PUBLICATIONS

1. Seow WY, Kandasamy K, Peh G, Mehta J, Sun W (2019). Ultrathin, strong, and cell-adhesive agarose-based membranes engineered as substrates for corneal endothelial cells. *ACS Biomater. Sci. Eng.* 5: 4067-4076.
2. Seow WY, Kandasamy K, Purnamawati K, Sun W, Hauser CAE (2019). Thin peptide hydrogel membranes suitable as scaffolds for engineering layered biostructures. *Acta Biomater.* 88: 293-300.
3. Wang H and Sun W (2017). CRISPR-mediated targeting of HER2 inhibits cell proliferation through a dominant negative mutation. *Cancer Lett.* 385: 137-143.
4. Dorfmueller S, Tan HC, Ngoh ZX, Toh KY, Peh G, Ang HP, Seah XY, Chin A, Choo A, Mehta JS, Sun W (2016). Isolation of a recombinant antibody specific for a surface marker of the corneal endothelium by phage display. *Sci Rep.* 6: 21661.
5. Mehta A, Verma V, Nandihalli M, Ramachandra CJ, Sequiera GL, Sudibyo Y, Chung Y, Sun W, Shim W (2014). A systemic evaluation of cardiac differentiation from mRNA reprogrammed human induced pluripotent stem cells. *PLoS One* 9:e103485.
6. Cheong YK, Peh G, Ngoh ZX, Toh KY, Toh R, Chng Z, Mehta J, and Sun W (2013). Identification of cell surface markers glypican-4 and CD200 that differentiate human corneal endothelium from stromal fibroblasts. *Invest Ophthalmol Vis Sci.* 54(7): 4538-47.
7. Sun W and Xu XQ (2013). Perspective from the heart: The potential of human pluripotent stem cell-derived cardiomyocytes. *J Cell Biochem.* 114: 39-46.
8. Mehta A, Chung YY, Ng A, Iskandar F, Atan S, Wei H, Dusting G, Sun W, Wong P, Shim W (2011). Pharmacological response of human cardiomyocytes derived from virus-free induced pluripotent stem cells. *Cardiovasc Res.* 91: 577-86.
9. Xu XQ, Soo SY, Sun W, and Zweigerdt R (2009). Global Expression profile of highly enriched cardiomyocytes derived from human embryonic stem cells. *Stem Cells* 27: 2163-74.
10. Sun W and Zweigerdt R (2009). Human embryonic stem cell-derived cardiomyocytes for cell therapy and drug discovery. In *Emerging Technology Platforms for Stem Cells*, Lakshmipathy et al. (Eds.), John Wiley & Sons, Hoboken, N.J., pp 397-415.
11. Xu XQ, Zweigerdt R, Soo SY, Ngoh, ZX, Tham SC, Graichen R, Davidson B, Colman A, and Sun W (2008). Highly enriched cardiomyocytes from human embryonic stem cells. *Cytotherapy* 10: 376-389.
12. Phillips BW, Hentze H, Rust WL, Chen Q, Chipperfield H, Tan EK, Abraham S, Sadasivam A, Soong PL, Wang ST, Lim R, Sun W, Colman A, and Dunn R (2007). Directed differentiation of human embryonic stem cells into the pancreatic lineage. *Stem Cells Dev.* 16: 561-78.
13. Sun W, Wu RR, van Poelje PD, and Erion MD (2001). Isolation of a family of organic anion transporters from human liver and kidney. *Biochem. Biophys. Res. Comm.* 283: 417-22.
14. Sassa T, Gomi H, Sun W, Ikeda T, Thompson RF, Itohara S (2000). Identification of variants and dual promoters of murine serine/threonine kinase KKIAMRE. *Neurochem.* 74: 1809-19.
15. Gomi H, Sun W, Finch CE, Itohara S, Yoshimi K, Thompson RF (1999). Learning induces a CDC2-related protein kinase, KKIAMRE. *J. Neurosci.* 19: 9530-7.

16. Bailey DJ, Kim JJ, Sun W, Thompson RF, and Helmstetter FJ (1999). Acquisition of fear conditioning in rats requires the synthesis of mRNA in the amygdala. *Behav. Neurosci.* 113: 276-282.
17. 15. Sprengel R, Suchanek B, Amico C, Brusa R, Burnashev N, Rozov A, Hvalby O, Jensen V, Paulsen O, Andersen P, Kim JJ, Thompson RF, Sun W, Webster LC, Grant SG, Eilers J, Konnerth A, Li J, McNamara JO, Seeburg PH (1998). Importance of the intracellular domain of NR2 subunits for NMDA receptor function in vivo. *Cell* 92: 279-289.
18. Ferrer-Montiel AV, Merino JM, Planells-Cases R, Sun W, and Montal M (1998). Structural determinants of the blocker binding site in glutamate and NMDA receptor channels. *Neuropharmacology* 37: 139-147.
19. Offermanns S, Hashimoto K, Watanabe M, Sun W, Kurihara H, Thompson RF, Inoue Y, Kano M, Simon MI (1997). Impaired motor coordination and persistent multiple climbing fiber innervation of cerebellar Purkinje cells in mice lacking G-alpha-q. *Proc. Natl. Acad. Sci. USA* 94: 14089-14094.
20. Kim JJ, Chen L, Bao S, Sun W, and Thompson RF (1996). Genetic dissections of the cerebellar circuitry involved in classical eyeblink conditioning. In *Gene Targeting and New Developments in Neurobiology*, Nakanishi et al. (Eds.), Japan Scientific Societies Press, Tokyo, pp. 3-15.
21. Ferrer-Montiel AV, Sun W, and Montal M (1996). A single tryptophan on M2 of glutamate receptor channels confers high permeability to divalent cations. *Biophys. J.* 71: 749-758.
22. Ferrer-Montiel AV, Sun W, and Montal M (1995). Molecular design of the N-methyl-D-aspartate receptor binding site for phencyclidine and dizolcipine. *Proc. Natl. Acad. Sci. USA* 92: 8021-8025.
23. Ferrer-Montiel AV, Patten CD, Sun W, Schiffer J, and Montal M (1995). The M2 transmembrane segment as a molecular determinant of the ion permeation properties in the superfamily of ligand-gated ion channels. *Biochem. Soc. Trans.* 22: 382S.
24. Sun W, Ferrer-Montiel AV, Montal M (1993). Primary Structure and functional expression of the AMPA/kainate receptor subunit 2 from human brain. *NeuroReport* 5: 441-444.
25. Collins C, Duff C, Duncan AM, Planells-Cases R, Sun W, Norremolle A, Michaelis E, Montal M, Worton R, Hayden MR (1993). Mapping of the human NMDA receptor subunit (NMDAR1) and the proposed NMDA receptor glutamate-binding subunit (NMDARA1) to chromosomes 9q34.3 and chromosome 8, respectively. *Genomics* 17: 237-239.
26. Planells-Cases R, Sun W, Ferrer-Montiel AV, and Montal M (1993). Molecular cloning, functional expression, and pharmacological characterization of an NMDA receptor subunit from human brain. *Proc. Natl. Acad. Sci. USA* 90: 5057-5061.
27. Sun W, McPherson JD, Hoang DQ, Wasmuth JJ, Evans GA, and Montal M (1992). Mapping of a human brain voltage-gated calcium channel to human chromosome 12p13-pter. *Genomics* 14: 1092-1094.
28. Sun W, Ferrer-Montiel AV, Schinder AF, McPherson JD, Evans GA, and Montal M (1992). Molecular cloning, chromosomal mapping, and functional expression of human brain glutamate receptors. *Proc. Natl. Acad. Sci. USA* 89, 1443-1447.
29. Battista JR, Ohta T, Nohmi T, Sun W, and Walker GC (1990). Dominant negative umuD mutations decreasing RecA-mediated cleavage suggest roles for intact UmuD in modulation of SOS mutagenesis. *Proc. Natl. Acad. Sci. USA* 89: 7190-7194.

30. Nohmi T, Battista JR, Ohta T, Igras V, Sun W, Walker GC (1990). Antimutagenic effect of umuD mutant plasmids: isolation and characterization of umuD mutants reduced in their ability to promote UV mutagenesis in Escherichia coli. *Basic Life Sci.* 52: 417-21.

PATENTS

1. Hirao I et al. An aptamer for dengue virus and related methods and products. PCT/SG2020/050342. Filed Jun 18, 2020.
2. Sun W, Yap TL, Ravichandraprabhu L, Hong SY. Serological test for Zika. SG patent 10202001635V. Filed Feb 25, 2020.
3. Sun W et al. Therapeutic and diagnostic antibodies specific for human alkaline phosphatases. SG patent 10202001139U. Filed Feb 07, 2020.
4. Seow WY, Sun W. Methods of producing modified agarose membrane (WO/2019/156630). Filed Jul 02, 2019.
5. Davidson BP, Graichen RE, Zweigerdt R, Xu XQ, Mummery CL, Sun W. Prostacyclin directed differentiation of cardiomyocytes from human embryonic stem cells (US8318489). Filed Dec 22, 2006.
6. Rust WL, Colman A, Sun W, Dunn NR, Phillips B, Hentze HM. Methods for the directed differentiation of embryonic stem cells (WO/2007/075807). Filed Dec 20, 2006.
7. Colman A, Sun W, Dunn NR, Phillips B, Hentze HM, Rust WL. Directed differentiation of embryonic stem cells and uses thereof (WO/2006/083782). Filed on Jan 30, 2006.
8. Thompson RF, Gomi H, Sun W. cDNA, genomic, and predicted protein sequences of learning-induced kinases (US6664086). Filed on Jun 18, 2002.
9. Sun W. Organic anion transporter genes and proteins (US6680379). Filed on Jul 12, 2000.