Danwei Huangfu, CV

Member & Professor
Developmental Biology Program
Sloan Kettering Institute
Memorial Sloan Kettering Cancer Center

huangfud@mskcc.org
http://www.mskcc.org/research/lab/danwei-huangfu
1275 York Avenue, New York, NY 10065, USA
https://orcid.org/0000-0002-1145-6199

Training & Education

2005-2010	Postdoctoral Fellow, Harvard University, Cambridge, MA, US (Advisor: Dr. Douglas A. Melton)
2005	Ph.D. in Neuroscience, Weill Graduate School of Medical Sciences, Cornell University, New York, NY, US (Advisor: Dr. Kathryn V. Anderson)
1997	B.S. with Honors in Genetics, Fudan University, Shanghai, China

Academic Positions & Appointments

2020-pres.	Member, Developmental Biology Program, Sloan Kettering Institute, New York, NY, US
2020-pres.	Professor, Cell and Developmental Biology Program, Weill Graduate School of Medical Sciences, Cornell University, New York, NY, US
2016-2020	Associate Member, Developmental Biology Program, Sloan Kettering Institute, New York, NY, US
2016-2020	Associate Professor, Cell and Developmental Biology Program, Weill Graduate School of Medical Sciences, Cornell University, New York, NY, US
2010-2016	Assistant Member, Developmental Biology Program, Sloan Kettering Institute, New York, NY, US
2010-2016	Assistant Professor, Cell and Developmental Biology Program, Weill Graduate School of Medical Sciences, Cornell University, New York, NY, US

Honors & Awards

2014	Young Investigator Award, Santa Cruz Developmental Biology Meeting
2012-2014	March of Dimes Birth Defects Foundation Basil O'Connor Starter Scholar
2011-2014	Louis V. Gerstner Jr. Investigator
2010	Award from Harvard Catalyst & InnoCentive Prize for the winning submission to the Ideation Challenge on "What Do We Not Know to Cure Type 1 Diabetes"
2006-2009	Helen Hay Whitney Postdoctoral fellowship
2004	The Julian R. Rachele Prize in recognition of the best graduate student research paper for 2003-2004, Weill Graduate School of Medical Sciences, Cornell University
2004	Frank Lappin Horsfall, Jr. Fellowship for Distinguished Achievement, Memorial Sloan Kettering Cancer Center
2002	The Keystone Symposium Travel Scholarship for the Development of the Spinal Cord and Neural Crest meeting
1996	Bao Steel Corp. Scholarship, Fudan University
1993-1997	People's Scholarship, Fudan University
1990-1997	Shu Ping (Soh Bing) Scholarship

Membership of Journal Editorial Boards

Editorial Board Member: *Stem Cell Reports*, *Gene and Genome Editing*

Bibliography

Research Papers

Cui J, Zhang C, Lee JE, Bartholdy BA, Yang D, Liu Y, Erler P, Galbo PM Jr, Hodge DQ, **Huangfu D**, Zheng D, Ge K, Guo W. MLL3 loss drives metastasis by promoting a hybrid epithelial-mesenchymal transition state. ***Nat Cell Biol.*** 2023 Jan;25(1):145-158.

Chen T, Alcorn H, Devbhandari S, Remus D, Lacy E, **Huangfu D**[#], Anderson KV. A hypomorphic mutation in Pold1 disrupts the coordination of embryo size expansion and morphogenesis during gastrulation. ***Biol Open*** 2022 Aug;11(8):bio059307.

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Lan Y, Banks KM, Pan H, Verma N, Dixon GR, Zhou T, Ding B, Elemento O, Chen S, **Huangfu D**, Evans T. Stage-specific regulation of DNA methylation by TET enzymes during human cardiac differentiation. ***Cell Reports*** 2021 Dec;37(10):110095.

Vanoli F, Meskauskaite B, Herviou L, Mallen W, Sung YS, Fujisawa Y, Zhang L, Simon S, **Huangfu D**, Jasin M, Antonescu CR. Generation of human embryonic stem cell models to exploit the EWSR1-CREB fusion promiscuity as a common pathway of transformation in human tumors. ***Oncogene*** 2021 Aug;40(32):5095-5104.

Dixon G, Pan H, Yang D, Rosen BP, Jashari T, Verma N, Pulecio J, Caspi I, Lee K, Stransky S, Glezer A, Liu C, Rivas M, Kumar R, Lan Y, Torregroza I, He C, Sidoli S, Evans T, Elemento O[#], **Huangfu D**[#]. QSER1 protects DNA methylation valleys from de novo methylation. ***Science*** 2021 Apr 9;372(6538):eabd0875.

Vardhana SA, Arnold PK, Rosen BP, Chen Y, Carey BW, **Huangfu D**, Carmona-Fontaine C, Thompson CB, and Finley LWS. Glutamine independence is a selectable feature of pluripotent stem cells. ***Nature Metabolism*** 2019;1(7):676-687.

Lee K[♮], Cho H[♮], Rickert RW, Li QV, Pulecio J, Leslie CS[#], and **Huangfu D**[#]. FOXA2 Is Required for Enhancer Priming during Pancreatic Differentiation. ***Cell Reports*** 2019;28(2):382-393.

Li QV, Dixon G, Verma V, Rosen BP, Gordillo M, Luo R, Xu C, Wang Q, Soh C-L, Yang D, Crespo M, Shukla A, Xiang Q, Dundar F, Zumbo P, Witkin M, Koche R, Betel D, Chen S, Massagué J, Garippa R, Evans T, Beer MA[#], and **Huangfu D**[#]. Genome-scale Screens Uncover JNK/JUN signaling as a Key Barrier from Pluripotency to Human Endoderm Differentiation. ***Nature Genetics*** 2019;51(6):999-1010.

Teijeiro V[♮], Yang D[♮], Majumdar S, González F, Rickert RW, Xu C, Koche R, Verma N, Lai EC, and **Huangfu D**. DICER1 is essential for self-renewal of human embryonic stem cells. ***Stem Cell Reports*** 2018;11(3):616-625.

Amin S, Cook B, Zhou T, Ghazizadeh Z, Lis R, Zhang T, Khalaj M, Crespo M, Perera M, Xiang JZ, Zhu Z, Tomishima M, Liu C, Naji A, Evans T, **Huangfu D**[#], and Chen S[#]. Discovery of a Drug Candidate for *GLIS3*-Associated Diabetes. ***Nature Communications*** 2018;11;9(1):2681.

Verma N[♮], Pan H[♮], Doré LC, Shukla A, Li QV, Pelham-Webb B, Teijeiro V, González F, Krivtsov A, Chang C-J, Papapetrou EP, He C, Elemento O[#], and **Huangfu D**[#]. TET proteins safeguard bivalent promoters from *de novo* methylation in human embryonic stem cells. ***Nature Genetics*** 2018;50(1):83-95.

Shi Z-D[♮], Lee K[♮], Yang D[♮], Amin S, Verma N, Li QV, Zhu Z, Soh C-L, Kumar R, Evans T, Chen S[#], and **Huangfu D**[#]. Genome editing in hPSCs reveals *GATA6* haploinsufficiency and a genetic interaction with *GATA4* in human pancreatic development. ***Cell Stem Cell*** 2017;20(5):675-688. PMC5419850.

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Zhu Z, Li QV, Lee K, Rosen BP, González F, Soh C-L, and **Huangfu D**. Genome editing of lineage determinants in human pluripotent stem cells reveals mechanisms of pancreatic development and diabetes. ***Cell Stem Cell*** 2016;18(6):755-768. PMC4892994.

Zhu Z[♮], Verma N[♮], González F, Shi Z-D, and **Huangfu D**. A CRISPR/Cas-mediated selection-free knockin in human embryonic stem cells. ***Stem Cell Reports*** 2015;4(6):1103-1111. PMC4471821.

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González F[♮], Zhu Z[♮], Shi Z.-D[♮], Lelli K, Verma N, Li QV, and **Huangfu D**. An iCRISPR platform for rapid, multiplexable, and inducible genome editing in human pluripotent stem cells. ***Cell Stem Cell*** 2014;15(2):215-226. PMCID: PMC4127112. (*Selected by Cell Stem Cell in the* ***Best of 2014*** *collection*)

González F, Georgieva D, Vanoli F, Shi Z-D, Stadtfeld M, Ludwig T, Jasin M[#], and **Huangfu D**[#]. Homologous Recombination DNA Repair Genes Play a Critical Role in Reprogramming to a Pluripotent State. ***Cell Reports*** 2013;3(3):651-660. PMID: 23478019. PMCID: PMC4315363.

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Reviews and Commentaries

Sackett SD, Kaplan SJ, Mitchell SA, Brown ME, Burrack AL, Grey S, **Huangfu D**, Odorico J. Genetic Engineering of Immune Evasive Stem Cell-Derived Islets. ***Transpl Int.*** 2022 Dec 5;35:10817.

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Beer MA[#], Shigaki D, and **Huangfu D**[#]. Enhancer predictions and genome-wide regulatory circuits. ***Annual Review of Genomics & Human Genetics*** 2020;21:37-54.

Li QV[♮], Rosen BP[♮], and **Huangfu D**. Decoding pluripotency: Genetic screens to interrogate the acquisition, maintenance, and exit of pluripotency. ***Wiley Interdiscip Rev Syst Biol Med*** 2020;12(1):e1464.

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Pulecio J, Verma N, Mejia-Ramirez E, **Huangfu D**[#], and Raya R[#]. CRISPR/Cas9-based engineering of the epigenome. ***Cell Stem Cell*** 2017;21(4):431-447.

Shi Z-D, Soh C-L, Zhu Z, and **Huangfu D**. Genome editing and directed differentiation of hPSCs for interrogating lineage determinants in human pancreatic development. ***J Vis Exp*** 2017Mar 5;(121). PMID: 28287608.

Verma N[♮], Zhu Z[♮], and **Huangfu D**. CRISPR/Cas-mediated knockin in human pluripotent stem cells. ***Methods in Mol Biol*** 2017;1513:119-140.

Soh C-L and **Huangfu D**. CRISPR/Cas9-mediated mutagenesis of human pluripotent stem cells in defined xeno-free E8 medium. ***Methods in Mol Biol*** 2017;1498:57-78.

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Huangfu D and Anderson KV. Signaling from Smo to Ci/Gli: conservation and divergence of Hedgehog pathways from Drosophila to vertebrates. ***Development*** 2006;133(1):3-14. PMID: 16339192.

[♮]: Equal contribution first-authors; [#]: Shared corresponding authors