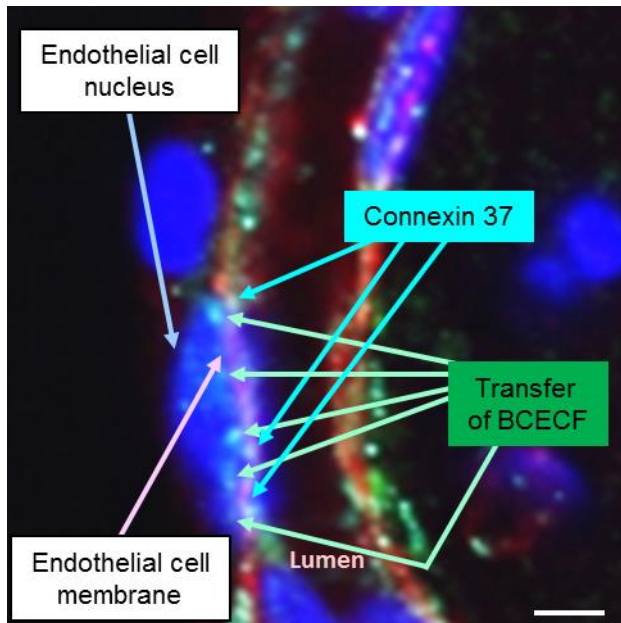


## Graphical Abstract



Ten minutes after BCECF-loaded MSC transplantation, transferred BCECF-positive signals were observed in CD31-positive endothelial cells, mostly overlapping with connexin 37 (nuclei were stained with blue DAPI). These findings indicated a cell-cell interaction via gap-junction between transplanted MSC and endothelial cells *in vivo*.