

Electronic Supplementary Information (ESI) for

3D Cell Clusters Combined with a Bioreactor System to Enhance Drug Metabolism Activities of the C3A Hepatoma Cell Line

Ching-Yun Chen^{a,b,†}, Tsai-Shin Chiang^{c,†}, Ling-Ling Chiou^d, Hsuan-Shu Lee^{e,f,g*}, Feng-Huei Lin^{a,b,*}

† These authors contributed equally to this work.

* To whom correspondence should be addressed: benlee@ntu.edu.tw (H.S.L.) or double@ntu.edu.tw (F.H.L.).

The Supplementary Materials includes:

Fig. S1 Albumin and HNF4 α protein enhanced by 3D dynamic culture condition.

Fig. S2 CYP1B1 and CYP2C9 activity at Day 14 with 3D dynamic culture condition.

Fig. S3 Size distribution of micro-tissue forming in 3D dynamic culture condition at different time period.

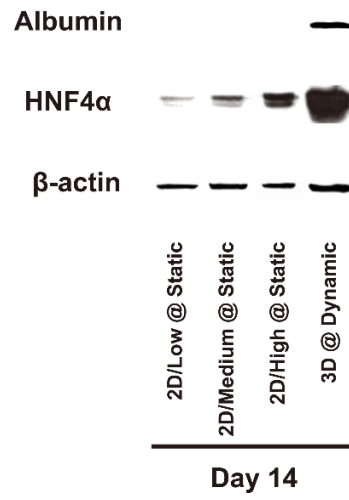


Fig. S1 Albumin and HNF4α protein enhanced by 3D dynamic culture condition. The Western blotting examination presented significantly enhanced in 3D dynamic group at Day 14.

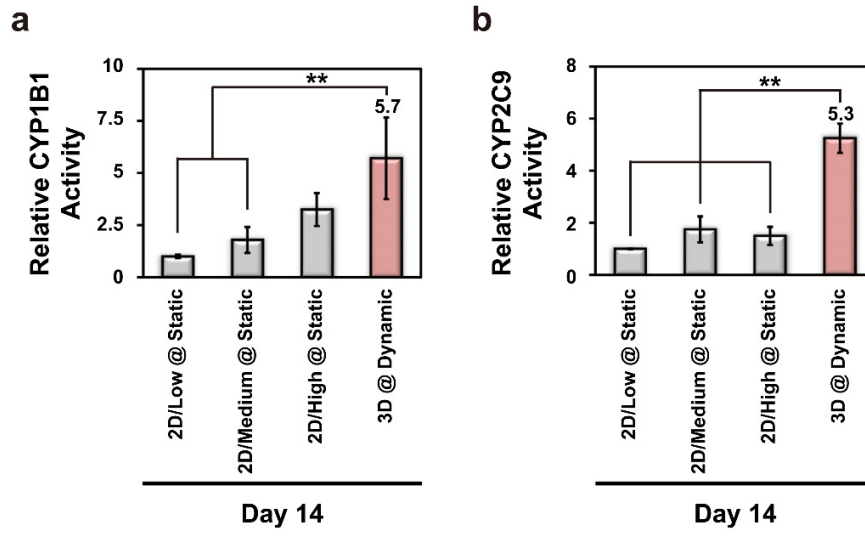


Fig. S2 CYP1B1 and CYP2C9 activity at Day 14 with 3D dynamic culture condition. The cellular activities of (a) CYP1B1 and (b) CYP2C9 represented significantly enhanced in 3D dynamic group at Day 14.

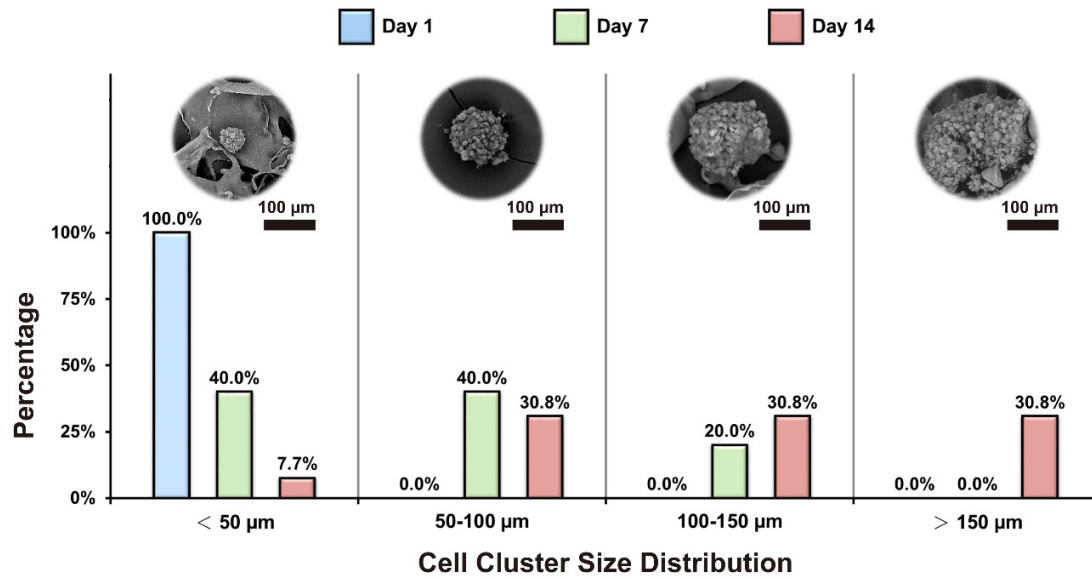


Fig. S3 Size distribution of micro-tissue forming in 3D dynamic culture condition at different time period. Briefly, the data displayed that all the cell clusters at Day 1 were under 50 μm; there were about 80 % cell clusters under 100 μm at Day 7; at Day 14, the size of cell clusters increased and over 60 % cell clusters were bigger than 100 μm.