

Publication

A familiar stranger: CD34 expression and putative functions in SVF cells of adipose tissue

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 3714469

Author(s) Scherberich, Arnaud; Di Maggio, Nunzia Di; McNagny, Kelly M.

Author(s) at UniBasel [Scherberich, Arnaud](#) ;

Year 2013

Title A familiar stranger: CD34 expression and putative functions in SVF cells of adipose tissue

Journal World journal of stem cells

Volume 5

Number 1

Pages / Article-Number 1-8

Human adipose tissue obtained by liposuction is easily accessible and an abundant potential source of autologous cells for regenerative medicine applications. After digestion of the tissue and removal of differentiated adipocytes, the so-called stromal vascular fraction (SVF) of adipose, a mix of various cell types, is obtained. SVF contains mesenchymal fibroblastic cells, able to adhere to culture plastic and to generate large colonies in vitro, that closely resemble bone marrow-derived colony forming units-fibroblastic, and whose expanded progeny, adipose mesenchymal stem/stromal cells (ASC), show strong similarities with bone marrow mesenchymal stem cells. The sialomucin CD34, which is well known as a hematopoietic stem cell marker, is also expressed by ASC in native adipose tissue but its expression is gradually lost upon standard ASC expansion in vitro. Surprisingly little is known about the functional role of CD34 in the biology and tissue forming capacity of SVF cells and ASC. The present editorial provides a short introduction to the CD34 family of sialomucins and reviews the data from the literature concerning expression and function of these proteins in SVF cells and their in vitro expanded progeny.

Publisher Baishideng

edoc-URL <http://edoc.unibas.ch/53099/>

Full Text on edoc No;

Digital Object Identifier DOI 10.4252/wjsc.v5.i1.1

PubMed ID <http://www.ncbi.nlm.nih.gov/pubmed/23362435>

ISI-Number MEDLINE:23362435

Document type (ISI) Journal Article