silfradent®

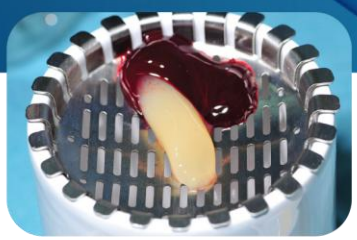
MEDIFUGE MF-200

Medical Centrifuge for Concentrated Growth Factors (CGF)

MEDIFUGE allows for the use of up to 8 test tubes for the creation of CGF (fibrin). A microprocessor control system allows for the maintaining of a constant speed and the exceptional rotor system with self-ventilation protects the blood sample from heat exposure. The rotor-holding compartment, the closing door and the test tube-holding jackets guarantee biological safety in terms of bio-containment in the event of test tube breakage. The MEDIFUGE is equipped with a decontamination cycle with UVC reflected light (cycle duration of 5 minutes at 1,000 revs) and the electronic control engine and its internal parts require no maintenance and its noise levels falls below the standards required and do not exceed 57 dBa.

WHY CHOOSE MEDIFUGE?

MEDIFUGE has a very unique variable speed program that automatically changes 4 times during 12 minutes centrifugation cycle. These changes of speed generate strong gravity pull and friction to allow higher concentration of growth factors and CD34+ cells in its fibrin than any other PRF centrifuges.



Four bony defects of 8 mm were formed, and 3.7*10 mm implants were placed at right femur. The PRF, CGF and control centrifuge membranes were grafted to the bony defect area. The total amount of new bone forming area was calculated according to the percentage of the total region between the threads. ELISA quantitative analysis and the microscopic analysis of the fibrinogen structure were performed.

TIME PERIOD	CONTROL CENTRIFUGE	PRF CENTRIFUGE	CGF CENTRIFUGE
2 WEEKS	11.17± 13.7	19.75 ± 18.6	38.00± 11.4
4 WEEKS	11.33± 13.9	21.00± 17.5	52.33± 19.7

Table 1. New bone formation area (NBFA) at 2 and 4 weeks after implant placement (Mean±SD%)

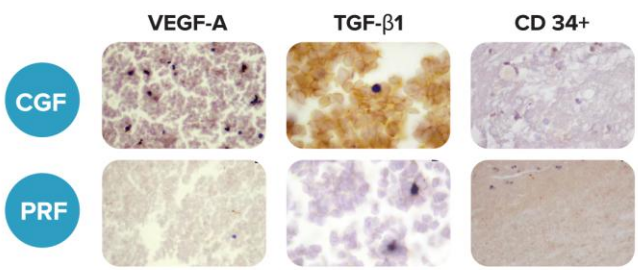
TIME PERIOD	CONTROL CENTRIFUGE	PRF CENTRIFUGE	CGF CENTRIFUGE
2 WEEKS	11.83± 14.2	22.75 ± 20.1	32.50 ± 14.7
4 WEEKS	12.50± 15.78	30.60± 30.7	53.33± 14.7

Table 2. Bone to implant contact (BIC) at 4 and 8 weeks after implant placement (Mean±SD%)

	PRF CENTRIFUGE	CGF CENTRIFUGE
VEGF (pg/mL)	38.28 ± 22.70	69.24 ± 47.00

Table 3. Quantity of released VEGF in PPP layer (Mean±SD)

- Histomorphometrical analysis (IOD) of VEGF-A and TGF-β1 showed a greater expression of this growth factor in the samples treated with MEDIFUGE compared with control centrifuge.
- The immunohistochemical analysis of cells CD34+ expressed in the Red-Buffy Coat Interface showed a number of CD34+ cells four time greater in the sample treated with MEDIFUGE compared with control centrifuge.



* A Comparative Study On The Early Bone Formation At The Adult Dogs Femur Peri-implant Defect Of CGF Graft And PRF Graft
Su-Gwan Kima, Hyun-Chun Parka, Sung-Chul Limb a Department of Oral and Maxillofacial Surgery, School of Dentistry, Chosun University, Gwangju, Republic of Korea

ROUND UP RU-200

Integrated Growth Factor Mixing Device

Medical device for intrinsic and extrinsic molecular blend, mixing with altering the geometric dimensions of autologous, heterologous or synthetic materials for medical and dental use. The system is used with liquid, semi-liquid or solid materials. It performs perfect, homogenous mixing, free from atmospheric contamination and automatic empty in just a few seconds (maximum 16 seconds). Also, it is equipped with a decontamination cycle with UVC reflected light of 5 minutes duration.

A.P.A.G.

Medical Heater for Activated Plasma Albumin Gel

The APAG is a special frequency pulse heating device designed to heat syringes containing biological material at a controlled temperature. The APAG is capable to fabricate LPCGF, APAG and ICF injectable Biostimulants for dental, cosmetic and orthopedic treatments. These stimulate the natural auto-healing induced starting from the wound bed with slow "Biphasic" release - prolonged by growth factors.

Skin Rejuvenation

Hair Regeneration

Orthopedic Injection

BIOSTIMULANT	DESCRIPTION	PURPOSE	REQUIRED LAYERS
LPCGF	Liquid Phase Concentrated Growth Factors	Mesotherapy, Orthopedic Injection, Hair Regeneration	PRP & CD34+
APAG	Activated Plasma Albumin Gel	Autologous Cosmetic Filling, Interproximal Black Triangle Removal for Dental Esthetic	PPP & CD34+
ICF	Induction Collagen Formation	Mesotherapy, Facial Rejuvenation	PRP & CD34+

TUBE LAYER DIAGRAM