

Publication List

No.	Type	Title	Source and URL
01	Liver	Accurate Evaluation of Hepatocyte Metabolisms on a Noble Oxygen-Permeable Material With Low Sorption Characteristics	<i>Front. Toxicol.</i> , 4: 810478, (2022). https://www.frontiersin.org/journals/toxicology/articles/10.3389/ftox.2022.810478/full
02	Liver	Cryopreserved human hepatocytes culture optimization on polymethylpentene oxygen permeable membranes for drug screening purposes	<i>Fundam. Toxicol. Sci.</i> , 9(4): 135-144, (2022). https://www.jstage.jst.go.jp/article/fts/9/4/9_135/_article
03	Liver	New in vitro screening system to detect drug-induced liver injury using a culture plate with low drug sorption and high oxygen permeability	<i>Drug Metabolism and Pharmacokinetics</i> , 52: 100511, (2023). https://www.sciencedirect.com/science/article/pii/S134743672300023X?via%3Dihub
04	Liver	Optimization of physical microenvironment to maintain the quiescence of human induced pluripotent stem cell-derived hepatic stellate cells	<i>Biotechnol Bioeng.</i> , 120: 2345-2356, (2023). https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/10.1002/bit.28485
05	Liver, Intestine	Cut-Liver microphysiological systems revealed potential crosstalk mechanism modulating drug metabolism	<i>PNAS Nexus</i> , 3(2): 070, (2024). https://academic.oup.com/pnasnexus/article/3/2/pgae070/7604466?login=false
06	Liver	Microphysiological systems for realizing microenvironment that mimics human physiology-functional material and its standardization applied to microfluidics	<i>Emergent Materials</i> , 8: 1139-1151, (2026). https://link.springer.com/article/10.1007/s42247-024-00822-x
07	Liver	Examination of common culture medium for human hepatocytes and engineered heart tissue: Towards an evaluation of cardiotoxicity associated with hepatic drug metabolism in vitro	<i>PLoS ONE</i> , 19(12): e0315997, (2024). https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0315997
08	Liver	Enhanced Functionality of Human Hepatocytes using the Oxygen Permeable Culture Plate for Optimized Oxygen Supply in Co-culture Systems with Culture Inserts	<i>AATEX</i> , 29(2): 64-74, (2024). https://www.jstage.jst.go.jp/article/aatex/29/2/29_aatex29_64/_article-char/ja
09	Heart	Significance of Oxygen Supply for Toxicity Evaluation using iPS Cell-derived Functional Cells	<i>AATEX</i> , 30(2): 62-69, (2025). https://www.jstage.jst.go.jp/article/aatex/30/2/30_aatex-30_62/_article-char/en
10	Testis	Development of the membrane ceiling method for in vitro spermatogenesis	<i>Scientific Reports</i> , 15: 625, (2026). https://www.nature.com/articles/s41598-024-84965-1
11	Zebrafish	Enhanced Drug Screening Efficacy in Zebrafish Using a Highly Oxygen-Permeable Culture Plate	<i>Appl. Sci.</i> , 15(15): 8156, (2026). https://www.mdpi.com/2076-3417/15/15/8156
12	Liver	Effects of Oxygen-Permeable Plates on Cytochrome P450 and Flavin-Containing Monooxygenase in HepaRG Spheroid Cultures	<i>Biol. Pharm. Bull.</i> , 49(1): 90-98, (2026). https://www.jstage.jst.go.jp/article/bpb/49/1/49_b25-00489/_article
13	Kidney	Evaluation of Drug-Induced Kidney Injury by Primary Culture of Rat Kidney Tissue Slices Using Oxygen-Permeable Polyolefin Plate with Low Drug Adsorption	<i>Biol. Pharm. Bull.</i> , 49(1): 122-129, (2026). https://www.jstage.jst.go.jp/article/bpb/49/1/49_b25-00572/_article
14	Liver	Continuous bile excretion from polarized hepatocytes on a microchannel-patterned device	<i>Cell Rep. Phys. Sci.</i> , 7(4): 103229, (2026). https://www.cell.com/cell-reports-physical-science/fulltext/S2666-3864(26)00135-9
15	Kidney	Shaking culture improves physiological maintenance of primary rat kidney tissue slices	<i>Front. Toxicol.</i> , 8: 1838970, (2026). https://www.frontiersin.org/journals/toxicology/articles/10.3389/ftox.2026.1838970/full
16	Liver, Heart	An oxygen-permeable, stirrer-pump-integrated liver-heart microphysiological system enables time-resolved analysis in PK-PD relationships of metabolism-dependent cardiotoxicity	<i>NAM Journal</i> , 2: 100107, (2026). https://www.sciencedirect.com/science/article/pii/S3050620426000321?via%3Dihub
17	Liver	High-oxygen gas-permeable culture improves viability and supports quantitative antifibrotic pharmacology in precision-cut liver slices	<i>Physiol Gastrointest Liver Physiol</i> , 10: 1152, (2026). https://journals.physiology.org/doi/full/10.1152/ajpgi.00144.2026