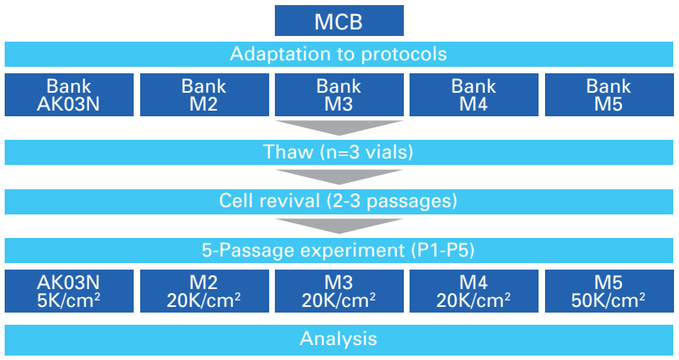
Superior performance of StemFit® AK03N for the culture of induced pluripotent stem cells

-The Cell and Gene Therapy Catapult conducted the comparative cultivation testing with competitors' products-

Experimental Layout and Results



Culture cycle (feeding scheme)

AK03N (7days)	M2 (5days)	M3 (5days)	M4 (5days)	M5 (3+4days)
Feed d1/4/5/6	Feed d1/2/3/4/5	Feed d1/2/3/4/5	Feed d1/2/3/4/5	Feed d1+pssg (d3)+d4

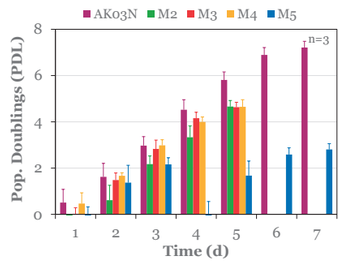
- Culturing CGT-RCiB10 in adherent culture with vitronectin.
- CGT-RCiB10 is a HLA-Homo iPSC line from a cGMP pre-seed lot.
- M2, M3, M4, M5 are commercially available iPSC culture media.
- Passage and feeding schedule was as per manufacturer protocol and expansion protocol.
- All experiment in this poster were designed and performed by CGT Catapult.

Table 1. Features of StemFit® AK03N observed in current evaluation

Cell Growth	**Easy expansion (Figure 1)**
Stability	**Consistent gene expression profile throughout 5 passages (Figure 2)**
	Normal karyotype (Table 2)
Metabolic Profile	**Low lactate accumulation in culture supernatant (Figure 3)**
Pluripotency	Maintenance of pluripotency (available in CGT Catapult full poster)
	Confirmed potency of differentiation into the 3-germ layers of Embryoid Body (available in CGT Catapult full poster)

Figure 1. Easy expansion

(A) Daily profile of Population Doublings (PD)



(B) Average Population Doublings (PD) throughout 5 passages

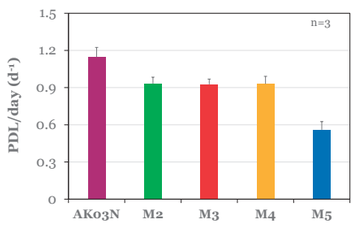


Figure 2. Consistent gene expression profile

Gene expression data profiled employing the TaqMan® ScoreCard™ assay (n=3)

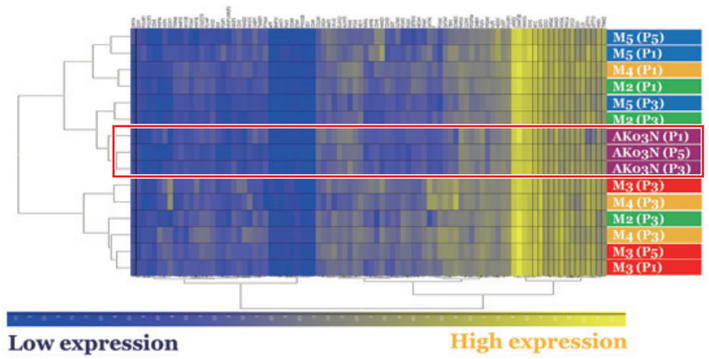


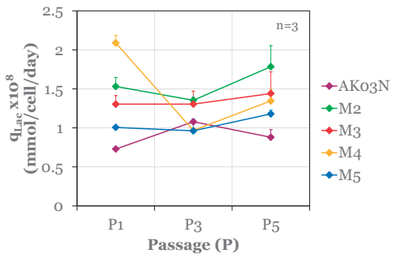
Table 2. Result of karyotyping (CGH array) analysis after expansion

	AK03N	M2	M3	M4	M5
Bank	Normal	Normal	Normal	Normal	Normal
+P9/P10	Normal	Normal	Abnormal	Normal	Normal

Figure 3. Low lactate accumulation

(A)

(B) Quantification by Cubian HT-270.



The Cell and Gene Therapy Catapult

- The Cell and Gene Therapy Catapult (CGT Catapult) is a non-for-profit centre of excellence to advance the growth of the UK cell and gene therapy industry, by bridging the gap between scientific research and full-scale commercialisation
- The Industrialisation group of CGT Catapult aims to develop cost-effective processing platforms for the commercial manufacture and industrialisation of iPSC-derived cell therapy products using 2D and 3D culture systems
- Detailed methods and results are available at CGT Catapult website **https://ct.catapult.org.uk/**