2009 Research Days Abstract Form – Department of Ophthalmology – UNIFESP/EPM

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED):

Review the Scientific Section Descriptions. Select and enter the two-letter Code for the one (1) Section best suited to review your abstract.

3. PRESENTATION PREFERENCE (REQUIRED) Check one:
☐ Paper
X Poster
☐ FAST Paper

4. The signature of the First (Presenting) Author (REQUIRED) acting as the authorized agent for all authors, hereby certifies that any research reported was conducted in compliance with the Declaration of Helsinki and the 'UNIFESP Ethical Committee"

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Scientific Section Descriptions (two-letter code):

(BE) OCULAR BIOENGINEERING
(CO) CORNEA AND EXTERNAL DISEASE
(CA) CATARACT
(EF) ELECTROPHYSIOLOGY
(EP) EPIDEMIOLOGY
(EX) EXPERIMENTAL SURGERY
(GL) GLAUCOMA
(LA) LABORATORY
(LS) LACRIMAL SYSTEM
(LV) LOW VISION
(NO) NEURO-OPHTHALMOLOGY
(OR) ORBIT
(PL) OCULAR PLASTIC SURGERY
(PH) PHARMACOLOGY
(RE) RETINA AND VITREOUS
(RS) REFRACTIVE SURGERY
(RX) REFRACTION-CONTACT LENSES
(ST) STRABISMUS
(TR) TRAUMA
(TU) TUMORS AND PATHOLOGY
(UV) UVEITIS
(US) OCULAR ULTRASOUND

Deadline: Oct 16, 2009

FORMAT:
Abstract should contain:
Title
Author, Co-authors (maximum 6), Purpose, Methods, Results, Conclusion.

Poster guidelines:
ARVO Abstract Book (1.10 x 1.70m)

87. FIRST (PRESENTING) AUTHOR (REQUIRED):
Must be the author listed first in abstract body.

( ) R1 ( ) R2 ( ) R3 (X) PIBIC
( ) PG0 ( ) PG1 ( ) Fellow ( ) Technician

Last Name: Loureiro
First Name: Renata
Middle: Ruoco

Service (Sector): CO

CEP Number: 1637/08

5. ABSTRACT (REQUIRED):

Title: Comparison of different culture media for limbal epithelial cells cultivated ex-vivo

Author and Co-authors (maximum 6): Renata Ruoco Loureiro, Priscila Cardoso Cristovam, Caio Marques Martins, Joyce Luciana Covre, Rossen Hazarbassanov, José Álvaro Pereira Gomes
Purpose: Evaluate the effectiveness of different culture media on growth, proliferation, apoptosis and differentiation of limbal epithelial cells cultivated ex vivo.
Methods: Corneal rims from different donors had their posterior stroma removed and were cultured in three different culture media: SHEM, KSFM, Epilife. The epithelial cell cultures were submitted to analysis of growth and epithelial migration; immunocytochemistry for ABCG2, p63, Ki67, CK3 and VMT; RT-PCR; and cell viability test with Hoechst. All results were statistically compared.
Results: The epithelial cells cultivated in SHEM medium presented rapid and progressive growth, with a high positive percentage of cells expressing the epithelial cytokeratin CK3. The epithelial cells cultivated in KSFM showed epithelial and mesenchymal appearance and high positivity for ABCG2, p63, Ki67 and VMT. A similar pattern of antigen expression was noted with the epithelial cells cultivated in Epilife media. However, in the later media, the cells presented only an epithelial phenotype.
Conclusion: We conclude that Epilife and KSFM seem to be the best media for establishing limbal epithelial cell cultures. They contain low calcium concentration and keep the cells in a more undifferentiated status when compared to the cells cultured in SHEM medium.

Keywords: culture media, limbal epithelial cells, stem-cells