
Peer Review Report

Peer Review of “Establishment of a Novel Fetal Ovine Heart Cell Line by Spontaneous Cell Fusion: Experimental Study”

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(*JMIRx Bio* 2024;2:e62905) doi: [10.2196/62905](https://doi.org/10.2196/62905)

KEYWORDS

immortal; cell; cells; biology; heart; cardiology; SNP; SNPs; nucleotide; nucleotides; polymorphism; polymorphisms; cellular; cardiocyte; cardiocytes; gene; genes; genetic; genetics; RNA; rRNA; genome; genomes; genotype; genotyping; genotypes; mutations; mutational

This is a peer-review report submitted for the paper “Establishment of a Novel Fetal Ovine Heart Cell Line by Spontaneous Cell Fusion: Experimental Study.”

Round 1 Review

General Comments

The paper [1] is well researched, innovative, and the methodologies are clear. There are some minor suggestions from my side.

1. Can you provide more details on the specific morphological characteristics observed during the fusion event that led to immobilization? Were there any distinct features or markers associated with the fused cells compared to nonfused cells?
2. Apart from morphological changes, were there any functional assays or markers used to confirm the immortalized phenotype of the fetal ovine heart–Saudi Arabia (FOH-SA) cell line? How

were these characteristics compared to primary heart cell cultures?

3. The paper mentions a large-scale genetic conversion leading to high homozygosity in single-nucleotide polymorphism genotypes. What are the potential implications of this genetic conversion on the behavior and stability of the cell line, particularly in terms of its use in vaccine production and biotechnological applications?

4. How was the FOH-SA cell line authenticated at the European Collection of Authenticated Cell Cultures? Were there any specific criteria or standards used to verify the identity and purity of the cell line, especially considering its potential for patenting and commercialization?

5. Beyond vaccine production, what other potential applications or research areas do you envision for the FOH-SA cell line? Are there any specific experiments or collaborations planned to further explore its capabilities and characteristics?

Conflicts of Interest

None declared.

Reference

1. Suleiman K, Aljulidan M, Hussein G, Alkhalaf H. Establishment of a novel fetal ovine heart cell line by spontaneous cell fusion: experimental study. *JMIRx Bio*. 2024. [doi: [10.2196/53721](https://doi.org/10.2196/53721)]
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Abbreviations

FOH-SA: fetal ovine heart–Saudi Arabia

Edited by G Eysenbach; this is a non-peer-reviewed article. Submitted 04.06.24; accepted 04.06.24; published 18.07.24.

Please cite as:

Mukherjee A

Peer Review of "Establishment of a Novel Fetal Ovine Heart Cell Line by Spontaneous Cell Fusion: Experimental Study"

JMIRx Bio 2024;2:e62905

URL: <https://bio.jmirx.org/2024/1/e62905>

doi: [10.2196/62905](https://doi.org/10.2196/62905)

PMID:

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