

# Publications

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## Recent Publications

Liew LC, Ho BX, Soh BS.

Mending a broken heart: Current strategies and limitations of cell-based therapy.  
***Stem Cell Res Ther.*** 2020 Mar 26;11(1):138. doi: 10.1186/s13287-020-01648-0.

Han HA, Pang JKS, Soh BS.

Mitigating off-target effects in CRISPR/Cas9-mediated in vivo gene editing.  
***J Mol Med (Berl)***. 2020 Mar 20. doi: 10.1007/s00109-020-01893-z.

Winanto, Khong ZJ, Soh BS\*, Fan Y\*, Ng SY\*.

Organoid cultures of MELAS neural cells reveal hyperactive Notch signaling that impacts neurodevelopment.

***Cell Death Dis.*** 2020 Mar 13;11(3):182. doi: 10.1038/s41419-020-2383-6. (\*Co-corresponding author).

Pang JKS, Phua QH, Soh BS.

Applications of miRNAs in cardiac development, disease progression and regeneration.  
***Stem Cell Res Ther.*** 2019 Nov 21;10(1):336. doi: 10.1186/s13287-019-1451-2.

Pek NMQ, Phua QH, Ho BX, Pang JKS, Hor JH, An O, Yang HH, Yu Y, Fan Y, Ng SY, Soh BS.

Mitochondrial 3243A > G mutation confers pro-atherogenic and pro-inflammatory properties in MELAS iPS derived endothelial cells.

***Cell Death Dis.*** 2019 Oct 22;10(11):802. doi: 10.1038/s41419-019-2036-9.

Lim GS, Hor JH, Ho NRY, Wong CY, Ng SY, Soh BS\*, Shao H\*.

Microhexagon gradient array directs spatial diversification of spinal motor neurons.

***Theranostics.*** 2019 Jan 1;9(2):311-323. doi: 10.7150/thno.29755.

(\*Co-corresponding author).

Fan Y#, Ho XB#, Pang JKS, Pek MQN, Hor JH, Ng SY\*, Soh BS\*.

Wnt/ $\beta$ -catenin mediated signaling re-activates proliferation of matured cardiomyocytes.

***Stem Cell Res Ther.*** 2018 Dec 7;9(1):338. doi: 10.1186/s13287-018-1086-8. (\*Co-corresponding author).

Li Y, Kang XJ, Pang JKS, Soh BS, Yu Y, Fan Y.

Human Germline Editing: Insights to future clinical treatment of diseases.

**Protein Cell.** 2018 Nov 14. doi: 10.1007/s13238-018-0594-8.

Hor JH, Soh ESY, Tan LY, Lim VJW, Santosa MM, Winanto W, Ho XB, Fan Y, Soh BS\*, Ng SY\*.

Cell cycle inhibitors protect motor neurons in an organoid model of spinal muscular atrophy.

**Cell Death and Disease** (2018)9:1100 DOI 10.1038/s41419-018-1081-0. (Co-corresponding)

Ho XB, Loh SJH, Chan WK, Soh BS.

In vivo genome editing as a therapeutic approach.

**Int J Mol Sci.** 2018 Sep 12;19(9). pii: E2721. doi: 10.3390/ijms19092721.

Ho XB\*, Pek MQN\*, Soh BS.

Disease modeling using 3D organoids derived from human induced pluripotent stem cells.

**Int J Mol Sci.** 2018 Mar 21;19(4). pii: E936. doi: 10.3390/ijms19040936.

Ramanathan N, Tan HNE, Loh LJ, Soh BS, Yap WN.

Tocotrienol is a cardioprotective agent against ageing-associated cardiovascular disease and its associated morbidities.

**Nutrition & Metabolism.** 2018 15:6. doi: 10.1186/s12986-018-0244-4

Yang Y, Wu H, Kang X, Liang Y, Lan T, Li T, Tan T, Peng J, Zhang Q, An G, Liu Y, Yu Q, Ma Z, Lian Y, Soh BS, Chen Q, Liu P, Chen Y, Sun X, Li R, Zhen X, Liu P, Yu Y\*, Li X\*, Fan Y\*.

Targeted elimination of mutant mitochondrial DNA in MELAS iPSCs by mito-TALENs.

**Protein Cell.** 2018 Jan 9. doi: 10.1007/s13238-017-0499-y

Kang X, Chiong INC, Soh BS\*, Fan Y\*.

Addressing challenges in the clinical applications associated with CRISPR/Cas9 technology and ethical questions to prevent its misuse.

**Protein Cell.** 2017 Oct 6. doi: 10.1007/s13238-017-0477-4. (\*Co-corresponding author)

Zheng D, Soh BS, Yin L, Hu G, Chen Q, Choi H, Han J, Chow VT, Chen J.

Differentiation of club cells to alveolar epithelial cells in vitro.

**Sci Rep.** 2017 Jan 27;7:41661. doi: 10.1038/srep41661.

Tan HN, Tay ZY, Soh BS.

Intervention for cardiac repair: A clinical perspective..

**Curr Stem Cell Res Ther.** 2017 Jan 12. [Epub ahead of print]

Soh BS, Ng SY, Wu H, Buac K, Park JH, Lian X, Xu J, Foo KS, Felldin U, He X, Nichane M, Yang H, Bu L, Li RA, Lim B, Chien KR.

Endothelin-1 supports clonal derivation and expansion of cardiovascular progenitors derived from human embryonic stem cells.

**Nat Commun.** 2016 Mar 8;7:10774. doi: 10.1038/ncomms10774.

Ng SY\*, Soh BS\*, Rodriguez-Muela N, Hendrickson DG, Price F, Rinn JL, Rubin LL.

Genome-wide RNA-seq of human motor neurons implicates selective ER stress activation in Spinal Muscular Atrophy.

**Cell Stem Cell.** 2015 Aug 26. pii: S1934-5909(15)00358-6. (\*co-first author)

Soh BS\*, Buac K\*, Xu H\*, Li E, Ng SY, Wu H, Chmielowiec J, Jiang X, Bu L, Li RA, Cowan C, Chien KR.

N-cadherin prevents the premature differentiation of second heart field progenitors in the pharyngeal mesoderm microenvironment.

**Cell Res.** 2014 Dec;24(12):1420-32. (Featured article) (\*co-first author).

Tam WL, Lu H, Buikhuisen J, Soh BS, Lim E, Reinhardt F, Wu ZJ, Krall JA, Bierie B, Guo W, Chen X, Liu XS, Brown M, Lim B, Weinberg RA.

Protein kinase C  $\alpha$  is a central signaling node and therapeutic target for breast cancer stem cells.

**Cancer Cell.** 2013 Sep 9;24(3):347-64.

Ng SY, Bogu GK, Soh BS, Stanton LW.

The long non-coding RNA RMST interacts with SOX2 to regulate neurogenesis.

**Mol. Cell.** 2013 Aug 8;51(3):349-59.

Ng SY, Lin L, Soh BS, Stanton LW.

Long non-coding RNAs in development and disease of the central nervous system.

**Trends Genetics.** 2013 Aug;29(8):461-8.

Soh BS, Wu H, Chien KR.

Cardiac regenerative medicine 2.0.

**Nat Biotechnol.** 2013 Mar;31(3):209-11.

Soh BS\*, Zheng D, Yeo SL, Yang H, Ng SY, Wong LH, Zhang W, Li P, Nichane M, Asmat A, Wong PS, Wong PC, Su LL, Mantalaris A, Lu J, Xian W, McKeon F, Chen J, Lim EH\* and Lim B\*.

CD166(pos) Subpopulation From Differentiated Human ES and iPS Cells Support Repair of Acute Lung Injury.

**Mol Ther.** 2012 Dec;20(12):2335-46. (\*Co-corresponding)

Zhang WC, Shyh-Chang N, Yang H, Rai A, Umashankar S, Ma S, Soh BS, Sun LL, Tai BC, Nga ME, Bhakoo KK, Jayapal SR, Nichane M, Yu Q, Ahmed DA, Tan C, Sing WP, Tam J, Thirugananam A, Noghabi MS, Huei Pang Y, Ang HS, Robson P, Kaldis P, Soo RA, Swarup S, Lim EH, Lim B.

Glycine Decarboxylase Activity Drives Non-Small Cell Lung Cancer Tumor-Initiating Cells and Tumorigenesis.

**Cell.** 2012 Jan 20;148(1-2):259-72.

Chia NY, Chan YS, Feng B, Lu X, Orlov YL, Moreau D, Kumar P, Yang L, Jiang J, Lau MS, Huss M, Soh BS, Kraus P, Li P, Lufkin T, Lim B, Clarke N, Bard F, Ng HH.

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**Nature.** 2010 Nov 11;468(7321):316-20.

Han J, Yuan P, Yang H, Zhang J, Soh BS, Li P, Lim SL, Cao S, Tay J, Orlov YL, Lufkin T, Ng HH, Tam WL, Lim B.

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**Nature.** 2010 Feb 25;463(7284):1096-100.

Soh BS, Song CM, Vallier L, Li P, Choong C, Yeo BH, Lim EH, Pedersen RA, Yang HH, Rao M, Lim B.

Pleiotrophin enhances clonal growth and long-term expansion of human embryonic stem cells.

**Stem Cells.** 2007 Dec;25(12):3029-37.

Zhang J, Tam WL, Tong GQ, Wu Q, Chan HY, Soh BS, Lou Y, Yang J, Ma Y, Chai L, Ng HH, Lufkin T, Robson P, Lim B.

Sall4 modulates embryonic stem cell pluripotency and early embryonic development by the transcriptional regulation of Pou5f1.

**Nat Cell Biol.** 2006 Oct;8(10):1114-23.

Lee YK, Chew PF, Soh BS, et al.

Enhancing phagocytic activity of hemocytes and disease resistance in the prawn *Penaeus*

merguiensis by feeding *Spirulina platensis*.

***J. App Phycology*** 2003 Jul; 15 (4): 279-287.

Loke P, Goh LL, Soh BS, Yeow P and Sim TS.

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***J. Ind microbial Biotechnol.*** 2002 Apr; 28(4): 239-43

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***Biochim Biophys Acta.*** 2001 Dec 3; 1522(2): 112-7

Lee YK, Soh BS and Wu JH.

Quantitative assessment of phagocytic activity of hemocytes in prawn, *Penaeus merguensis* by flow cytometric analysis.

***Cytometry.*** 2001 Jan 1;43(1):82-85