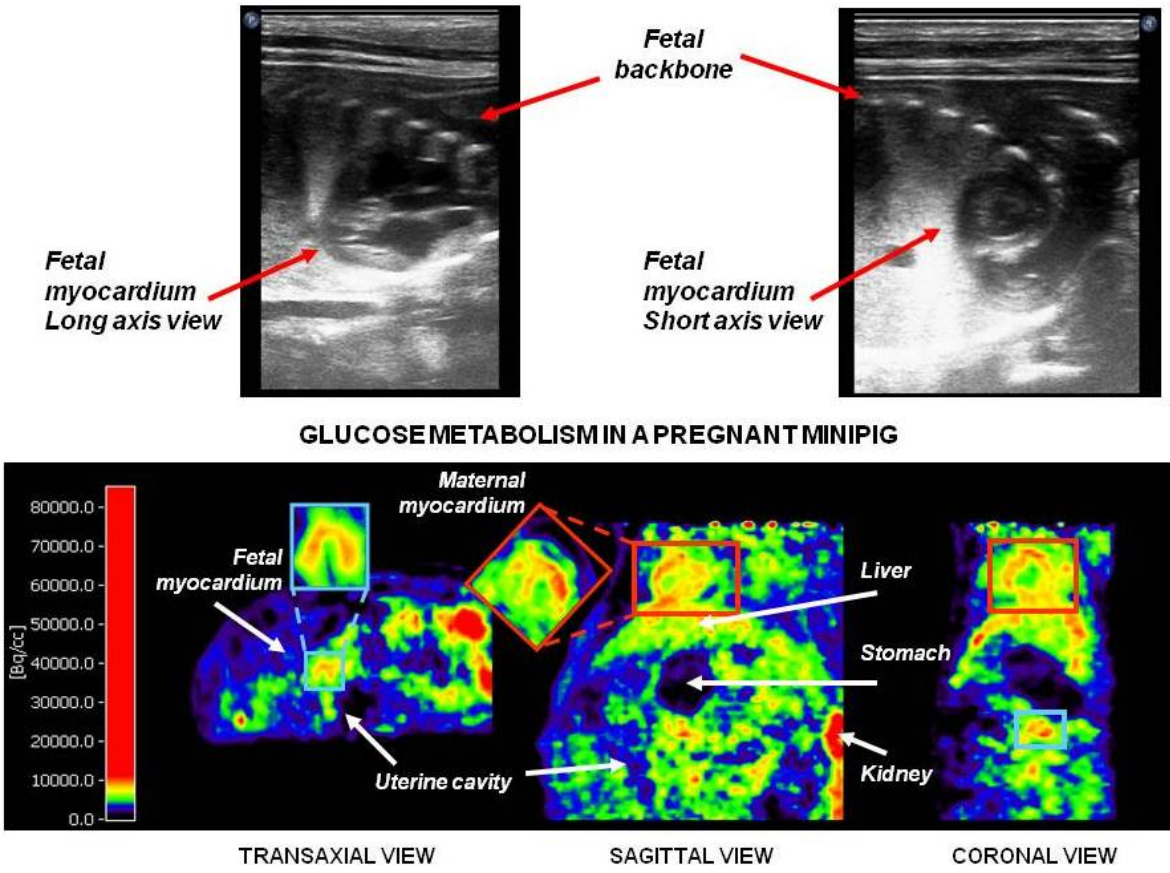
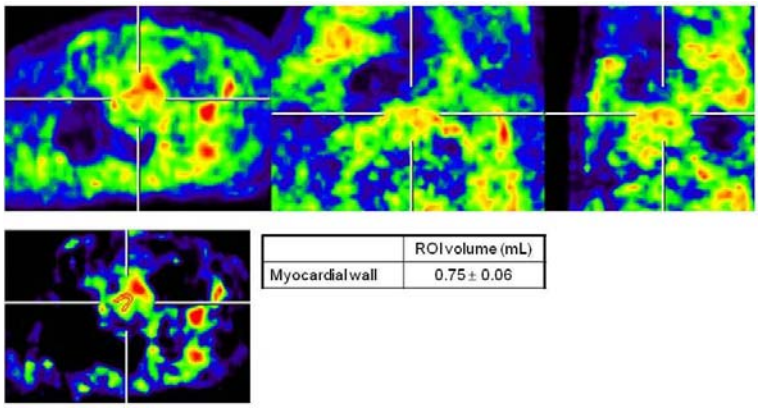


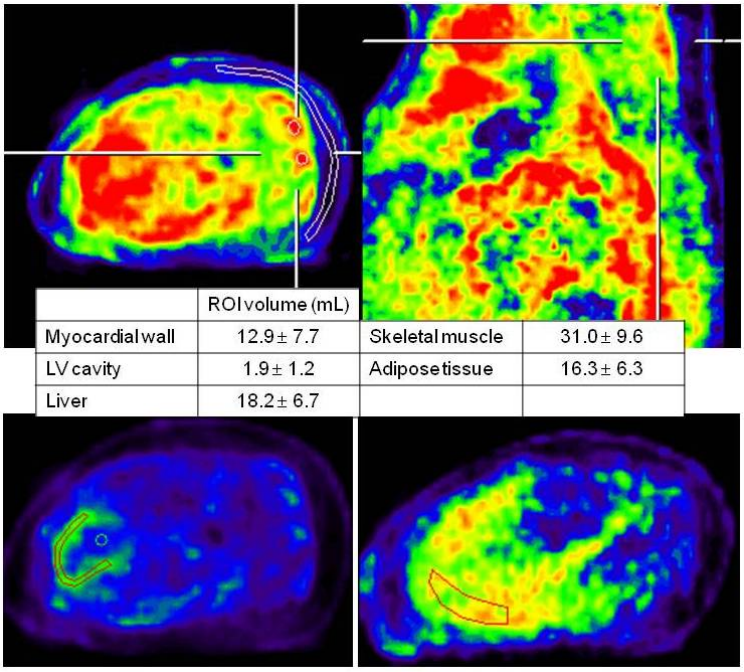
Supplemental Figure 1. Ultrasound (top panels) and PET images (bottom panels) of the uterine region, showing the fetal heart, and the distribution of ^{18}F-FDG in the fetal myocardium, and in maternal organs.

A



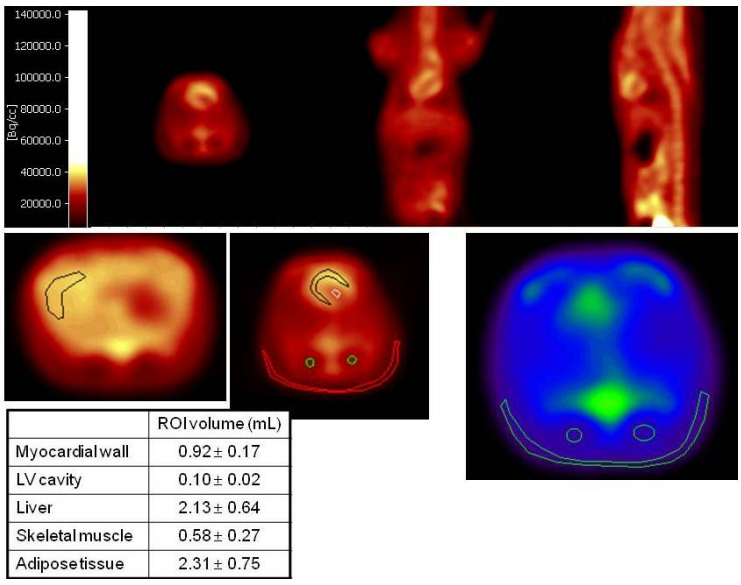
	ROI volume (mL)
Myocardial wall	0.75 ± 0.06

B



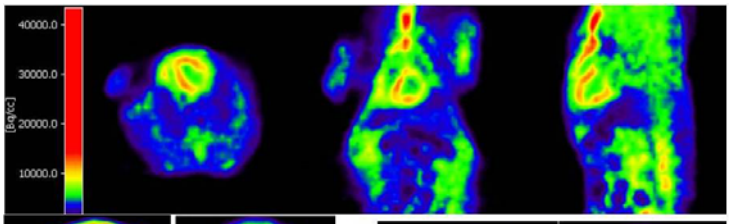
	ROI volume (mL)		
Myocardial wall	12.9 ± 7.7	Skeletal muscle	31.0 ± 9.6
LV cavity	1.9 ± 1.2	Adipose tissue	16.3 ± 6.3
Liver	18.2 ± 6.7		

C



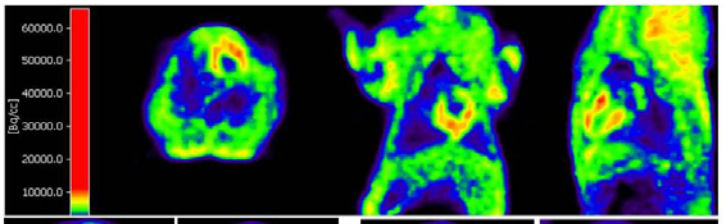
	ROI volume (mL)
Myocardial wall	0.92 ± 0.17
LV cavity	0.10 ± 0.02
Liver	2.13 ± 0.64
Skeletal muscle	0.58 ± 0.27
Adipose tissue	2.31 ± 0.75

D



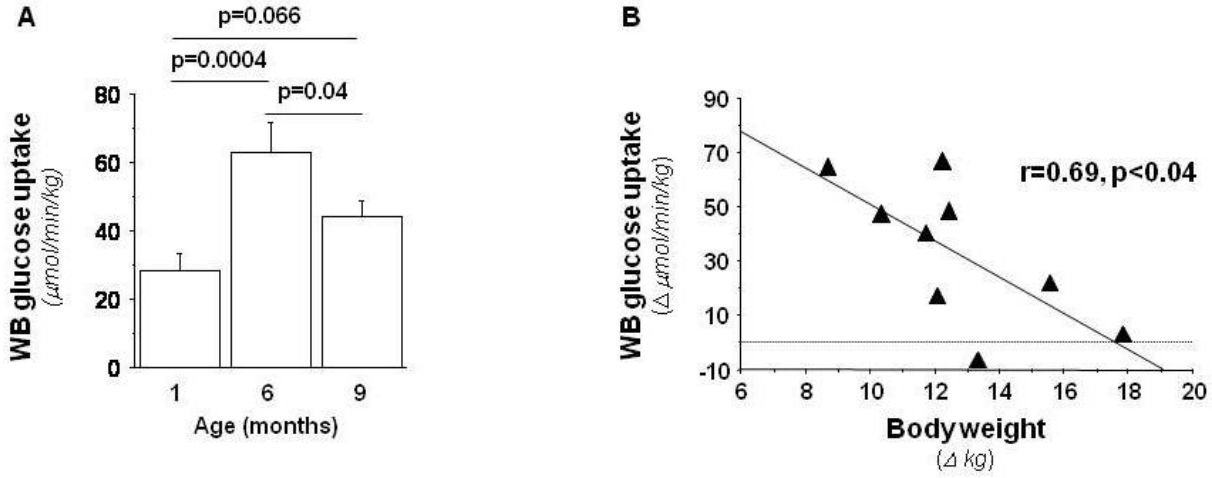
	ROI volume (mL)
Myocardial wall	1.30 ± 0.20
LV cavity	0.14 ± 0.02
Liver	2.53 ± 0.28
Skeletal muscle	0.44 ± 0.08
Adipose tissue	2.45 ± 0.25

E



	ROI volume (mL)
Myocardial wall	5.22 ± 0.40
LV cavity	0.40 ± 0.02
Liver	14.51 ± 1.99
Skeletal muscle	1.17 ± 0.29
Adipose tissue	5.19 ± 0.83

Supplemental Figure 2. Typical images obtained in the fetus (A, in a second example different from that in Supplemental Figure 1), in the mother (B), and in the offspring at one (C), six (D), and nine months of age (E). Regions of interest (ROIs) obtained at the level of each organ are shown. All ROIs were drawn deeply in each tissue and distant from its borders to minimize cross contamination between tissues. The tables embedded in each figure panel report the typical ROI volumes in each organ and in each age group.



Supplemental Figure 3. The age dependency of insulin sensitivity is shown in A, and its changes between 1 and 6 months of age in the nine animals undergoing repeated studies were found to be correlated with respective changes in body weight (B).

Supplemental Table 1. Body weight and echocardiography parameters

	One month old offspring		Six month old offspring		Nine month old offspring	
	Female *n=5*	**Male** *n=6*	**Female** *n=4*	**Male** *n=5*	**Female** *n=4*	**Male** *n=4*
BW (kg)	2.5 ± 0.2	2.5 ± 0.2	15.0 ± 1.5*	15.6 ± 1.4*	25.0 ± 2.2*§	27.6 ± 4.3*§
LVEF (%)	77 ± 1	78 ± 1	80 ± 1‡	78 ± 2	78 ± 1	78 ± 2
EDD (mm)	16.9 ± 0.3	15.9 ± 0.6	29.3 ± 1.7*	32.3 ± 0.9*	34.6 ± 1.9*§	34.5 ± 1.0*
ESD (mm)	9.7 ± 0.2	9.0 ± 0.4	15.5 ± 0.7*	17.6 ± 0.8*	18.8 ± 1.3*§	18.8 ± 1.0*
FS (%)	42 ± 1	43 ± 1	47 ± 1	46 ± 2	46 ± 1	46 ± 2
EDV (ml)	8.3 ± 0.4	7.1 ± 0.7	33.4 ± 4.9*	42.1 ± 2.8*	50.2 ± 6.6*§	49.3 ± 3.3*
ESV (ml)	1.9 ± 0.1	1.6 ± 0.2	6.7 ± 0.7*	9.3 ± 1.0*	11.1 ± 1.9*§	11.0 ± 1.5*
Thickness (mm)	3.7 ± 0.1	3.6 ± 0.2	5.7 ± 0.1*	6.1 ± 0.2*	6.5 ± 0.2*§	6.4 ± 0.1*
LV mass (g)	8.5 ± 0.4	7.6 ± 0.8	35.7 ± 3.5*	45.7 ± 1.9*#	56.1 ± 7.1*§	54.4 ± 3.4*§
LV mass (g/kg)	3.4 ± 0.2	3.1 ± 0.3	2.4 ± 0.2*	3.0 ± 0.3	2.4 ± 0.2*	2.4 ± 0.5
CO (l/min)	1.0 ± 0.1	0.9 ± 0.1	2.5 ± 0.3*	2.4 ± 0.3*	3.4 ± 0.6*	2.6 ± 0.2*
SV (ml)	6.4 ± 0.4	5.5 ± 0.5	26.8 ± 4.2*	32.8 ± 2.4*	39.2 ± 4.8*§	38.3 ± 1.9*§

BW = body weight, LV = left ventricular, EF = ejection fraction, EDD/ESD = end diastolic and systolic diameters, FS = fractional shortening, EDV/ESV = end diastolic and systolic volumes, CO = cardiac output, SV = stroke volume; the LV mass is expressed also per kg of body weight. #$p=0.03$ vs female animals; *$p<0.05$, ‡$p=0.1$ vs one month, and §$p<0.05$ vs six month old animals