Johnathon David Anderson, Ph.D.

Research/Academic Interests Dr. Anderson's research focuses on how tumor cells communicate with the cells that surround them in the tumor bed using extracellular vesicles called exosomes. He investigates how cancer cells modify the function of stromal and immune cells in the tumor bed to make them more supportive of tumor progression. This work ultimately aims to develop new immunotherapies for the treatment of head and neck cancer.

Title Associate Professor in Residence

Specialty Regenerative Medicine, Drug Discovery

Department Otolaryngology

Division Head and Neck Surgery

Center/Program Affiliation Institute for Regenerative Cures
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Education Ph.D., Genetics, UC Davis, Institute for Regenerative Cures, Davis CA 2015
Postdoc, Regenerative Medicine, UC Davis, Institute for Regenerative Cures, Sacramento CA 2017
B.S., Genetics, UC Davis, Davis CA 2011

Internships Pharmacology, Oxford University, Oxford, UK 2018

Fellowships Cardiovascular Research, UC Davis Medical Center, Sacramento CA 2015-2017

Professional Memberships American Society for Experimental Neurotherapeutics
American Society of Exosomes and Microvesicles
International Society of Extracellular Vesicles

Honors and Awards Dickenson Fellowship, 2017
ASNTR 2016 Research Award, 2017
NIH T32 Cardiovascular Medicine Fellowship 2014, 2015, 2016
National Science Foundation GROW, 2013

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Phi Sigma Biological Sciences Honor Society Fellow, 2013

Select Recent Publications

Börger V, Weiss DJ, Anderson JD, Borràs FE, Bussolati B, Carter DRF, Dominici M, Falcón-Pérez JM, Gimona M, Hill AF, Hoffman AM, de Kleijn D, Levine BL, Lim R, Lötvall J, Mitsialis SA, Monguió-Tortajada M, Muraca M, Nieuwland R, Nowocin A, O'Driscoll L, Ortiz LA, Phinney DG, Reischl I, Rohde E, Sanzenbacher R, Théry C, Toh WS, Witwer KW, Lim SK, Giebel B. ISEV and ISCT statement on EVs from MSCs and other cells: considerations for potential therapeutic agents to suppress COVID-19. Cytotherapy. 2020 May 16. doi:10.1016/j.jcyt.2020.05.002. PMID: 32425691.

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Elahi FM, Farwell DG, Nolta JA, Anderson JD. Preclinical translation of exosomes derived from mesenchymal stem/stromal cells. Stem Cells. 2020 Jan;38(1):15-21. doi: 10.1002/stem.3061. Epub 2019 Oct 1. PMID:31381842.

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Yuan O, Lin C, Wagner J, Archard JA, Deng P, Halmai 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. PMID:30638129.

Théry C, Witwer KW, Aikawa E, Alcaraz MJ, Anderson JD, et al. Minimal information for studies of extracellular vesicles 2018 (MISEV2018): a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines. J Extracell Vesicles. 2018 Nov 23;7(1):1535750. doi:10.1080/20013078.2018.1535750. eCollection 2018. PMID:30637094.

Moisseiev E, Anderson JD, Oltjen S, Goswami M, Zawadzki RJ, Nolta JA, Park SS. Protective Effect of Intravitreal Administration of Exosomes Derived from Mesenchymal Stem Cells on Retinal Ischemia. Curr Eye Res. 2017 Oct;42(10):1358-1367. doi:10.1080/02713683.2017.1319491. Epub 2017 Jun 21. PMID:28636406.

Park SS, Moisseiev E, Bauer G, Anderson JD, Grant MB, Zam A, Zawadzki RJ, Werner JS, Nolta JA. Advances in bone marrow stem cell therapy for retinal dysfunction. Prog Retin Eye Res. 2017 Jan;56:148-165. doi:10.1016/j.preteyeres.2016.10.002. Epub 2016 Oct 23. PMID:27784628.

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