SUPPLEMENTAL MATERIAL

Table S1. Number of samples and cell batches used for functional assessment.

A

Experiment	Control 1	Control 2	Control 3	PAIVS 1	PAIVS 2	PAIVS 3
Day 7 contractility	37 (12)	40 (11)	24 (3)	42 (13)	47 (13)	7 (5)
Day 11 contractility	26 (10)	32 (9)	24 (3)	32 (11)	39 (11)	4 (4)
Day 14 contractility	20 (10)	23 (6)	23 (3)	28 (10)	38 (11)	3 (3)
Contractile kinetics	4 (4)	4 (4)	3 (3)	4 (4)	4 (4)	2 (2)
Calcium sensitivity	5 (5)	4 (4)	3 (3)	6 (4)	6 (5)	2 (2)

B

Experiment	Control 1	Control 2	Control 3	PAIVS 1	PAIVS 2	PAIVS 3
Electrophysiological Parameters	4	4	3	3	5	3

(A) Table showing number of samples (number of cell batches) used for each experiment for hCTS. (**B)** Table showing number of samples used for each experiment for hCAS.

Table S2. List of forward and reverse primers used in RT-qPCR.

Gene	Forward Sequence	Reverse Sequence
ACTN2	GTACGTCTCTTGCTTCTACCAC	CTTCCATCAGCCTCTCATTCTC
CSRP3	GAAGTTTGGAGAGTCCGAGAAG	ATGGCACAGCGGAAACA
FHL2	GTGGCAGTAGTCTGTGGAATAA	GTCACTGATGCTCCCATTCTAA
HOPX	GCAGATCCGTCACAGACTAAG	GTTAAGCGGAGGAGAGAAACA
MYH6	CAGCACAGAGCTCTTCAAGC	GTCCGAGATTTCCTCCTGAA
MYH7	GAGACTGTCGTGGGCTTGTA	CTTCTCAATAGGCGCATCAG
MYL2	CAGAACAGGGATGGCTTCAT	CGGAGCCTCCTTGATCATTT
NPPA	ATGAGCTCCTTCTCCACCAC	TCCAGCAAATTCTTGAAATCC
NPPB	TCCTGCTCTTCTTGCATCTG	GTAACCCGGACGTTTCCAA
PDLIM3	TGCGCAGGACAGGATTAAAG	GGGCTTTCCCATCTTCAGATAC
SORBS2	GAGCTGTGACGATCTCCTAAAC	CTTGGAGTCCTCCTCACATAAC
SYNPO2L	CTCTTCCGTCTAAGGCATGAAT	TCCCAAAGTGCTGGGATTAC
TCAP	GGGCAGAATGGAAGGATCTG	TGGTGGTAGGTCTCATGTCT
TMSB4X	GAAGAAGACAGAGACGCAAGAG	GAAGGCAATGCTTGTGGAATG
TNNT2	AAGAGGCAGACTGAGCGGGAAA	AGATGCTCTGCCACAGCTCCTT
TPM1	TGCTTCACTTCTCCCAAGAC	GCAGGATGCTAAGAGAGAGAAC

Figure S1. An illustrated overview of this study.

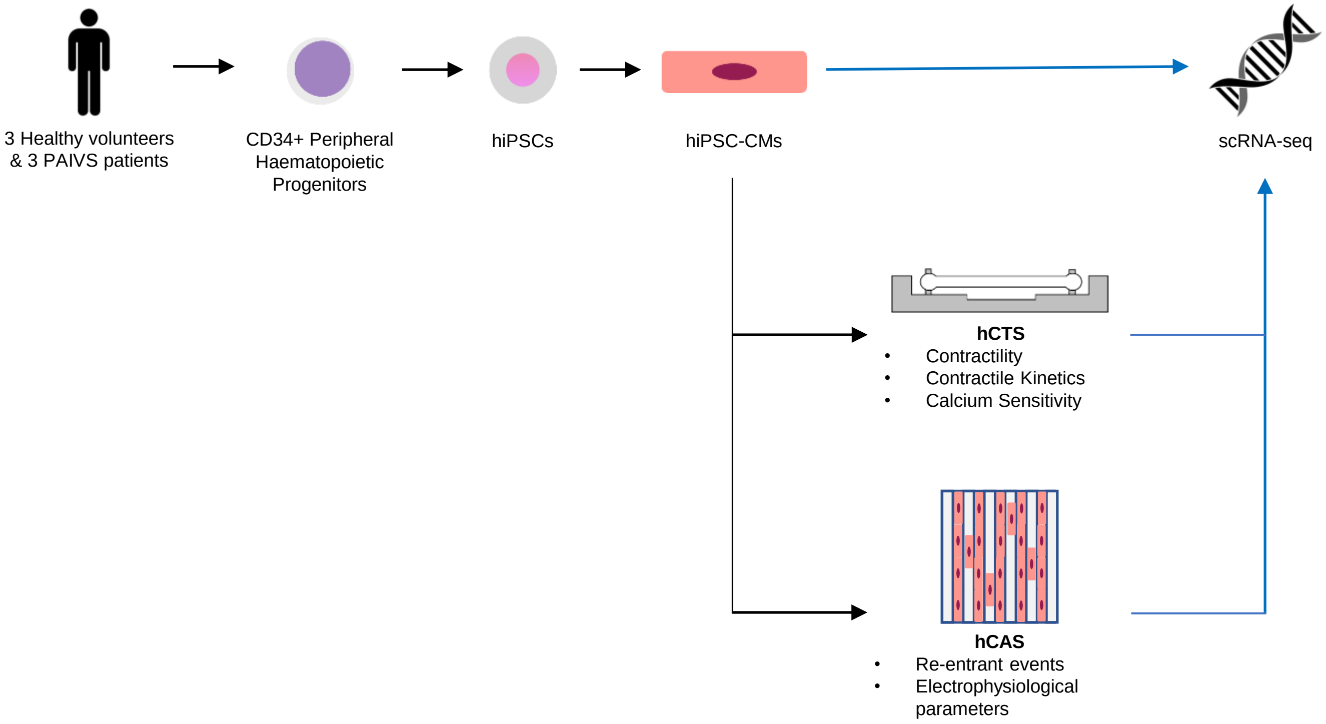
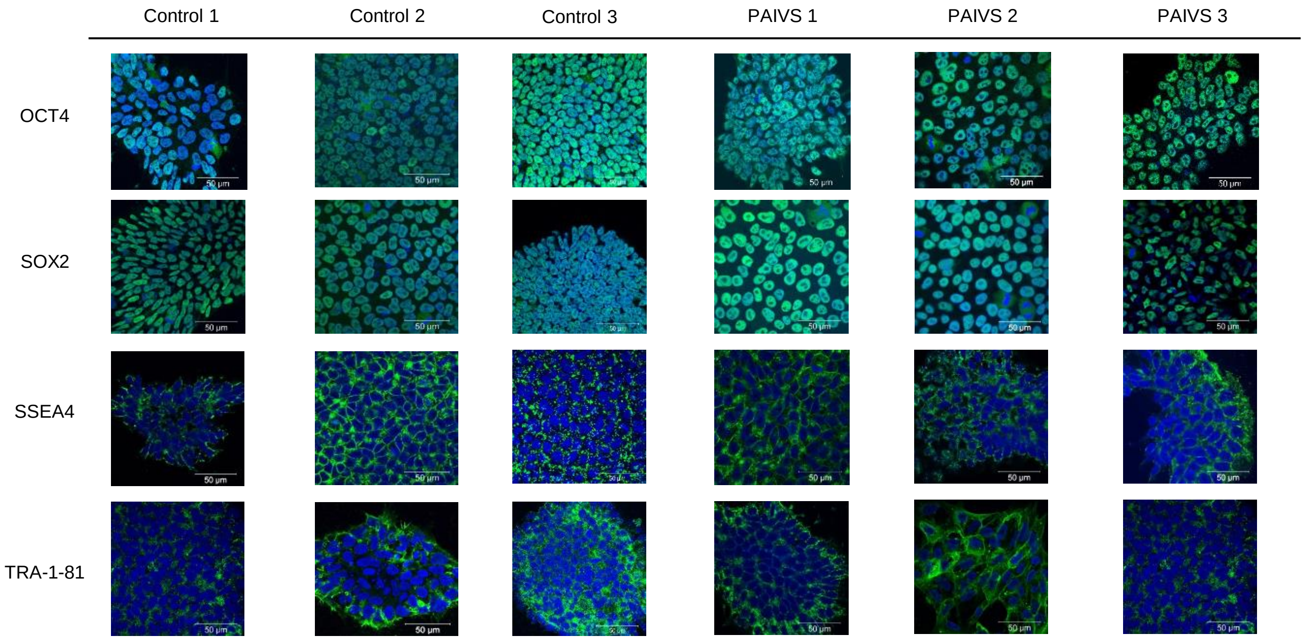
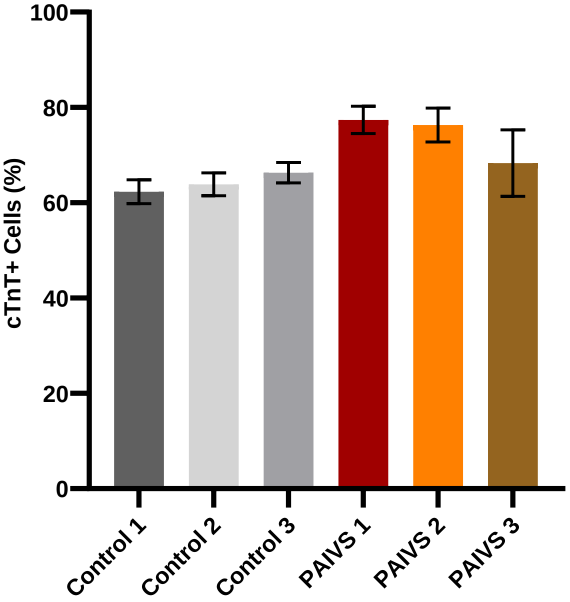


Figure S2. Validation of hiPSCs with immunostaining of pluripotency markers.



Immunostaining showing the expression of pluripotency protein markers (OCT4, SOX2, SSEA4, TRA-1-81) for putative hiPSC clones reprogrammed from blood samples of three healthy controls and three PAIVS patients.

Figure S3. Average percentage of cTnT+ cells at day 14 post-differentiation for all control and PAIVS cell lines.



n = 13 for Control 1, *n* = 12 for Control 2, *n* = 6 for Control 3, *n* = 13 for PAIVS 1, *n* = 13 for PAIVS 2, *n* = 6 for PAIVS 3. Error bars represented as mean ± SEM.