

List of publication for Cellartis® DEF-CS™ Culture System

Boreström, Cecilia, et al. "Footprint-free human induced pluripotent stem cells from articular cartilage with redifferentiation capacity: A first step toward a clinical-grade cell source." <i>Stem Cells Trans. Med.</i> (2014) 3, 433-447.	Material & Methods: Establishment and maintenance of of hiPSC in DEF-CS™ to keep iPSC pluripotent with regard to expression of pluripotency markers. Further differentiation into cartilage matrix-producing cells.
Kia, Richard, et al. "MicroRNA-122: a novel hepatocyte-enriched in vitro marker of drug-induced cellular toxicity." <i>Toxicological Sciences</i> (2014): kfu269.	Material & Methods: ChiPSC18 cultured in DEF-CS™ for differentiation to Cellartis® Enhanced hiPS-HEP
Hanson, Charles, et al. "Transplantation of human embryonic stem cells onto a partially wounded human cornea in vitro." <i>Acta ophthalmologica</i> 91.2 (2013): 127-130.	Material & Methods: Culture of hESC (SA121 EF1α-GFP) in DEF-CS™ before pre culture step and subsequent transplantation to human Bowman's membrane (corneal tissue)
Norrman, Karin, et al. "Distinct gene expression signatures in human embryonic stem cells differentiated towards definitive endoderm at single-cell level." <i>Methods</i> 59.1 (2013): 59-70.	Material & Methods: SA121 maintained in DEF-CS™ before differentiation into definitive endoderm.
Ulvestad, Maria, et al. "Drug metabolizing enzyme and transporter protein profiles of hepatocytes derived from human embryonic and induced pluripotent stem cells." <i>Biochemical pharmacology</i> 86.5 (2013): 691-702.	Material & Methods: Expansion of hiPSC colonies in DEF-CS during establishment of ChiPSC4. Culture of SA181 and ChiPSC4 before production of hES-HEP and hiPS-HEP, respectively.
Sivertsson, Louise, et al. "Hepatic differentiation and maturation of human embryonic stem cells cultured in a perfused three-dimensional bioreactor." <i>Stem cells and development</i> 22.4 (2012): 581-594.	Material & Methods: SA121 maintained in DEF-CS before further differentiation into DE cells (subsequently transferred to bioreactor).
Valton, Julien, et al. "Efficient strategies for TALEN-mediated genome editing in mammalian cell lines." <i>Methods</i> 69.2 (2014): 151-170.	Material & Methods: Transfection of hiPSC by DNA electroporation, hiPSC cultured in DEF-CS before and after transfection.
Zandén, Carl, et al. "Stem cell responses to plasma surface modified electrospun polyurethane scaffolds." <i>Nanomedicine: Nanotechnology, Biology and Medicine</i> 10.5 (2014): 949-958.	Material & Methods: Culture of SA121 in DEF-CS. <i>Expansion capacity on different surfaces in DEF-CS medium (?)</i> .
Asplund, Annika, et al. "One Standardized Differentiation Procedure Robustly Generates Homogenous Hepatocyte Cultures Displaying Metabolic Diversity from a Large Panel of Human Pluripotent Stem Cells" <i>Stem Cell Rev and Rep</i> (2015)	Culture of several hPS cell lines in DEF-CS. Results showing morphology, expression of stem cell markers, generation time and karyotypes.

- **Cellartis iPS Cell to Hepatocyte Differentiation System**

Asplund, Annika, et al. "One Standardized Differentiation Procedure Robustly Generates Homogenous Hepatocyte Cultures Displaying Metabolic Diversity from a Large Panel of Human Pluripotent Stem Cells" *Stem Cell Rev and Rep* (2015)

- **Hepatocytes Derived from Human Induced Pluripotent Stem Cells**

All of these publications refer to old version of the hepatocyte product (both hESC and hiPSC derived).

Ulvestad M *et al.*

Drug metabolizing enzyme and transporter protein profiles of hepatocytes derived from human embryonic and induced pluripotent stem cells.

Biochem Pharmacol. 2013 Sep 1; **86**(5):691-702.

Yildirimman R *et al.*

Human embryonic stem cell derived hepatocyte-like cells as a tool for *in vitro* hazard assessment of chemical carcinogenicity.

Toxicol. Sci. 2011 Dec; **124**(2): 278-90.

Mantel N *et al.*

Potential markers of attenuation of YF virus after infection of stem cell-derived human hepatocytes with wild-type Asibi or live-attenuated YF17D virus.

Supplement to *The American Journal of tropical Medicine and Hygiene*, Volume 83, November 2010, Number 5, abstract 12.

Heins *et al.* *Stem Cells* 2004; **22**: 367-376.

United States National Stem Cell Bank; <http://www.nationalstemcellbank.org>

- **Cardiomyocytes Derived from Human Induced Pluripotent Stem Cells**

All of these publications refer to an old product based on a hESC line consisting of fresh cardiomyocyte clusters.

Yamazaki *et al.*

Beat-to-Beat Variability in Field Potential Duration in Human Embryonic Stem Cell-Derived Cardiomyocyte Clusters for Assessment of Arrhythmogenic Risk, and a Case Study of Its Application.

Pharmacol. & Pharm. 2014, **5**, 117-128.

<p>hnke <i>et al.</i> A novel 3D label-free monitoring system of hES-derived cardiomyocyte clusters: a step forward to in vitro cardiotoxicity testing. <i>PLoS One</i> 2013 Jul ;8(7).</p>
<p>Jonsson MK <i>et al.</i> Application of human stem cell-derived cardiomyocytes in safety pharmacology requires caution beyond hERG. <i>J. Mol. Cell Cardiol.</i> 2012 May; 52(5): 998-1008.</p>
<p>Yamazaki K <i>et al.</i> A novel method of selecting human embryonic stem cell-derived cardiomyocyte clusters for assessment of potential to influence QT interval. <i>Toxicol. In Vitro.</i> 2012 Mar; 26(2): 335-342.</p>
<p>Synnergren J <i>et al.</i> Global transcriptional profiling reveals similarities and differences between human stem cell-derived cardiomyocyte clusters and heart tissue. <i>Physiol. Genomics</i> 2012 Feb 27; 44(4): 245-258.</p>
<p>Nalos L <i>et al.</i> Comparison of the IKr blockers moxifloxacin, dofetilide and E-4031 in five screening models of pro-arrhythmia reveals lack of specificity of isolated cardiomyocytes. <i>Br. J. Pharmacol.</i> 2012 Jan; 165(2): 467-478.</p>
<p>Synnergren J <i>et al.</i> Expression of microRNAs and their target mRNAs in human stem cell derived cardiomyocyte clusters and in heart tissue. <i>Physiol. Genomics</i> 2011 May 1; 43(10): 581-594.</p>
<p>Jonsson MK <i>et al.</i> Quantified Proarrhythmic Potential of Selected Human Embryonic Stem Cell-derived Cardiomyocytes. <i>Stem Cell Res.</i> 2010 May; 4(3): 189-200.</p>
<p>Synnergren J <i>et al.</i> Molecular signature of cardiomyocyte clusters derived from human embryonic stem cells. <i>Stem Cells</i> 2008 Jul; 26(7): 1831-1840.</p>