

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

2. SCIENTIFIC SECTION PREFERENCE (REQUIRED): GL

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
- 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 12, 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)

30. FIRST (PRESENTING) AUTHOR (REQUIRED):

Must be the author listed first in abstract body.

- ( ) R1      ( ) R2      ( ) R3      ( ) PIBIC
- ( ) PG0    (x) PG1    ( ) Fellow    ( ) Technician

Last Name: Gerente  
First Name: Vanessa  
Middle: Miroski

Service (Sector): Glaucoma

CEP Number: 1984/07

5. ABSTRACT (REQUIRED):

Title: Evaluation of the glaucomatous lesion on the central nervous system by functional magnetic resonance imaging (fMRI) and the correlation with psychophysics and anatomical retinal findings

Author and Co-authors (maximum 6): Vanessa M. Gerente, Ruth Schor, Dora Fix Ventura, Sérgio Teixeira, Cláudio Luiz Lottenberg, Edson Amaro Jr, Augusto Paranhos Jr.

Purpose: To evaluate the results of fMRI in patients with glaucoma and localized retinal nerve fiber layer defect and to evaluate anatomically the lateral geniculate body and calcarine cortex in advanced glaucoma.

Methods: Controls and patients with glaucoma performed standard automated perimetry, FDT, OCT, GDx VCC, HRT, retinography and fMRI. The stimuli of fMRI were presented in a rotating wedge and expanding ring reversing checkerboard to evaluate eccentricity and polar angle. Parvo and magno pattern stimuli were also presented. Visual cortex response to visual stimuli was observed by changes in blood flow and oxygenation, represented by the blood oxygen level dependent (BOLD) signal.

Results: Until now 23 individuals performed the exams, 15 with glaucoma and 8 controls. Data are in analysis at the moment of deadline.

Conclusion: Study in progress.

Keywords: glaucoma, functional magnetic resonance imaging