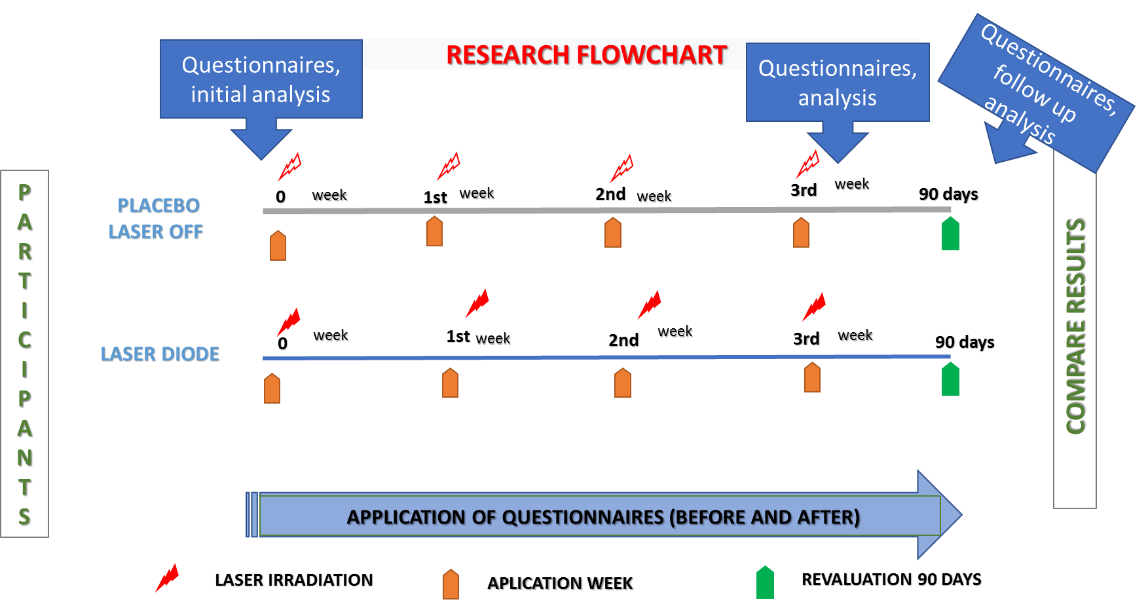
# RESEARCH PROTOCOL APPLICATION OF DIODE LASER IN WOMEN WITH GENITURINARY MENOPAUSE SYNDROME

Pereira SRS, Ferrari RAM, Bussadori SK, Deana AM.

Postmenopausal Genitourinary Syndrome (PGS) is caused by the physiological hypoestrogenism of the climacteric and results in several urinary, genital, and sexual alterations. Brazilian women live about a third of their life after menopause, where hormonal changes occur along with clinical manifestations, characterized by vaginal and vulvar dryness, burning, discomfort, vulvovaginal irritation, lack of lubrication, dyspareunia, dysuria, pollakiuria, and recurrent urinary infections. Fractionated photothermolysis and radiofrequency systems, alone or in combination were tested to improve PGS. The goal of this project is to evaluate the clinical response of patients with symptoms of genitourinary menopause syndrome after the application of photobiomodulation in the vagina and its introit. In this randomized, double-blind, placebo-controlled study protocol, 60 women, aged 50 years or older, with complaints of postmenopausal PGS, which will be randomized according in two groups (placebo control and treatment), as shown Figure 1. The treatment group (n=30) will receive four consecutive applications, using laser diode DMC (808 nm), 4J per point, 100mW of power, 510mW/cm², beam area of 0.2cm², 8 sites in the external vagina, for 40s in each site, once per week for 4 weeks. The Placebo Group (n=30) will be handled as treated, but with the laser turned off. The life quality will be analyzed by using a visual analog scale (VAS), female sexual functioning index (FSFI-6), urinary incontinence questionnaire (ICIQ-SF), Vaginal Health Index Score (VHI) and compared between groups. Also, the vaginal temperature will be measured using a thermal camera, the pressure of the pelvic floor force (vaginal dynamometer) and a 1-hour Pad Test performed to quantify the urinary loss. All data will be analyzed regarding its distribution and an appropriated inferential test will be applied. With this procedure, we intend to obtain an overall better life quality and diminished symptoms in women with PGS.



**Figure 1. Research Flowchart**

**** Biography**:**

**Silvia Regina dos Santos Pereira has a degree in Nursing from the Faculty of Nursing at Hospital I. A. Einstein (1999). Master in Nursing from the University of Guarulhosand Doctoral Student in Biophotonics from the Universidade Nove de Julho. She is currently a RT Nurse at the Specialty Outpatient Clinic of Vargem Grande Paulista. I have 12 years of experience in Teaching, 20 years in Nursing, with an emphasis on Public Health, mastery in Lectures for companies during the CIPA/SIPAT Week, Organization of health events (Symposiums, Work Shop), Institutional training for professionals of health in the area of ​​communicable diseases and Epidemiological Surveillance, Elaboration and execution of Vaccination Campaigns in public health, Rapid testing campaigns for Sexually Transmitted Infections, guidance of students in course completion papers.**

**CV:**[**http://lattes.cnpq.br/5672178784568446**](http://lattes.cnpq.br/5672178784568446) **email: s.regina.pereira@uol.com.br**