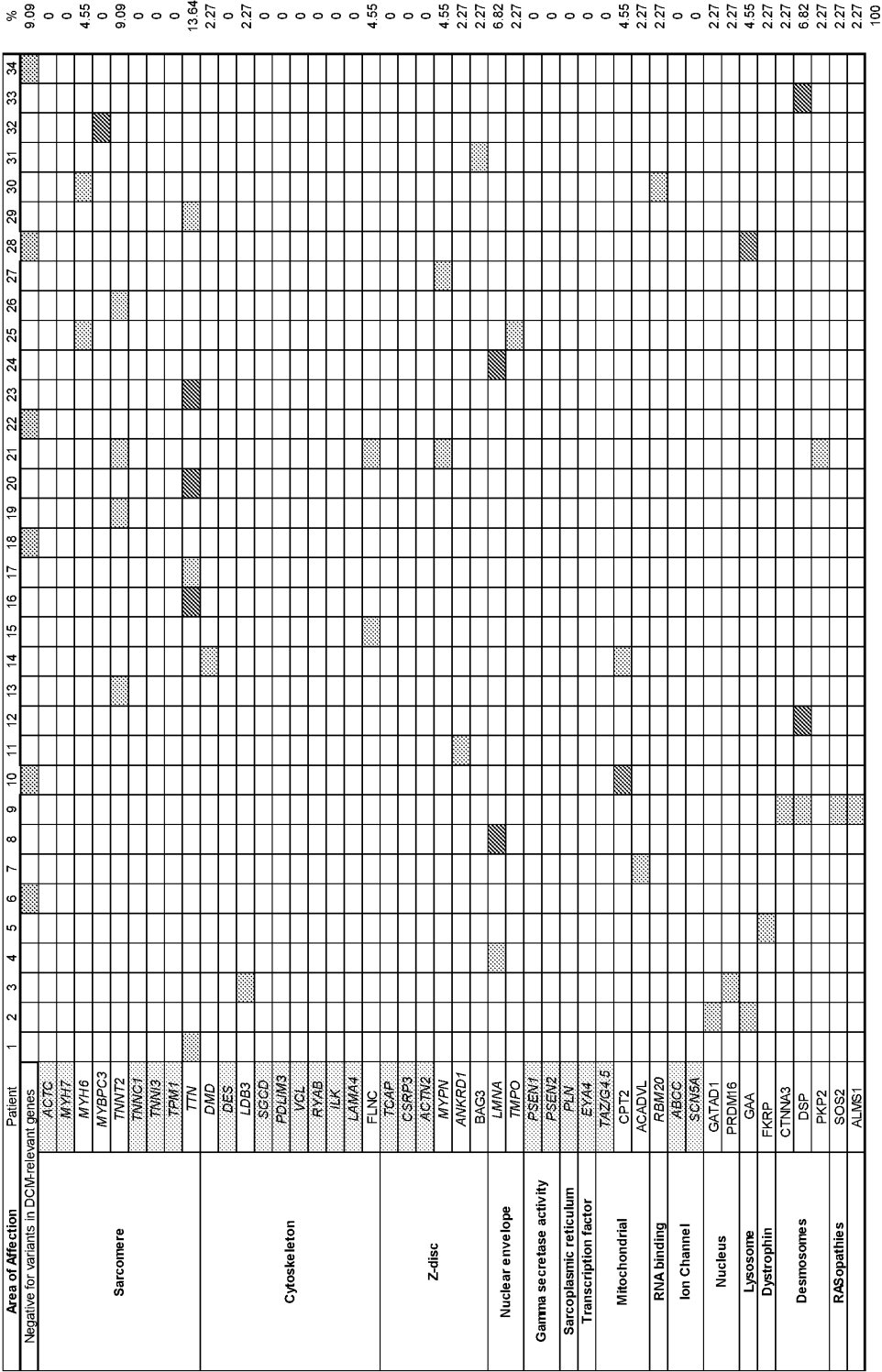


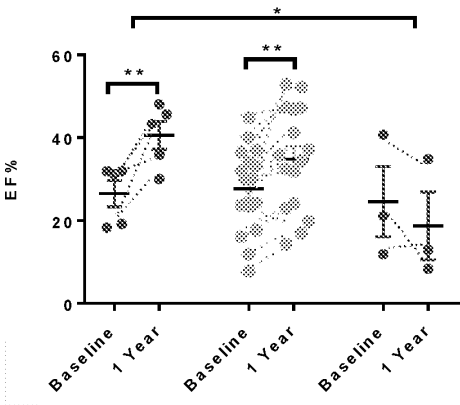
Figure 1



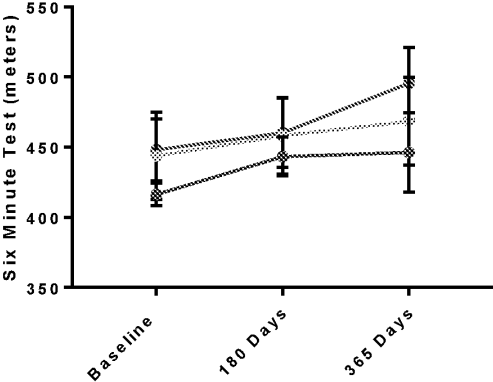
% 9.09 0 0 4.55 0 9.09 0 0 0 0 13.64 2.27 0 2.27 0 0 0 0 0 0 0 0 4.55 0 0 0 0 0 0 0 0 4.55 2.27 2.27 6.82 2.27 0 0 0 0 4.55 2.27 2.27 2.27 0 0 0 0 2.27 2.27 2.27 4.55 2.27 2.27 2.27 6.82 2.27 2.27 2.27 100

Figure 2

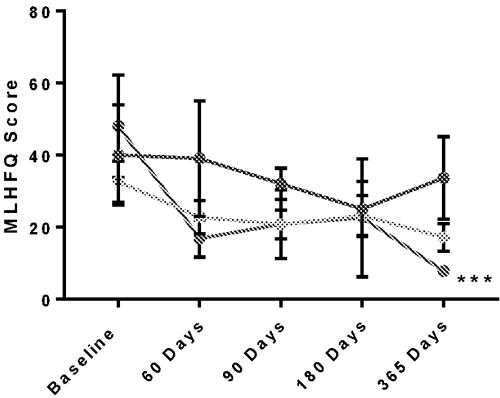
A



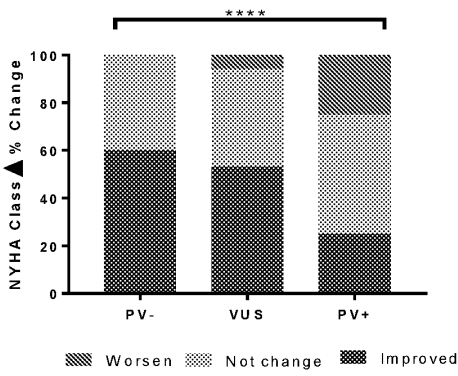
B



C



D



E

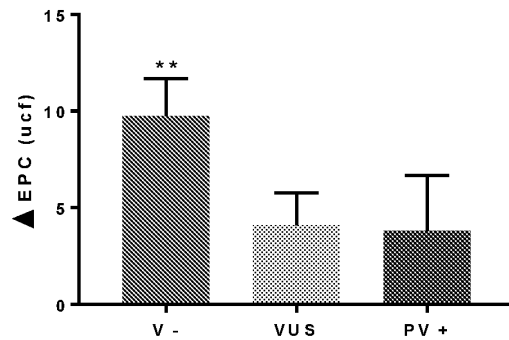


Figure 2A-2E Genotype modify responsiveness in cardiac function and functional capacity

V- patients had the greatest increase in **A)** EF at 12 months compared with VUS: and a decrease in PV+ patients. **B)** Six minute walk distance, increase in the V- patients vs. VUS: and PV+. **C)** V- patients improved in a greater extent in MLHFQ: contrasted with VUS and PV+. **D)** Percentage change in NYHA shown significant difference between groups. V- Improved by 60% in contrast to VUS: 53% and 25% in PV+ **E)** EPC significantly increase over time only in V-group.

V- =negative for any pathologic variants group (green), VUS =variants of uncertain significance group (orange) PV+ = positive for pathologic/likely pathologic variant group (red). * $p < 0.05$, ** $p = 0.01$ *** $p = 0.001$ **** $p < 0.0001$

Figure 3A

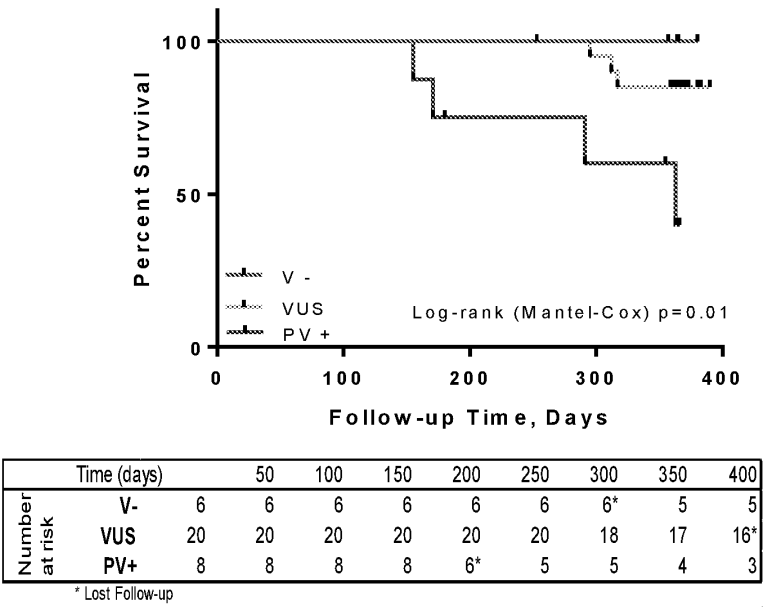
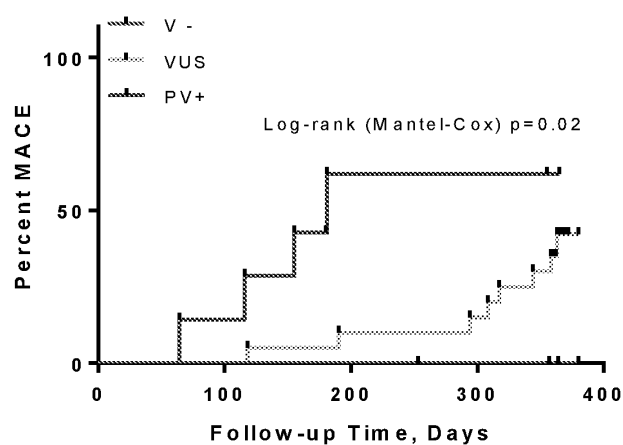


Figure 3B

Time (days)		50	100	150	200	250	300	350	400
Number at risk	V-	6	6	6	6	6	6	6	6
	VUS	20	20	20	19	18	18	17	14
	PV+	8	8	7	6	4	4	4	4

Figure 3 Genetic variation affect MACE and Survival in response to MSC delivery

A) PV- patients had 100% of survival, VUS had 85% and PV+ had 40 % of survival, Log-rank (Mantel-Cox) test $p=0.015$. Overall, PV+ patient's had a substantial increase of death, transplant or LVAD risk by 1 year follow-up. **B)** MACE events differ between V- patients 0 events, VUS had 7 events and PV+ had 6 events in 4 patients (Log-rank (Mantel-Cox) test= 0.021).

V- =negative for any pathologic variants group (green), VUS =variants of uncertain significance group (orange) PV+ = positive for pathologic/likely pathologic variant group (red).