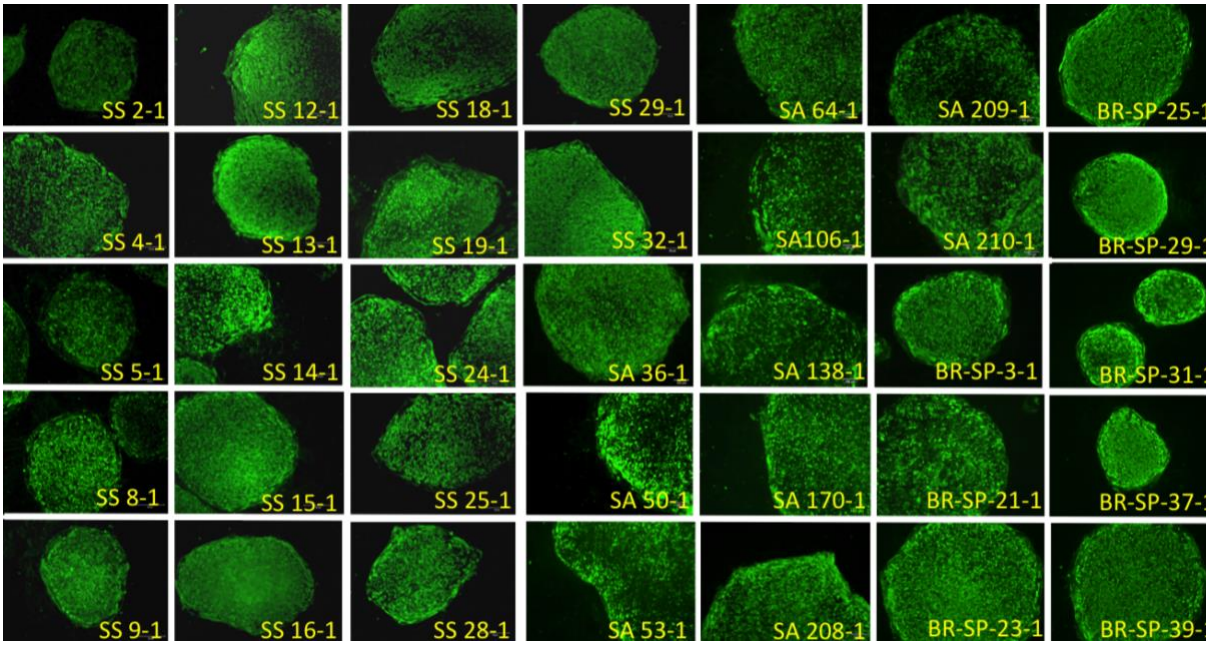
An ethnically diverse library of sickle cell disease-specific iPSCs

We generated a diverse and fully characterized library of sickle cell disease (SCD)-specific iPSCs from patients of different ethnicities, β-globin gene haplotypes and HbF levels (**Fig.**). Peripheral blood samples were procured from three geographical locations to obtain a wide representation of four common HbS gene haplotypes. This starting material was used to generate 54 independent iPSC lines from individuals of African American, Brazilian, and Saudi Arabian descent with the Benin, Bantu and Arab Indian (AI) haplotypes. This one-of-a-kind resource, the largest sickle cell iPSC bank in the world, can be leveraged for the study of globin ontogeny, disease modeling, and the development and validation of novel therapeutics in the genetic background of patients suffering from SCD.



Representative photomicrographs of Tra-1-81 staining of sickle cell anemia disease-specific iPSCs. Human iPSC lines were generated from ethnically diverse sickle cell groups: African American (SS), Saudi Arabian (SA) and Brazilian (BR).

Reference:

Park, S. *et al.* A Comprehensive, Ethnically Diverse Library of Sickle Cell Disease-Specific Induced Pluripotent Stem Cells. *Stem cell reports* **8**, 1076-1085, doi:10.1016/j.stemcr.2016.12.017 (2017).