



## Jan Nolta, Ph.D.

### Research/Academic Interests

Jan A. Nolta, Ph.D., is the director of the Stem Cell Program at UC Davis School of Medicine and directs the university's Institute for Regenerative Cures. She also serves as scientific director of the large UC Davis Good Manufacturing Practice facility and the California Umbilical Cord Blood Collection Program. In 2013, she was named one of the "Top 50 Global Stem Cell Influencers." The UC Davis Stem Cell Program has more than 150 faculty members collaborating to work toward regenerative medicine-related cures for a spectrum of diseases and injuries. The current research in Nolta's laboratory is focused on developing therapies that will use gene-modified bone marrow-derived mesenchymal stem/stromal cells to deliver factors for treating Huntington's disease and vascular disorders. The group she oversees at UC Davis' Shared Translational Laboratory is helping university teams develop numerous clinical trials for gene and cell therapy, with several adult stem cell therapies already in the clinic and more than a dozen in the pipeline.

**Title** Professor

**Specialty** Stem Cell Biology, Research

**Center/Program Affiliation** [Institute for Regenerative Cures](#)  
[Stem Cell Research Program](#)  
[UC Davis Comprehensive Cancer Center](#)

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**Education** M.S., Molecular Genetics, UC Davis, Davis CA 1987  
Ph.D., Molecular Microbiology, University of Southern California, Los Angeles CA 1994  
B.S., California State University, Sacramento, Sacramento CA 1984

**Fellowships** Stem Cell Therapy/Gene Therapy, Children's Hospital of Los Angeles, Los Angeles CA 1994-1997

**Professional Memberships** American Society of Gene & Cell Therapy (ASGCT)  
International Society of Cellular Therapy  
Lifetime Member, California Scholarship Foundation

**Honors and Awards** Lifetime Leadership Award, Help 4 HD International, 2017  
Honoree, Huntington's Disease Society of America, 2017  
Biomedical Research Exemplar, The Research Exemplar Project, 2017  
Honorable Recognition, UC Davis Women in Medicine in Health Sciences, 2016  
Dean's Excellence in Mentoring Award, UC Davis Health System, 2013



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Top 50 Global Stem Cell Influencers, 2013  
American Association for the Advancement of Science (AAAS) Fellows, 2012  
Dean's Team Award for Excellence in Research, UC Davis, School of Medicine, 2011  
Distinguished Service Award - Distinguished Alumni of the Year, California State University, Sacramento, 2009  
Distinguished Leadership Award, Huntington's Disease Society of America, 2008  
James A. Shannon Award for New Investigators: National Institutes of Health, 1997  
International Society of Hematology New Investigator Award, 1996  
Research Career and Development Award, CHLA Research Institute, 1997  
University of Southern California Graduate Honor List, 1994  
UC Davis Graduate Honor List for Masters courses, 1984  
Dean's Honor List, California State University, Sacramento, 1984  
Golden Key Honor Society, 1978  
Honors at Entrance, CSU Sacramento, 1978

### Select Recent Publications

For a list of Dr. Nolta's publications, please [click here](#) (opens new window).

Shieh AK, Singh SG, Nathe C, Lian E, Haudenschild DR, Nolta JA, Lee CA, Giza E, Kreulen CD. Effects of Micronized Cartilage Matrix on Cartilage Repair in Osteochondral Lesions of the Talus. *Cartilage*. 2020 Jul;11(3):316-322. doi:10.1177/1947603518796125. Epub 2018 Aug 29.

Nolta JA. The age of immunotherapy-Celebrating STEM CELLS' contribution to understanding mechanisms of immune system development and modulation. *Stem Cells*. 2020 Jan;38(1):4-5. doi:10.1002/stem.3137.

Nolta JA. Now More Than Ever: The Importance of Reporting Evidence-Based Science. *Stem Cells*. 2019 Dec;37(1):4-5. doi:10.1002/stem.2962.

Showalter MR, Wancewicz B, Fiehn O, Archard JA, Clayton S, Wagner J, Deng P, Halmai J, Fink KD, Bauer G, Fury B, Perotti NH, Apperson M, Butters J, Belafsky P, Farwell G, Kuhn M, Nolta JA, Anderson JD. Primed mesenchymal stem cells package exosomes with metabolites associated with immunomodulation. *Biochem Biophys Res Commun*. 2019 May;512(4):729-735. doi:10.1016/j.



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bbrc.2019.03.119. Epub 2019 Mar 26.

Yuan O, Lin C, Wagner J, Archard JA, Deng P, Halmaj J, Bauer G, Fink KD, Fury B, Perotti NH, Walker JE, Pollock K, Apperson M, Butters J, Belafsky P, Farwell DG, Kuhn M, Nolta J, Anderson JD. Exosomes Derived from Human Primed Mesenchymal Stem Cells Induce Mitosis and Potentiate Growth Factor Secretion. *Stem Cells Dev.* 2019 Mar 15;28(6):398-409. doi:10.1089/scd.2018.0200. Epub 2019 Feb 26.

Fierro FA, Magner N, Beegle J, Dahlenburg H, Logan White J, Zhou P, Pepper K, Fury B, Coleal-Bergum DP, Bauer G, Gruenloh W, Annett G, Pifer C, Nolta JA. Mesenchymal stem/stromal cells genetically engineered to produce vascular endothelial growth factor for revascularization in wound healing and ischemic conditions. *Transfusion.* 2019 Feb;59(S1):893-897. doi:10.1111/trf.14914. Epub 2018 Nov 1.

Gao K, Kumar P, Cortez-Toledo E, Hao D, Reynaga L, Rose M, Wang C, Farmer D, Nolta J, Zhou J, Zhou P, Wang A. Potential longterm treatment of hemophilia A by neonatal co-transplantation of cord blood-derived endothelial colony-forming cells and placental mesenchymal stromal cells. *Cell Res Ther.* 2019 Jan 22;10(1):34. doi:10.1186/s13287-019-1138-8.

Cortez-Toledo E, Rose M, Agu E, Dahlenburg H, Yao W, Nolta JA, Zhou P. Enhancing Retention of Human Bone Marrow Mesenchymal Stem Cells with Prosurvival Factors Promotes Angiogenesis in a Mouse Model of Limb Ischemia. *Stem Cells Dev.* 2019 Jan 15;28(2):114-119. Published online 2019 Jan 10. doi:10.1089/scd.2018.0090.

Pham MT, Pollock KM, Rose MD, Cary WA, Stewart HR, Zhou P, Nolta JA, Waldau B. Generation of human vascularized brain organoids. *Neuroreport.* 2018 May 2;29(7):588-593. doi:10.1097/WNR.0000000000001014.

Feng JF, Liu J, Zhang L, Jiang JY, Russell M, Lyeth BG, Nolta JA, Zhao M. Electrical Guidance of



Jan Nolte, Ph.D.

Human Stem Cells in the Rat Brain. Stem Cell Reports. 2017 Jul;9(1):177-189. Published online 2017 Jun 29. doi:10.1016/j.stemcr.2017.05.035.

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