

TECHNOLOGY TRANSFER LICENSING OPPORTUNITIES



Fondazione IRCCS
Ca' Granda
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Regione
Lombardia

DENTAL PULP CRYOPRESERVATION

WO 2011/141789



Applications:

- Regenerative medicine.
- Teeth and mesenchymal cells banking.



Key benefits:

- Simple and unexpensive method for cryopreserving mesenchymal stem cells.
- Low risk of dental pulp and stem cells bacterial contamination.
- Cryopreserved dental tissue integrity, high recovery percentage.



Offer:

- Licensing out.
- Co-Development.



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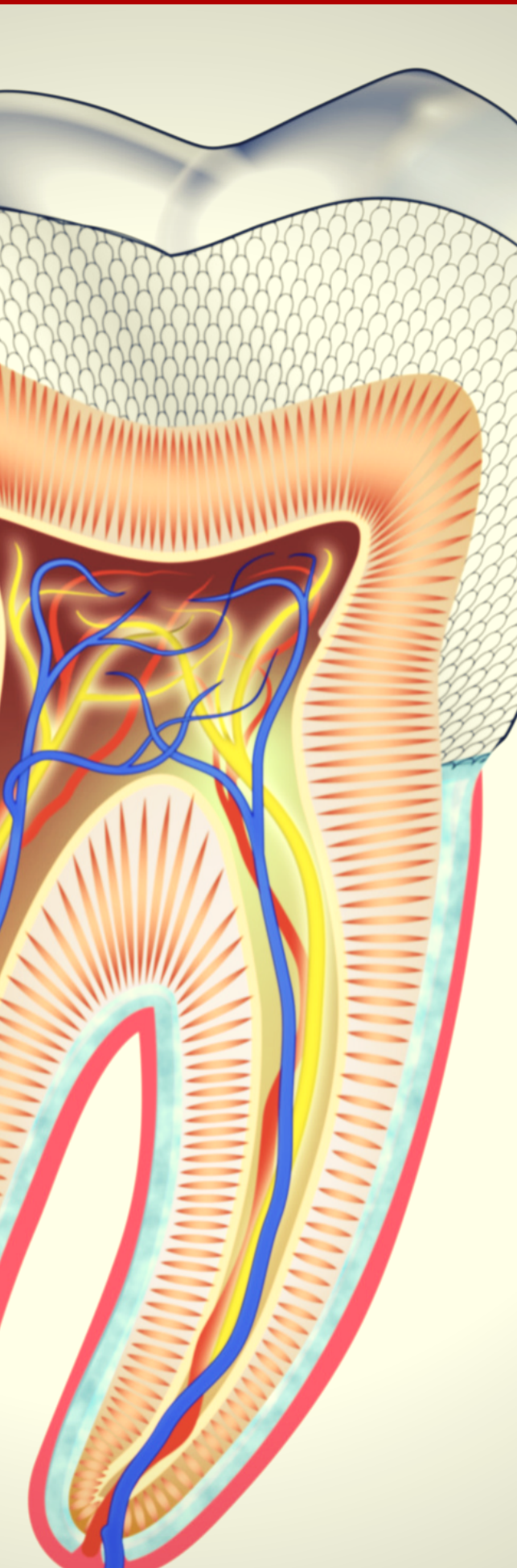


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DENTAL PULP CRYOPRESERVATION

INVENTION

Method for cryopreserving dental pulp in order to isolate mesenchymal stem cells.

BACKGROUND

Adult stem cells are an inexhaustible source of multipotent cells, which can differentiate into various cell lines. Thanks to these properties, adult stem cells can be used in regenerative medicine for various purposes. Dental pulp stem cells (DPSC) can give rise to different cells of mesenchymal origin, such as osteoblasts, adipocytes, chondrocytes and muscle cells. At present, DPSC applications are mainly focused on bone regeneration in dental/maxilla-facial and orthopedic surgery.

TECHNOLOGY

Current methods for preserving and banking dental pulp stem cells include steps in which DPSC are recovered from tooth, amplified and then stored in liquid nitrogen. This invention provides a simpler and unexpensive method for cryopreserving dental pulp stem cells.

The method ensures excellent results in terms of post-thawing recovery percentages and cells vitality scores, with particular consideration to their proliferative and differentiative capacity.

Tooth laser perforation removes selectively portions of dental enamel and dentine in order to access the root canal without overheating the dental pulp; this step contributes to ensure the integrity of the cryopreserved dental tissue, absence of bacterial contamination and high percentage of stem cells recovery.

INVENTORS

Gioventù Silvia, Frasca Stefania, Andriolo Gabriella, Lazzari Lorenza, Rebulli Paolo, Bonino Ferruccio, Montelattici Elisa.

INTELLECTUAL PROPERTY RIGHTS

- Patent granted in Europe, USA, Israel.

OFFER

- Licensing out & co-development.

CONTACT

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