

## Supplementary

### Migration and proliferation of cells in the presence of T<sub>3</sub>

#### Methodology

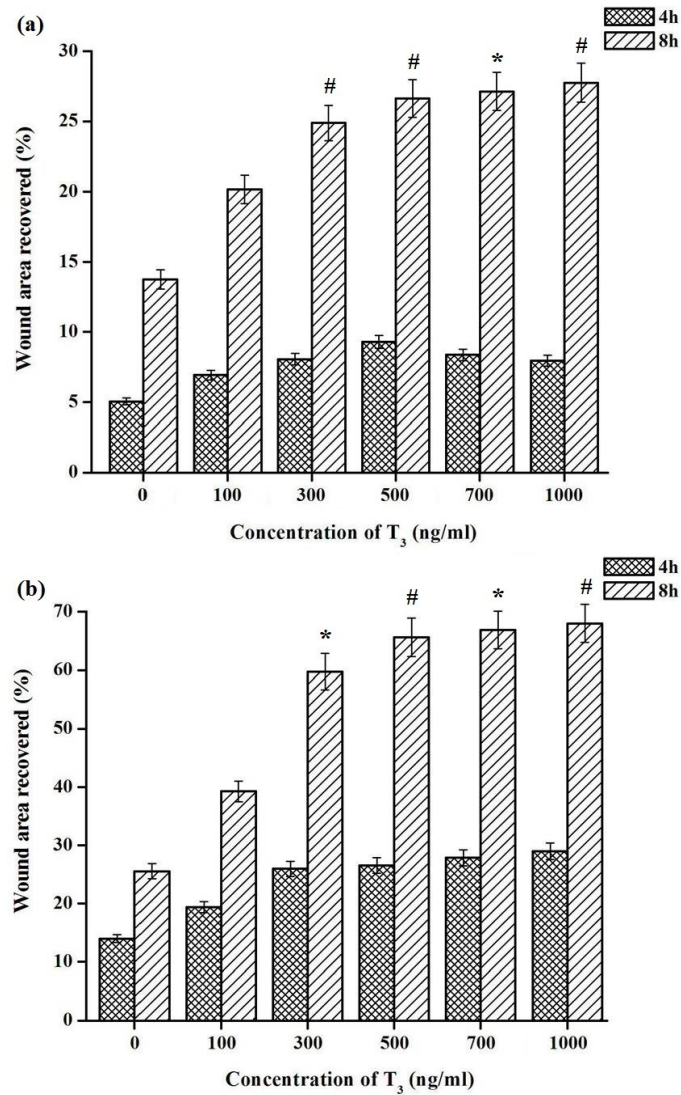
The migration and proliferation of HaCaT and NIH 3T3 cells in presence of T<sub>3</sub> were studied using the protocol as detailed in the main article. Briefly, for migration using scratch wound assay, 2×10<sup>5</sup> HaCaT cells and 1.7×10<sup>5</sup> NIH3T3 cells were seeded separately into 24 well plates and cultured in a CO<sub>2</sub> incubator until confluency. Thereafter scratch wound was created through the midline of the confluent cell culture using a 200 µl pipette tip. After a wash with PBS, various concentrations of T<sub>3</sub> were aliquoted in DMEM media from a stock of 1mg/ml and added to the wells. The wound area was then photographed periodically and the wound area recovered was measured using Image J software. The percentage of wound recovered was calculated using the formula mentioned below, and the significance was computed using student's t-test.

$$\text{Wound area recovered (\%)} = \frac{(\text{Initial wound area} - \text{Final wound area})}{\text{Initial wound area}} \times 100$$

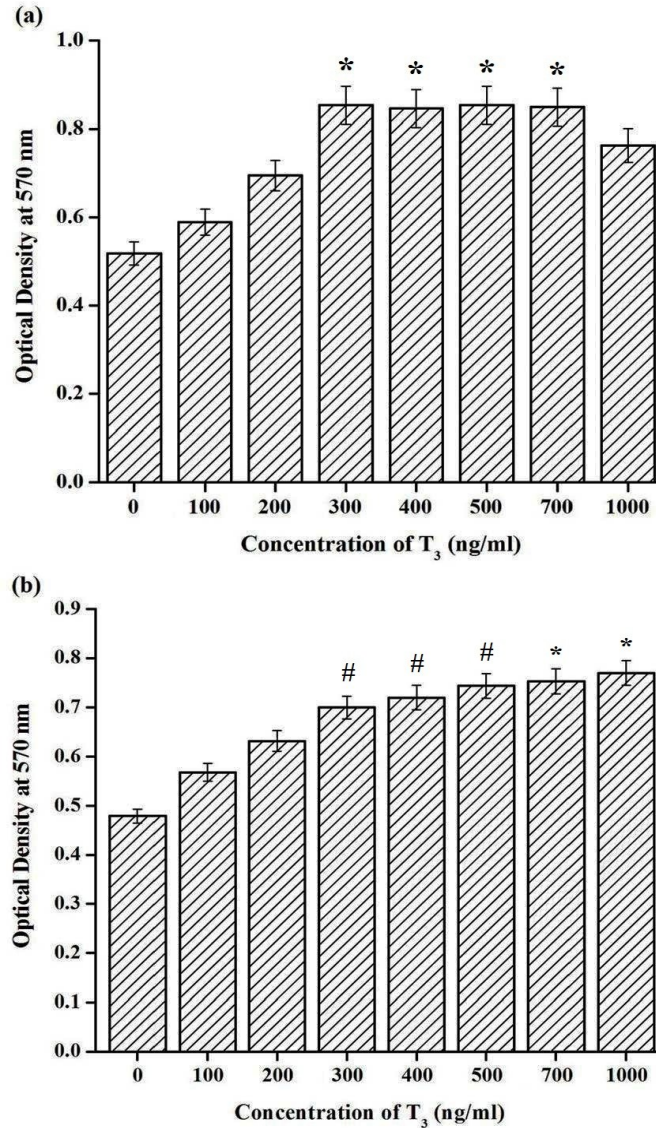
In case of proliferation, 12×10<sup>3</sup> HaCaT cells/well and NIH 3T3 cells/well were seeded and incubated overnight. To these cells, the freshly aliquoted volumes of T<sub>3</sub> in DMEM media were added and incubated. After 24h, MTT was added to each well and the purple formazan crystal formed by the live cells was dissolved using DMSO and colorimetrically read at 570/630nm

#### Results and Discussion

The effect of T<sub>3</sub> on the migration and proliferation of keratinocytes and fibroblasts were studied and the results are tabulated as a graphical illustration (Fig. 1 and Fig. 2 respectively).



**Fig 1:** Effect of various concentrations of T<sub>3</sub> on the migration of (a) HaCaT cells, (b) NIH 3T3 cells. #  $P \leq 0.03$ , \*  $P \leq 0.05$  were calculated by student's t-test for the indicated T<sub>3</sub> concentration by comparing with the control at the same time point All the values represented are the mean of three repeated experiments with triplicates for each concentration.



**Fig 2:** Effect of  $T_3$  on the proliferation potential of (a) HaCaT cells, (b) NIH 3T3 cells. \*  $P \leq 0.03$ , #  $P \leq 0.05$  were calculated by student's t-test for the indicated  $T_3$  concentration by comparing with the control at the same time point All the values represented are the mean of three repeated experiments with triplicates for each concentration.

The migration and proliferation of cells was observed to be promoted by  $T_3$  and a threshold was reached at a concentration of 300 ng/ml, after which, the migration increased in a slower rate and was stably maintained. It was further observed that the migration and proliferation rate of cells in presence of the release media collected from P/T1 nanofiber (mentioned in the results of the main article) was equivalent to that obtained with  $T_3$  alone. Thus it could be inferred that the increase in rate of migration and proliferation of cells in presence of release media collected from P/T1 nanofibers was due to the effect of  $T_3$ .