

Supplementary File

Table S1. Primers used in RTqPCR analysis of islets genes.

Gene	Sequences
<i>Ins1</i>	f_TCCCGTCGTGAAGTGGAG r_CAGTTGGTAGAGGGAGCAGAT
<i>Ins2</i>	f_GGCCCTGTGGATCCGCT r_GCCTAGTTGCAGTAGTTCTCCA
<i>Sst</i>	f_GTTTCTGCAGAAGTCTCTGGC r_AGTTCTTGCAGCCAGCTTTG
<i>Gcg</i>	f_ATCATTCCCAGCTTCCCAGAC r_CGGTTCCTCTTGGTGTTTCATC
<i>App</i>	f_GTCCTCCCACCAACCAATGT r_AGCACAGGCACGTTGTTGTA
<i>Glp1r</i>	f_GCATCGTGATAGCCAAGCTGA r_GCAGTACAAGACAGCCACCA
<i>Pdx1</i>	f_ACATCTCCCCATACGAAGTGC r_AGTTGAGCATCACTGCCAGC
<i>Reg3a</i>	f_ACGCTGCTCTACTACCTGTTCA r_TTGTTGTTCACTCTGCCTGTCA
<i>Neurod</i>	f_GGAGTAGGGATGCACCGG r_CTTGGCCAAGAACTATATCTGGG
<i>Neurog3</i>	f_TGGCGCCTCATCCCTTG r_CAGTCACCTGCTTCTGCTTC
<i>Gapdh</i>	f_GCATCGTGGAAGGGCTCATG r_GCCAGTGAGCTTCCCGTTC
<i>Glut2</i>	f_CTCTGGTCTCTGTCTGTGTCC r_TGGAACCAGTCCTGAAATTAGCC
<i>Insr</i>	f_TGGCGCTGTGTAACTTCAG r_TAGGACAGGGTCCCAGACAC
<i>Gcgr</i>	f_AGAAAGGGCCTCACAAGACA r_CATGGAACATGGCAACACTC
<i>B_actine</i>	f_GTCGTACCACTGGCATTGTG r_TCTCAGCTGTGGTGGTGAAG

Table S2. Primers used in RTqPCR analysis of hepatic genes.

Gene	Sequences
<i>Hnf4a</i>	f_ CTCTCTCCTGCTGTCCCAAC r_ CAAGAATCGTCGTGATGTGG
<i>Igfbp1</i>	f_ GATCACTGACCTCAAGAAATGGAAG r_ GCGGCAGCTAATCTCTCTAACA
<i>Ugt1a</i>	f_ TGCTCTGCTGACAGACCCT r_ ACCCGCTGCAGGAAGTTC
<i>G6pc</i>	f_ GACCTCAGGAACGCCTTCTAT r_ ATTGATGCCACAGTCTCTTGA
<i>Alb</i>	f_ CTGGCACAATGAAGTGGGTAAC r_ GGGCGATCTCACTCTTGTGT
<i>Cyp1a2</i>	f_ TAGTGAAGCAGGGGGATGAC r_ ATGTGGGGTCTGAGGCTATG
<i>Cyp2d4</i>	f_ GTGTCCACCTTCCGTCACTT r_ GACGCGATCACGTTACACAC
<i>Cyp3a2</i>	f_ GCATAAGCACCGAGTGGATT r_ CGATCTCCTCCTGCAGTTTC
<i>Mrp2</i>	f_ CGGTCATCACTATCGCACAC r_ GCTAGAGCTCCGTGTGGTTC
<i>Pck1</i>	f_ ATGACATTGCCTGGATGAAGTTTG r_ CCGTTTTCTGGGTTGATGGC
Gapdh	f_ GCATCGTGGAAGGGCTCATG r_ GCCAGTGAGCTTCCCGTTC
<i>Glut2</i>	f_ CTCTGGTCTCTGTCTGTGTCC r_ TGGAACCAGTCCTGAAATTAGCC
Insr	f_ TGCGCTGTGTAACTTCAG r_ TAGGACAGGGTCCCAGACAC
Gcgr	f_ AGAAAGGGCCTCACAAGACA r_ CATGGAACATGGCAACTC
<i>B_actine</i>	f_ GTCGTACCACTGGCATTGTG r_ TCTCAGCTGTGGTGGTGAAG

Table S3. Primary and secondary antibodies used for islets and hepatocytes immunostaining*.

Immunostaining	Primary antibody	Secondary antibody
<i>Insulin</i>	Mouse anti-insulin (ab6995) Abcam	Goat anti-Mouse Alexa Fluor® 594 (ab150116) Abcam
<i>Glucagon</i>	Rabbit anti-glucagon (ab167078) Abcam	Goat anti-rabbit Alexa Fluor 680 (A-21109) ThermoFisher
<i>INSR</i>	Mouse anti-insulin receptor R β (sc-57342) Santa Cruz	Donkey Anti-Mouse Alexa Fluor® 647 (ab150107) Abcam
<i>GLUT2</i>	Rabbit anti- Glucose transporter type 2 (E-AB-65640) Elabscience	Goat Anti-Rabbit Alexa Fluor® 488 (ab150077) Abcam
<i>CK18</i>	Mouse anti-Cytokeratin 18 (sc-32329) Santa Cruz	Goat anti-Mouse Alexa Fluor® 594 (ab150116) Abcam
<i>CYP3A2</i>	Rabbit anti- Cytochrome P450 type 3A2 (ab195627) Abcam	Goat anti-rabbit Alexa Fluor 680 (A-21109) ThermoFisher

* All antibodies were diluted in the range recommended by the manufacturers.

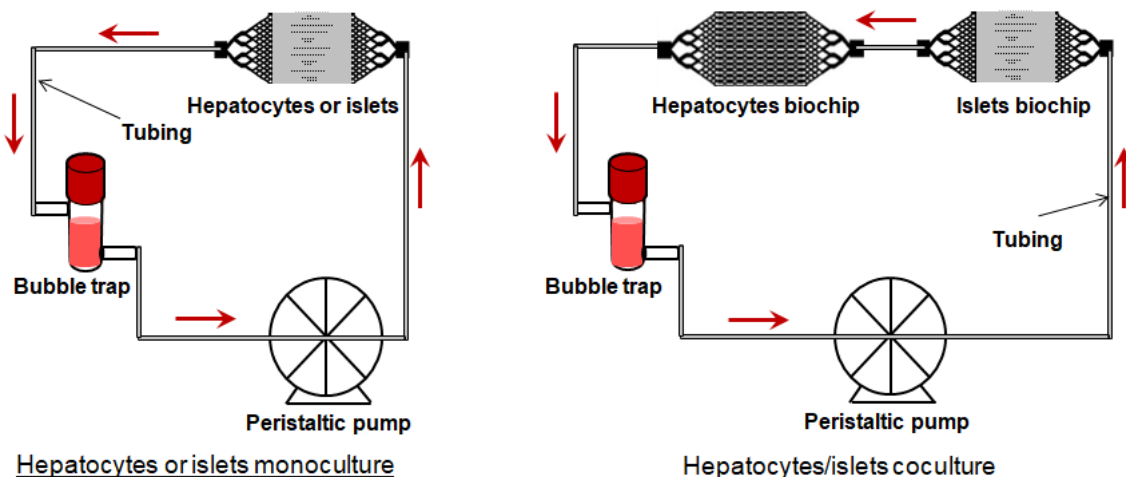


Fig. S1. Setup used for dynamic culture in biochip.

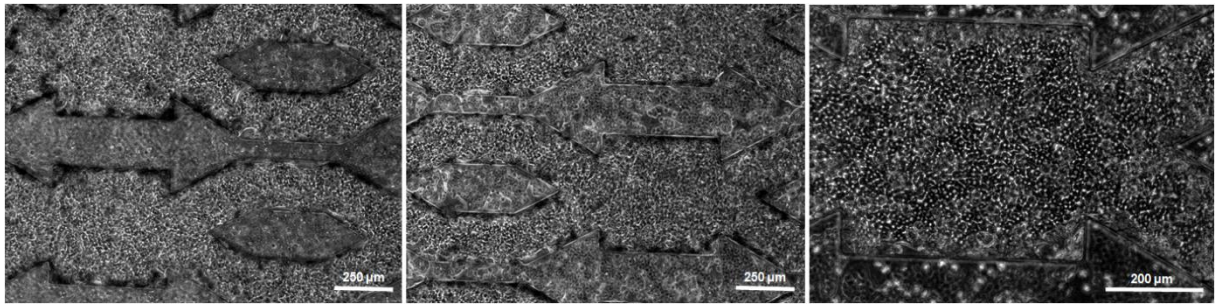


Fig. S2. Hepatocytes morphology after 24h of adhesion at static condition.

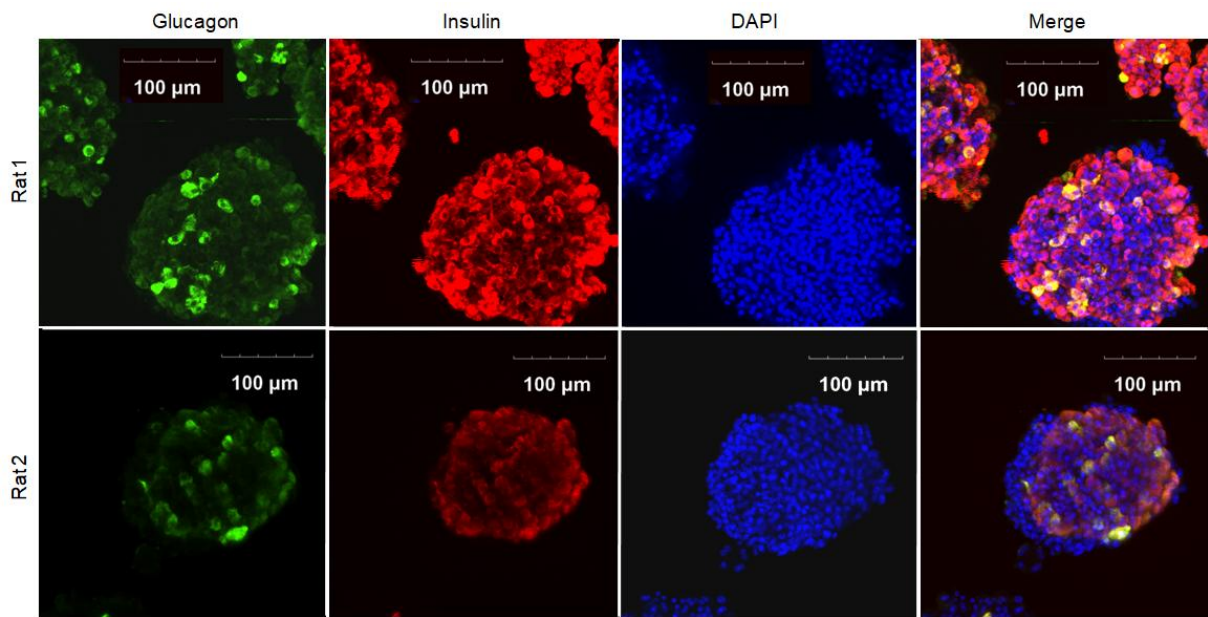


Fig. S3. Islets immunostainings (DAPI, glucagon, insulin, and merge) at day 0 (post-extraction) for two different rats.