

## **Dopaminergic neurons derived from iPSCs in non-human primate model**

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*Stem Cells and Development* is dedicated to communication and objective analysis of developments in the biology, characteristics, and therapeutic utility of stem cells, especially those of the hematopoietic system. Credit: Mary Ann



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Researchers have demonstrated the ability to generate dopaminergic neurons in the laboratory from induced pluripotent stem cells (iPSCs) derived from fibroblast cells of adult marmoset monkeys. This new study, documenting the iPSCs' pluripotent properties and the potential for using this animal model to develop regenerative medicine approaches for dopamine-related disorders such as Parkinson's disease, is published in *Stem Cells and Development*.

Marina Emborg, MD, PhD and colleagues from University of Wisconsin-Madison coauthored the article entitled "Induced Pluripotent Stem Cell-Derived Dopaminergic Neurons from Adult Common Marmoset Fibroblasts." The researchers reported that the marmoset fibroblastderived iPSCs could differentiate into all three embryonic cell lineages: mesoderm, ectoderm, and endoderm. When stimulated to pattern themselves as neurons, the iPSCs expressed genes and other biomarkers consistent with a dopaminergic phenotype.

"This important study advances the marmoset as a model for Parkinson's disease, for the first time deriving a line from the adult marmoset," says Editor-in-Chief Graham C. Parker, PhD, The Carman and Ann Adams Department of Pediatrics, Wayne State University School of Medicine, Detroit, MI.

**More information:** Scott C. Vermilyea et al, Induced Pluripotent Stem Cell-Derived Dopaminergic Neurons from Adult Common Marmoset Fibroblasts, *Stem Cells and Development* (2017). DOI: <u>10.1089/scd.2017.0069</u>



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