

"iSCORE-PD: scRNA-seq of irradiated WIBR3 hESCs".

Dataset Description:

Single-cell RNA sequencing of WIBR3 human embryonic stem cells (hESCs) exposed to ionizing radiation at doses of 0, 0.5, 2, 5, and 10 Gy. Cells were assayed 24h post-irradiation via multiplexed scRNASeq using MULTI-seq reagents.

Authors:

- Busquets, Oriol; [ORCID:0000-0002-1372-9699](#); Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Rose F. Kennedy Center, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461, USA, & Ruth L. and David S. Gottesman Institute for Stem Cell and Regenerative Medicine Research, Albert Einstein College of Medicine, 1301 Morris Park Ave., Bronx, NY 10461, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Li, Hanqin; [ORCID:0000-0001-7995-1084](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Innovative Genomics Institute, University of California, Berkeley, CA, 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Syed, Khaja Mohieddin; [ORCID:0000-0002-7682-7608](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Alvarez-Jerez, Pilar; [ORCID:0000-0002-5812-1898](#); Center for Alzheimer's and Related Dementias, National Institute on Aging and National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, 20892, USA, & Department of Neurodegenerative Disease, UCL Queen Square Institute of Neurology, University College London, London, UK
- Dunnack, Jesse; [ORCID:0000-0002-0387-0090](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Lo Bu, Riana; [ORCID:0000-0002-1732-5878](#); Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Rose F. Kennedy Center, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Verma, Yogendra; [ORCID:0000-0003-3380-6089](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Pangilinan, Gabriella R.; [ORCID:0000-0003-2662-7883](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Martin, Annika; [ORCID:0009-0006-3369-1495](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA
- Straub, Jannes; [ORCID:0000-0002-7178-1663](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Du, YuXin; [ORCID:0000-0001-5212-5372](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Simon, Vivien M.; [ORCID:0009-0001-1976-0937](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA.
- Poser, Steven; [ORCID:0000-0003-4868-1389](#); Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Rose F. Kennedy Center, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Bush, Zipporah; [ORCID:0000-0002-6304-9579](#); Department of Genetics, Albert Einstein College of Medicine, 1301 Morris Park Ave., Bronx, NY 10461, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Diaz, Jessica; [ORCID:0000-0001-7165-6590](#); Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Rose F. Kennedy Center, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Sahagun, Atehsa; [ORCID:0000-0001-7521-3279](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Department of Neuroscience, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Gao, Jianpu; [ORCID:0009-0007-4535-6587](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA.
- Hong, Samantha; [ORCID:0009-0001-8968-6461](#); Center for Alzheimer's and Related Dementias, National Institute on Aging and National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, 20892, USA
- Hernandez, Dena G.; [ORCID:0000-0002-0188-9927](#); Laboratory of Neurogenetics, National Institute on Aging, National Institutes of Health, Bethesda, MD, 20892, US.
- Levine, Kristin S.; [ORCID:0000-0002-5702-0980](#); Center for Alzheimer's and Related Dementias, National Institute on Aging and National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, 20892, USA
- Pochet, Nathalie; [ORCID:0000-0003-1820-5656](#); Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Rose F. Kennedy Center, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461, USA.
- Booth, Ezgi O.; [ORCID:0000-0001-9213-8426](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Blanchette, Marco; [ORCID:0009-0005-5592-7166](#); LiftOff Biosolution. 813 Isbel Ct, Santa Cruz 95060, USA.
- Bateup, Helen S.; [ORCID:0000-0002-0135-0972](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Department of Neuroscience, University of California, Berkeley, Berkeley, CA 94720, USA, & Chan Zuckerberg Biohub, San Francisco, CA, 94158, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA

- Rio, Donald C.; [ORCID:0000-0002-4775-3515](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Blauwendraat, Cornelis; [ORCID:0000-0001-9358-8111](#); Center for Alzheimer's and Related Dementias, National Institute on Aging and National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, 20892, USA, & Laboratory of Neurogenetics, National Institute on Aging, National Institutes of Health, Bethesda, MD, 20892, US
- Hockemeyer, Dirk; [ORCID:0000-0002-5598-5092](#); Department of Molecular and Cell Biology, University of California, Berkeley, Berkeley, CA 94720, USA, & Innovative Genomics Institute, University of California, Berkeley, CA, 94720, USA, & Chan Zuckerberg Biohub, San Francisco, CA, 94158, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA
- Soldner, Frank; [ORCID:0000-0002-7102-8655](#); Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Rose F. Kennedy Center, Albert Einstein College of Medicine, 1410 Pelham Parkway South, Bronx, NY 10461, USA, & Ruth L. and David S. Gottesman Institute for Stem Cell and Regenerative Medicine Research, Albert Einstein College of Medicine, 1301 Morris Park Ave., Bronx, NY 10461, USA, & Department of Genetics, Albert Einstein College of Medicine, 1301 Morris Park Ave., Bronx, NY 10461, USA, & Aligning Science Across Parkinson's (ASAP) Collaborative Research Network, Chevy Chase, MD, 20815, USA

ASAP Team: Rio

Dataset Name: rio-hesc-sc-rnaseq-irradiated, v0.1

Principal Investigator: Donald Rio don_rio@berkeley.edu

Co-Principal Investigators: Frank Soldner frank.soldner@einsteinmed.edu, **Co-Principal Investigators:** Dirk Hockemeyer hockemeyer@berkeley.edu,

Co-Principal Investigators: Helen Bateup bateup@berkeley.edu,

Dataset Submitter: Jesse Dunnack jessedunnack@berkeley.edu

Publication DOI:

Grant IDs: ['ASAP-024409', 'ASAP-000486']

ASAP Lab:

ASAP Project: iSCORE-PD

Project Description: The iSCORE-PD project generated a collection of 65 isogenic human stem cell lines harboring Parkinson's disease-associated mutations in an isogenic WIBR3 hESC background, enabling genetically controlled studies of PD risk genes in disease-relevant cell types.

Submission Date: 2026-04-15

This dataset is made available to researchers via the ASAP CRN Cloud: cloud.parkinsonsroadmap.org. Instructions for how to request access can be found in the [User Manual](#).

This research was funded by the Aligning Science Across Parkinson's Collaborative Research Network (ASAP CRN), through the Michael J. Fox Foundation for Parkinson's Research (MJFF).

This Zenodo deposit was created by the ASAP CRN Cloud staff on behalf of the dataset authors. It provides a citable reference for a CRN Cloud Dataset