

Expanded View Figures

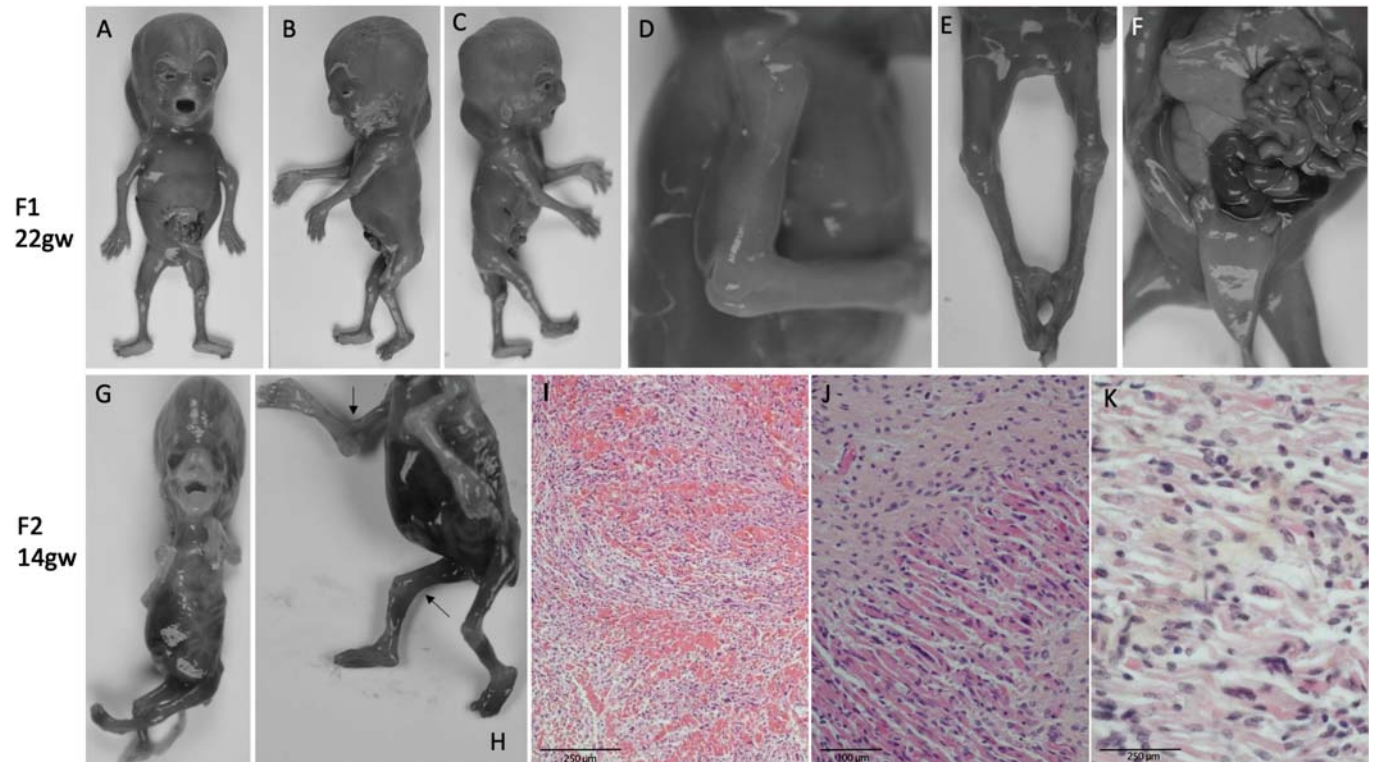


Figure EV1. Images and muscle histology of Foetuses 4 and 5.

Images and muscle histology of Foetus 4 (22 gw, A-F) and Foetus 5 (13,2 gw, G-K). (A-C) Face and profile pictures showing cystic hygroma, facial dysmorphism with hypertelorism, high and large forehead and low-set ears. (D) Right arm showing elbow ankylosis. (E) Lower limbs showing bilateral knee ankylosis. (F) Autopsy showing pulmonary hypoplasia and distended bladder. (G, H) Face and profile pictures showing contractures of four limbs with arthrogyrosis, multiple pterygia (colli, elbows, knees) and generalised muscular atrophy. (I-K) Histological analysis showing rare muscular fibres of irregular in size, with an excess of conjunctive tissue. Both foetuses present intra-uterine growth retardation and hydrops fetalis.

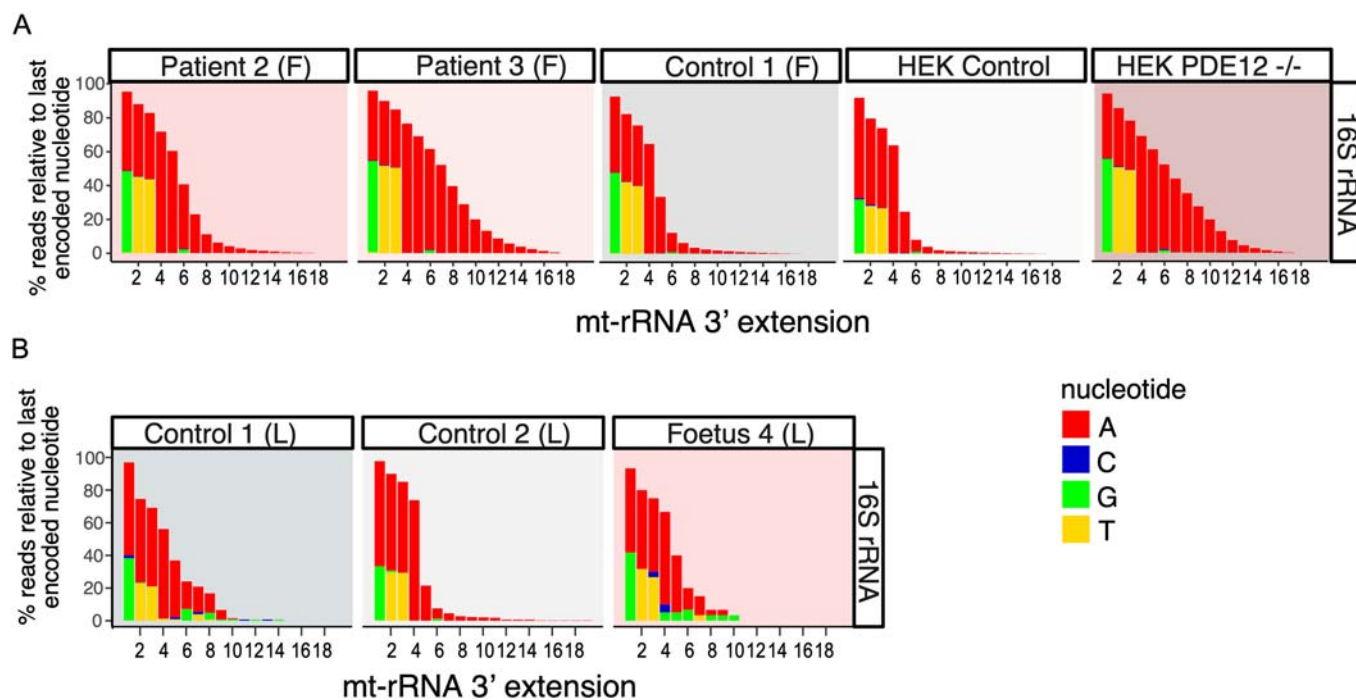
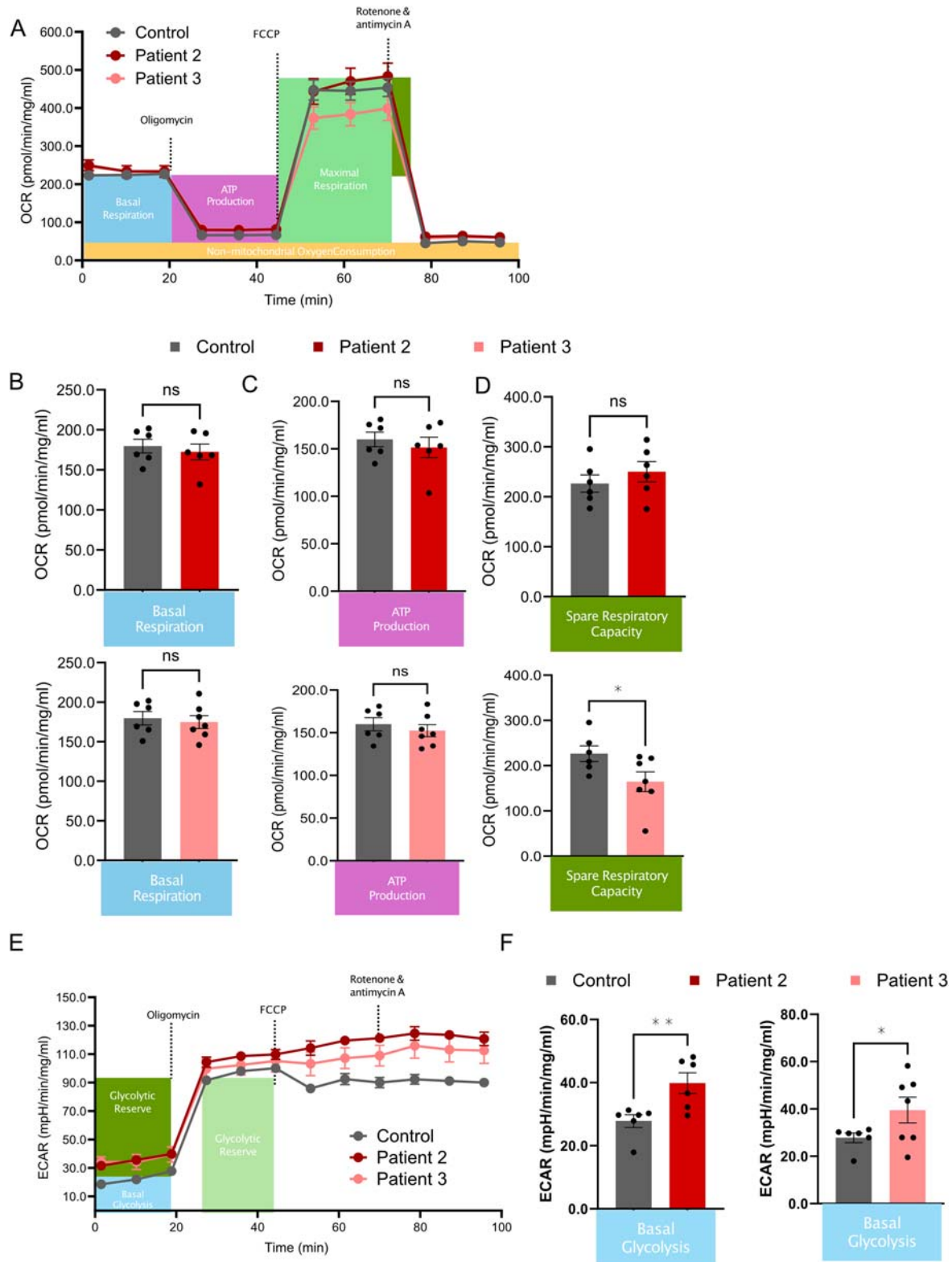


Figure EV2. Spurious 3' adenylation of 16S rRNA.

(A) Representation of reads beyond the encoded nucleotides for 16S rRNA for Patient 2 and Patient 3 fibroblasts, fibroblast control, HEK PDE12 KO cells and control HEK cells ascertained by MPAT-Seq. ($n = 1$). (B) Representation of reads beyond the encoded nucleotides for 16S rRNA for RNA extracted from liver of Foetus 4 liver and age-matched control liver ascertained by MPAT-Seq. ($n = 1$). Source data are available online for this figure.



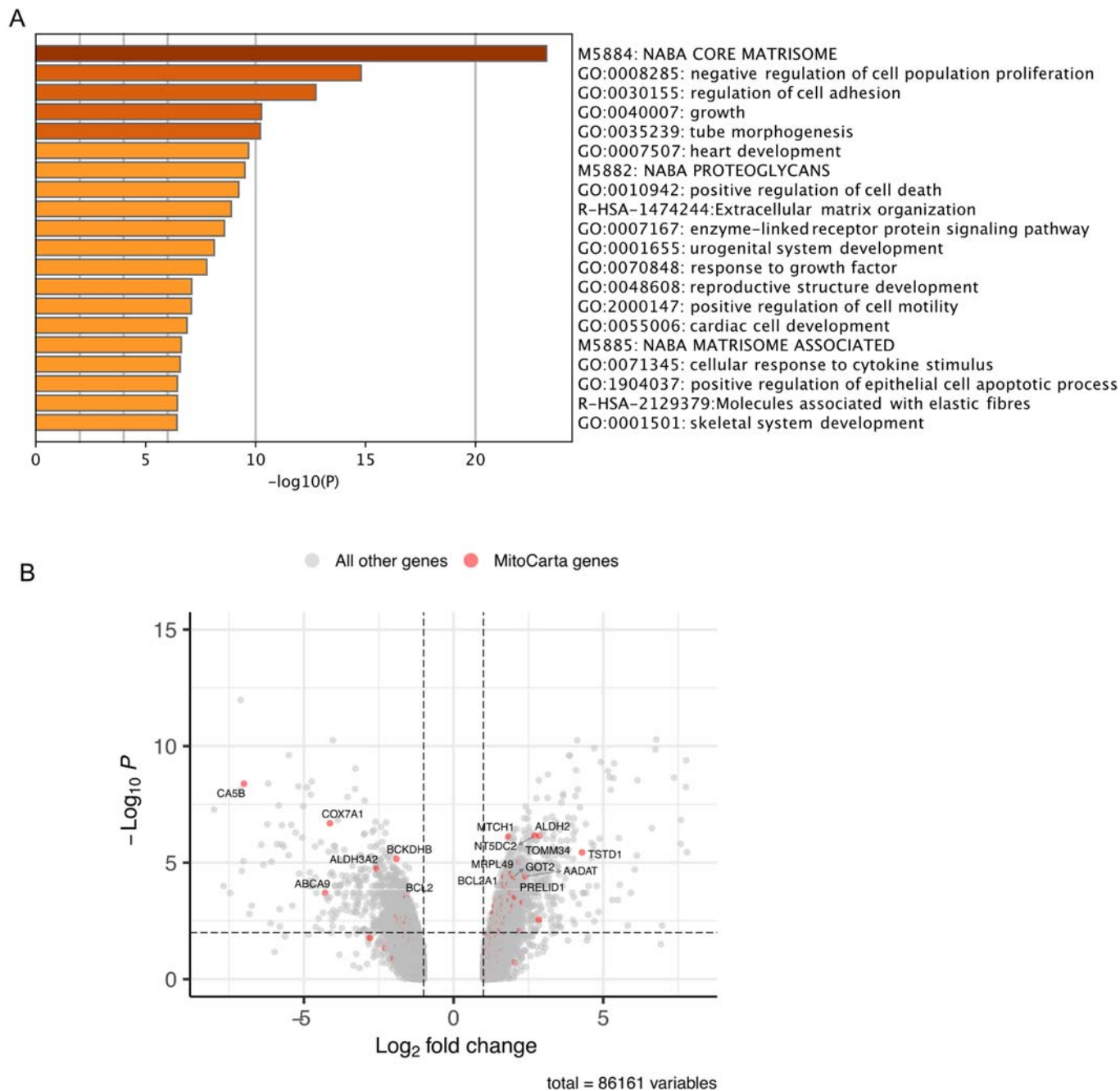


Figure EV4. Gene expression analysis in patient fibroblasts.

(A) System-level analysis of Affymetrix Clariom D transcriptome arrays comparing the RNA levels in Patients 2 and 3 with unaffected controls. Statistical analysis was done using the ANOVA test and FDR-corrected values. The multiple-testing correction is based on the approach of Benjamini, Hochberg, and Yekutieli. (B) Volcano plot showing the differences in gene expression between RNA from Patients 2 and 3 compared with unaffected controls. Red dots represent genes that localise inside the mitochondria, according to MitoCarta, with the most significantly altered genes labelled. Statistical analysis as described for EV4A. ($n = 1$ biological replicate).