

## **SUPPLEMENTAL MATERIAL**

**Table S1. Baseline Characteristics.**

|   | 3 month (95% CI)          |                        |            | 6 month (95% CI)          |                        |            | 12 month (95% CI)         |                        |            | P value (Ir)     |                   |                   |
|---|---------------------------|------------------------|------------|---------------------------|------------------------|------------|---------------------------|------------------------|------------|------------------|-------------------|-------------------|
|   | Con<br>(n=6)              | Ir<br>(n=6)            | P<br>value | Con<br>(n=6)              | Ir<br>(n=6)            | P<br>value | Con<br>(n=6)              | Ir<br>(n=6)            | P<br>value | 3mo<br>Vs<br>6mo | 3mo<br>vs<br>12mo | 6mo<br>vs<br>12mo |
| Male  | 6                         | 6                      | NA         | 6                         | 6                      | NA         | 6                         | 6                      | NA         | NA               | NA                | NA                |
| Area of the increased <sup>18</sup> F-FDG uptake (mm <sup>2</sup> ) | 653.32<br>(618.41-688.23) |                        |            | 532.48<br>(506.71-558.26) |                        |            | 345.91<br>(322.54-369.28) |                        |            | <0.0001          | <0.0001           | <0.0001           |
| SUV ratios of irradiation to non-irradiation                        | 1.12<br>(0.91-1.32)       | 5.90<br>(4.52-7.29)    | <0.0001    | 1.07<br>(0.71-1.42)       | 4.67<br>(2.34-6.99)    | <0.0001    | 1.18<br>(0.92-1.45)       | 3.22<br>(2.35-4.08)    | 0.0399     | 0.4175           | 0.0032            | 0.2492            |
| Irradiation to non-irradiation activity ratio                       | 1.01<br>(0.91-1.10)       | 1.10<br>(0.98-1.22)    | 0.6577     | 0.96<br>(0.81-1.12)       | 0.77<br>(0.66-0.87)    | 0.0378     | 1.00<br>(0.92-1.08)       | 0.62<br>(0.51-0.72)    | <0.0001    | 0.0001           | <0.0001           | 0.1912            |
| LVEF(%)   | 59.50<br>(53.72-65.28)    | 61.17<br>(56.90-65.44) | 0.9846     | 61.00<br>(58.52-63.48)    | 52.67<br>(46.49-58.85) | 0.0263     | 57.83<br>(54.23-61.43)    | 43.50<br>(39.48-47.52) | <0.0001    | 0.0224           | <0.0001           | 0.0116            |

|                                      |                        |                        |         |                        |                        |         |                        |                        |         |         |         |         |
|--------------------------------------|------------------------|------------------------|---------|------------------------|------------------------|---------|------------------------|------------------------|---------|---------|---------|---------|
| EDV(mL)                              | 22.17<br>(19.92-24.41) | 23.17<br>(20.40-25.94) | >0.9999 | 21.17<br>(19.13-23.20) | 22.00<br>(19.26-24.74) | >0.9999 | 20.67<br>(18.21-23.12) | 26.67<br>(23.72-29.61) | 0.0027  | 0.9997  | 0.2425  | 0.0345  |
| ESV(ml)                              | 10.08<br>(8.58-11.58)  | 9.85<br>(8.66-11.04)   | >0.9999 | 9.33<br>(7.62-11.05)   | 13.50<br>(11.13-15.87) | 0.0119  | 10.00<br>(7.52-12.48)  | 17.17<br>(14.65-19.69) | <0.0001 | 0.0401  | <0.0001 | 0.0386  |
| GLUT4<br>protein<br>expression       | 1                      | 1.17<br>(1.14-1.19)    | <0.0001 | 1                      | 1.11<br>(1.09-1.13)    | <0.0001 | 1                      | 1.07<br>(1.05-1.08)    | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| CPT1 protein<br>expression           | 1                      | 0.83<br>(0.75-0.91)    | <0.0001 | 1                      | 0.80<br>(0.72-0.87)    | <0.0001 | 1                      | 0.63<br>(0.53-0.72)    | <0.0001 | 0.9221  | <0.0001 | 0.0001  |
| CD68 relative<br>mRNA level          | 1                      | 1.05<br>(0.95-1.14)    | 0.9954  | 1                      | 0.99<br>(0.76-1.22)    | >0.9999 | 1                      | 1.16<br>(0.86-1.46)    | 0.4714  | 0.9912  | 0.7800  | 0.4267  |
| IL-6 relative<br>mRNA level          | 1                      | 1.12<br>(0.92-1.31)    | 0.8972  | 1                      | 1.18<br>(0.86-1.50)    | 0.5713  | 1                      | 1.17<br>(0.94-1.41)    | 0.6278  | 0.9871  | 0.9938  | >0.9999 |
| TNF- $\alpha$ relative<br>mRNA level | 1                      | 1.12<br>(0.90-1.35)    | 0.9271  | 1                      | 1.13<br>(0.90-1.35)    | 0.9190  | 1                      | 1.07<br>(0.67-1.47)    | 0.9925  | >0.9999 | 0.9983  | 0.9977  |
| CD68 protein<br>expression           | 1                      | 1.01<br>(0.94-1.07)    | >0.9999 | 1                      | 1.04<br>(0.96-1.12)    | 0.8203  | 1                      | 1.04<br>(0.93-1.15)    | 0.8446  | 0.8966  | 0.9145  | >0.9999 |

|                                       |                     |                        |         |                     |                        |         |                      |                        |         |         |         |         |
|---------------------------------------|---------------------|------------------------|---------|---------------------|------------------------|---------|----------------------|------------------------|---------|---------|---------|---------|
| IL-6 protein expression               | 1                   | 1.00<br>(0.93-1.07)    | >0.9999 | 1                   | 1.03<br>(0.92-1.13)    | 0.9737  | 1                    | 1.03<br>(0.93-1.12)    | 0.9691  | 0.9751  | 0.9707  | >0.9999 |
| TNF- $\alpha$ protein expression      | 1                   | 1.01<br>(0.94-1.08)    | 0.9964  | 1                   | 1.02<br>(0.95-1.09)    | 0.9602  | 1                    | 1.02<br>(0.95-1.09)    | 0.9740  | 0.9993  | 0.9998  | >0.9999 |
| CVF (%)                               | 3.83<br>(1.80-5.87) | 10.33<br>(7.04-13.63)  | 0.0293  | 3.50<br>(0.27-6.73) | 22.17<br>(18.11-26.23) | <0.0001 | 4.67<br>(1.30-8.03)  | 31.50<br>(26.50-36.50) | <0.0001 | <0.0001 | <0.0001 | 0.0007  |
| Percentage of TUNEL-positive cells(%) | 4.50<br>(2.91-6.09) | 18.67<br>(14.18-23.15) | 0.0012  | 6.50<br>(3.48-9.52) | 32.33<br>(26.45-38.22) | <0.0001 | 7.33<br>(4.10-10.56) | 57.67<br>(46.79-68.55) | <0.0001 | 0.0018  | <0.0001 | <0.0001 |