

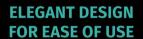
## **DRY EYE**TREATMENT





I.P.L. System Intense Pulsed Light

# c.stim





### **INTERFACE**

Large HD screen Easy to use Intuitive interface



#### DESIGN

Compact Elegant Robust





### HANDPIECE

Ergonomic shape Tip adapted to the facial area Precise treatment Easy to clean



#### TROLLEY

Ergonomic Multiple storage areas Mobile on castors

### ■ STATE-OF-THE-ART TECHNOLOGY WITH CLINICAL BENEFITS

### Safe and effective treatment with Stim-ULI™ technology

Our C.Stim<sup>™</sup> revolutionary IPL relying on our unique Stim-ULI<sup>™</sup> (Uniform Light Intensity) technique offers the best combination of clinical efficacy and patient comfort.

Standard technology





Stim-ULI™ technology



### Single handpiece with integrated water-based cooling system:

- · Improved patient comfort
- · Applies a thin layer of gel during treatment
- · Delivers the same energy level from first to last shot
- Optimal preservation of flash lamp life: 30,000 shots/3,750 sessions

### Regulated pulse train for safety and effectiveness

- Respects the skin's thermal relaxation time (TRT)
- No thermal damage to the skin
- · No inflammatory reaction
- Controlled energy accumulation for better results



### Safe and effective treatment for phototypes 1 to 5

- Light spectrum of 610 nm to 1,200 nm is less absorbed by melanin
- Energy controlled by pulse train, limiting increase in tissue temperature
- Stim-ULI™ technology for a perfectly homogeneous energy distribution



### ■ TREATMENT: A FAST, SIMPLE PROTOCOL

- **1 SESSION** in less than 10 minutes
- **2 WEEKS** between sessions
- **3 SESSIONS** for complete treatment
- 4 SHOTS per side

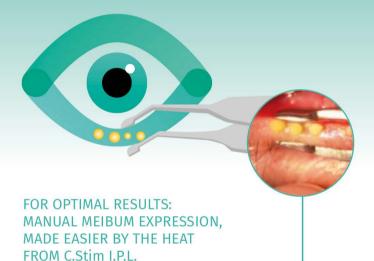
### **DURING**TREATMENT



PERI-ORBITAL AREA

### **AFTER**TREATMENT

( ) ( ) ( ) ( ) ( ) ( )



### ■ ADDED VALUE FOR CLINICAL PRACTICE

### **PRACTITIONER**

- · Multi-action treatment offer
- · Fast, simple treatment
- Combination treatments for long-term results
- Optimisation of post-surgical outcome when used before surgery (refractive, cataract)
- Improved patient compliance with topical glaucoma treatment
- Contact lenses can be worn for longer
- No consumables

### **PATIENT**

- Safe, effective, long-lasting treatment
- Better quality of life
- Comfortable treatment
- · No disruption to social life
- Reduction in symptoms from the first session
- Neuropathic pain relief
- Improved contact lens comfort
- Patient satisfaction after refractive and cataract surgery
- Improved tolerance of topical glaucoma treatments

### Dry eye treatment

TREAT
THE ROOT
CAUSES:



MULTIPLE MECHANISMS
OF ACTION WITH C.Stim
I.P.L. THERAPY:

M.G.D.
Meibomian Gland Dysfunction



**SPEED UP MEIBOMIAN GLAND AND LACRIMAL GLAND METABOLISM** by stimulating the parasympathetic nervous system [1,2,3,4,5,6]



**LIQUEFY MEIBUM FOR MEIBOMIAN GLAND EXPRESSION** using the heat generated by I.P.L. [7]

NFLAMMATION



STOP THE VICIOUS CYCLE OF CHRONIC INFLAMMATION by coagulating new blood vessels and reducing inflammatory agents [8,9,10,11]

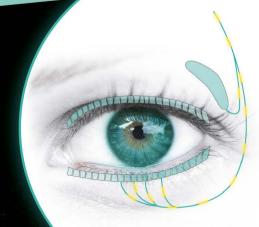
DEMODEX



**DECREASE DEMODEX** through coagulation and necrosis of the pigmented exoskeleton [9,12,13]



- Improved tear film quality [14,15,21]
- Better meibum quality and expression [16,17]
- Reduction in patient symptoms [17]
- Neuropathic pain relief [18]
- Reduced inflammatory markers (cytokines) in tears [19,20]







### TECHNICAL SPECIFICATIONS

#### **GENERAL INFORMATION**

I.P.L. (Intense Pulsed Light) Technology Wavelength 610 - 1.200 nm 1 to 14 J/cm<sup>2</sup> Fluence 18 x 45 mm Spot size

Stim-ULI™ technology Uniform Light Intensity

> Unique technology for a perfectly homogeneous energy distribution

(FR patent pending)

Dimensions 540 (H) x 320 (W) x 380 (D) mm

Weight

Filter 610 nm, anti-UVA, UVB and UVC filter

Cooling system Water Flash lamp

Xenon lamp 110/230 VAC, 50/60 Hz Power supply

Operating temperature 15 - 35 °C Treatment duration 3 to 4 sessions

Accessories Operator protective glasses, patient

protective goggles

CE medical, class IIb Marking

The company reserves the right to modify the technical specifications without prior warning. ©2021. Quantel Medical, C.Stim™ is a registered trademark of Quantel Medical. All rights reserved

#### RIBI IOGRAPHY

- Parasympathetic Innervation of the Meibomian Glands in Rats Mark S. LeDoux et al. Investigative Ophthalmology & Visual Science, October 2001, Vol. 42, No. 11.

  Characterization of the innervation of the meibomian glands in humans, rats and mice Bründl, M. et al. Annals of Anatomy (2021), Vol. 233.

  Neurotransmitter Influence on Human Meibomian Gland Epithelial Cells Wendy R. Kam and David A. Sullivan Investigative Ophthalmology & Visual Science, November 2011, Vol. 52, No. 12.

  The Dopaminergic Neuronal System Regulates the Inflammatory Status of Mouse Lacrimal Glands in Dry Eye Disease Ji, Yong Woo et al. Investigative Ophthalmology & Visual Science (2021), Vol. 62.

  TFOS DEWS II Pathophysiology Report Anthony J. Bron, et al. The Ocular Surface, 2017, p 441 to 515.

  The neurobiology of the meibomian glands Cox SM, Nichols JJ Ocular Surface, July 2014.

  Multiporter Stayle of Interpret Pales o

- Multicenter Study of Intense Pulsed Light Therapy for Patients with Refractory Meibomian Gland Dysfunction Reiko Arita, et al. Cornea Volume 37, Number 12, December 2018. Rosacea: Molecular Mechanisms and Management of a Chronic Cutaneous Inflammatory Condition Yu Ri Woo, et al. International Journal of Molecular Sciences, September 2016. Rosacea: Epidemiology, pathogenesis, and treatment Barbara M. Rainer et al. DERMATO-ENDOCRINOLOGY 2018, VOL. 9, NO. 1, e1361574 (10 pages).
- 10. Treatment of ocular rosacea Edward Wladis et al. Survey of Ophthalmology (2018), Vol. 63. 11. Improved telangiectasia and reduced recurrence rate of rosacea after treatment with 540 nm-wavelength intense pulsed light: A prospective randomized controlled trial with a 2-year follow-up – Luo, Y. et al. – Experimental and Therapeutic Medicine (2020), Vol. 19.
- 12. Therapeutic Effect of Intense Pulsed Light on Ocular Demodicosis Zhang, X., et al. Current Eye Research 2019, Vol. 3.
- 13. Intense Pulsed Light Therapy for Patients with Meibomian Gland Dysfunction and Ocular Demodex Infestation Cheng et al. Current Medical Sciences (2019), Vol. 39.
- 14. Long-term effects of intense pulsed light treatment on the ocular surface in patients with rosacea-associated meibomian gland dysfunction Seo Kyoung Yul et al. Contact Lens and Anterior
- 15. TFOS DEWS II Tear Film Report Willcox Mark et al. The Ocular Surface (2017), Vol. 15.
- 16. Intense Pulsed Light for the Treatment of Dry Eye Owing to Meibomian Gland Dysfunction Vigo, L. et al. Journal of Visualized Experiment (2019), N° 146.

  17. Meibum Expressibility Improvement as a Therapeutic Target of Intense Pulsed Light Treatment in Meibomian Gland Dysfunction and Its Association with Tear Inflammatory Cytokines Choi, M. et al. – Scientific Reports (2019), Vol. 9.
- 18. TFOS DEWS II Pain and Sensation Report Belmonte Carlos, et al. The Ocular Surface (2017), Vol. 15.
- 19. Analysis of Cytokine Levels in Tears and Clinical Correlations After Intense Pulsed Light Treating Meibomian Gland Dysfunction LIU, R et al. American Journal of Ophthalmology (2017).
  20. Effect of inflammation on lacrimal gland function Driss Zoukhri Experimental Eye Research, May 2006; 82(5): 885–898.
- 21. Aqueous deficiency is a contributor to evaporation-related dry eye disease Charles W. McMonnies Eye and Vision (2020) 7:6.

Patient information: www.mydryeyedisease.com

www.quantel-medical.com

#### Manufacturer

Quantel Medical 1 Rue du Bois Joli - CS40015 63808 Cournon d'Auvergne - FRANCE Tel.: +33 (0)4 73 745 745 Email: contact@quantelmedical.fr ISO 9001: 2015 - ISO 13485: 2016

#### Headquarters

Lumibird Medical 1 Rue du Bois Joli - CS40015 63808 Cournon d'Auvergne - FRANCE Tel.: +33 (0)4 73 745 745





QUANTEL MEDICAL - ELLEX - OPTOTEK MEDICAL