



# BioBridge Foundation

EVENT 2022

ASIA

SEPTEMBER  
27-28 . 2022

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PROGRAM  
'22

# BioBridge Foundation

CONRAD  
BANGKOK



## Join the Generation REGENeration

Meet clinicians from around the world bringing you the latest science and clinical practice in the field of regenerative medicine.

Conrad Hotel Bangkok, Thailand  
87/3 Wireless Road Phatumwan, Bangkok,



# BioBridge Foundation

Dal 2003, Regen Lab ha sviluppato Dispositivi Medici certificati che consentono la preparazione di PRP standardizzato partendo dal sangue del paziente in modo automatizzato ed efficiente. Il RegenPRP risultante ha una composizione costante e indipendente dall'operatore, con oltre l'80% delle piastrine recuperate nell'intero volume di plasma e un basso livello di contaminanti delle cellule del sangue. Le piastrine recuperate sono completamente funzionali e il rapporto piastrine/plasma è fisiologico, con un fattore di concentrazione delle piastrine compreso tra 1,5 e 3 volte il valore basale nel sangue. Tale PRP è rilevante per l'uso terapeutico, poiché a questa concentrazione fisiologica non influisce sull'omeostasi dei tessuti e il basso livello di contaminazione cellulare riduce il rischio di reazioni infiammatorie indesiderate. Con il RegenPRP di alta qualità non è necessario concentrare ulteriormente le piastrine.

C'è una convinzione errata, ovvero che il PRP dovrebbe sempre avere una concentrazione piastrinica di 1 milione di piastrine per microlitro, che corrisponde a un aumento di 4-5 volte rispetto al basale, per essere terapeutico. Questa concentrazione è stata menzionata per la prima volta nelle importanti pubblicazioni sul PRP del Prof. Robert Marx (Marx, 2004; Marx et al., 1998). Questo valore empirico non è mai stato validato scientificamente, né la sua superiorità rispetto ai PRP a concentrazione più bassa, preparati con tecnologie efficaci, è mai stata dimostrata in studi clinici comparativi. Questo livello di concentrazione piastrinica di solito si applica ai PRP altamente contaminati da globuli rossi e bianchi. Poiché questi contaminanti cellulari ritardano il processo di guarigione, è probabilmente necessaria una maggiore concentrazione di piastrine in questi tipi di PRP per compensare l'effetto negativo dei globuli rossi e bianchi.

Inoltre, il PRP fisiologico standardizzato dovrebbe sostituire i PRP più concentrati preparati con tecnologie arcaiche, poiché, nel 2020, le alte concentrazioni di piastrine nel PRP non sembrano più essere rilevanti per ottenere risultati clinici di successo. I numeri parlano da soli: a tutto il 2019, due milioni di pazienti sono stati trattati con successo con RegenPRP in varie aree terapeutiche. Quindi, non c'è dubbio che siamo in presenza di una terapia efficace.

I risultati clinici ottenuti in ambito muscoloscheletrico si basano sui dati del Rapporto di valutazione clinica per RegenKits, eseguito in conformità con i requisiti della linea guida della Commissione Europea MEDDEV 2.7/1 revisione 4. Questi risultati mostrano che RegenPRP a concentrazione fisiologica, povero di leucociti, è efficace non solo per il trattamento dell'osteoartrosi ma anche per tendinopatie e altri disturbi muscoloscheletrici.

Tuttavia l'efficacia clinica non è sufficiente.

La tecnologia dovrebbe anche essere sicura per il paziente e l'operatore. Il PRP preparato con dispositivi a circuito chiuso è stato certificato come la tecnica iniettabile più sicura per la Norma Europea EN 16844:2017+A2:2019 recentemente aggiornata. Il trattamento del sangue nei sistemi a circuito chiuso, come nei dispositivi Regen Lab, consente di ridurre al minimo i rischi di contaminazione microbica del campione e l'esposizione dell'operatore al sangue del paziente.

Quello che Regen Lab vuole offrire è la dimostrazione scientifica della sicurezza e dell'efficacia clinica del RegenPRP e della sua combinazione con Acido Ialuronico, e il grande valore incontestabile di un nuovo farmaco per medici e pazienti!

General Informations

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BioBridge APAC  
Generation REGENeration  
2<sup>nd</sup> Conference

| 27 – 28 September 2022  
Conrad Hotel Bangkok, Thailand – 87/3 Wireless  
Road Phatumwan, Bangkok, 10330, Thailand  
Contact: +66 2 690 999

The Conrad Hotel is set in the upscale district of Lumpini in the bustling city of Bangkok. Conrad Bankok opened its doors in 2003, the same year Mr Turzi committed to the development of a unique expertise for the design, the manufacture and the validation of high quality medical devices for the preparation of PRP. It is therefore not a coincidence that the Conrad Hotel Bangkok was chosen to host the 2nd Biobridge in the Asia Pacific Region.

We look forward to seeing you soon!



CONTACT

For questions and queries, please contact:

| Amber Liew [amber@bioesque.org](mailto:amber@bioesque.org)  
| Saw Moi [sawmoi@bioesque.org](mailto:sawmoi@bioesque.org)



# Conference Program

**27-28.09.2022**

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BioBridge APAC  
Generation REGENeration  
2<sup>nd</sup> Conference



## **Tuesday 27th of September**

17:00 – 18:00 – Badge Registration and Welcome Cocktail

18:00 – 20:30 – Scientific Sessions New York Room (Aesthetic Medicine  
and Uro-Gynecology) Beverly Hills Room (Orthopedics)

20:30 – Dinner

## **Wednesday 28th of September**

8:30 – 10:30 – Masterclass New York Room (Aesthetic Medicine)  
Beverly Hills Room Masterclass (Orthopedics)

10:30 – 12:00 – Scientific Sessions New York Room (Aesthetic Medicine)  
Beverly Hills Room (Orthopedics)

12:00 – Closing speech

# Scientific Sessions

## 27-28.09.2022



### Aesthetic Medicine

**Date:** Tuesday 27<sup>th</sup> of September

**Venue:** New York Room, Level 2

18:00 – 18:15

**Jean-Marie De Donato & Magalie Terry**, Regenlab  
Latest Update

**Moderator : Dr Wichai HONGCHARU (TH)**

### UROLOGY & GYNECOLOGY

18:15 – 18:45

**Dr Sebastien BELEY**, Urologist (FRA)PRP in Male  
Erectile Dysfunction and Peyronie's disease management

18:45 – 19:15

**Dr Malgorzata UCHMAN**, Gynecologist (PL)  
PRP in Vaginal Postpartum Scars

### SKIN REJUVENATION AND SKIN TREATMENT

19:15 – 19:45

**Dr Rungsima WANITPHAKDEEDECHA**, Dermatologic  
Surgeon (TH)  
Naso Labial Folds, PRP + AutologusThrombin Serum : a 3-month follow-up

### ALOPECIA

19:45 – 20:15

**Dr Danai THAMPIBAL**, Hair Transplant Surgeon (TH)  
PRP with hair transplant

20:15 – 20:30

Final Notes & Conclusion from All Speakers

8:30pm – 10:30pm

Group Photo Taking  
Dinner

### Aesthetic Medicine

**Date:** Wednesday 28<sup>th</sup> of September

**Venue:** New York Room, Level 2

**Moderator:** Dr Atchima SUWANCHINDA (TH)

### SKIN REJUVENATION AND SKIN TREATMENT

09:00– 09:30

**Dr Robin CHOK**, Cosmetic Surgeon (AU)  
The Innovating 3D tissue Biomatrix Rejuvenation  
with the combination of PRP and HA

09:30 – 10:00

**Dr Melissa LIAW**, Aesthetic Doctor (MY)  
Skin rejuvenation with Melasma, Case Study and  
Tear Trough Injecting, Case Study

10:00 – 10:30

**Dr Yulia SISKAWATI**, Dermatologist (ID)  
The potential role of platelet rich plasma in melasm

### Masterclass

10:00 – 10:45

**Dr Rassapoom SUMAETHEIWIT**, Dermatologist (TH)

10:45 – 11:30

**Dr Robin CHOK**, Cosmetic Surgeon (AU)

11:30 – 11:45

Final Notes & Conclusion from All Speakers

11:45

Group Photo Taking

12:00

Meeting Ends

### Musculoskeletal and Orthopaedics

**Date:** Tuesday 27<sup>th</sup> of September

**Venue:** Beverly Hills Room, Level 2

**Moderator : Dr Patrick GOH, (SG)**

### SPORTS MEDICINE & JOINT INFILTRATION

18:00 – 18:30

**Dr Iain DUNCAN**, Rheumatologist and Inter-  
ventional Radiologist (AU)  
“PRP Therapy”: our results using a systematic  
approach

### ONLINE

18:30 – 18:45

**Jean-Marie De Donato & Magalie Terry**, Regenlab  
Latest Update

18:45 – 19:15

**Dr Patrick GOH**, Sport Physician (SG)Thrombin  
Activated PRP in Musculoskeletal injuries  
– Building a Bridge, or a Bridge Too Far?

19:15 – 19:45

**Dr Wesley CHEN**, Interventional Pain  
Sonologist, (TW)  
Application of PRP in Elderly Spine: PREPOST  
& for difficult surgery cases

19:45 – 20:15

**Dr Jen Li PAN**, Pain Medicine Specialist (TW)  
PRP-based Pain Interventions: a brief conceptual  
review

### ONLINE

20:15 – 20:30

Final Notes & Conclusion from All Speakers

8:30pm – 10:30pm

Group Photo Taking  
Dinner

### Musculoskeletal and Orthopaedics

**Date:** Wednesday 28<sup>th</sup> of September

**Venue:** Beverly Hills Room, Level 2

**Moderator:** Dr Edgar EUFEMIO (PH)

### INNOVATIVE PROTOCOLS

09:00– 09:30

**Dr Edgar EUFEMIO**, Orthopaedic Sports Surgeon, (PH)  
“The SLUSH Protocol in the Treatment of Uni-com-  
partmental Osteoarthritis of the Knee”

### ORTHOPEDIC SURGERY

09:30 – 10:00

**Dr Briliantono SOENARWO**, Orthopedic Surgeon (ID)  
Combination of PRP-HA in OA + PRP for Plantar  
Fasciitis

10:00 – 10:30

**Prof. Carl CHEN**, Interventional PainSonologist (TW)  
How to minimize the PRP Preparation Process

### Masterclass

10:30 – 11:00

**Dr Patrick GOH**, Sport Physician (SG)

11:00 – 11:30

**A/Prof Denny Lie Tijauw Tjoen**,  
Sports Orthopaedic Surgeon (SG)  
Elbow &Shoulder

11:30 – 11:45

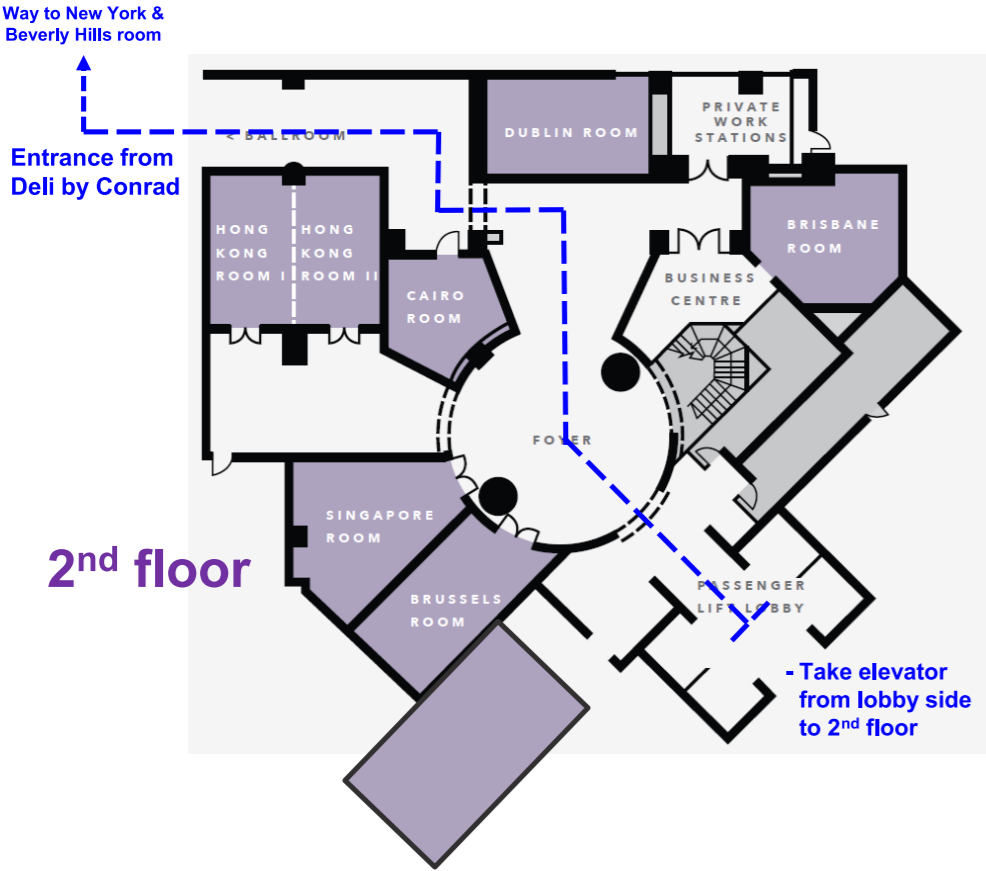
Final Notes & Conclusion from All Speakers

11:45 – Group Photo Taking

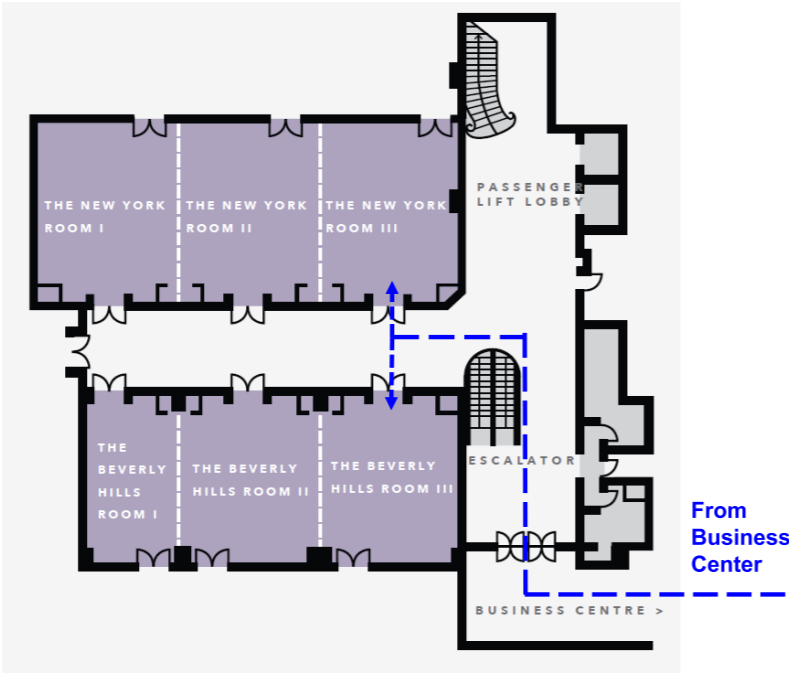
12:00 – Meeting Ends

Access Informations

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Lobby to  
New York & Beverly Hills



2<sup>nd</sup> floor



Dr Sebastien BELEY

Urologist  
(FRA)

Abstract

Erectile Dysfunction and Peyronie’s  
disease management

NOTES



## Dr Małgorzata UCHMAN

Gynecologist  
(PL)

Dr n. Med. Małgorzata Uchman – Musielak, gynecologist and obstetrician. She combines hospital practice with scientific work at the Medical University in Warsaw. He is a lecturer at the Warsaw Medical University. A scholarship holder at the University of Perugia. In 2010, she obtained the title of doctor in the field of gynecology and obstetrics. A graduate of the Postgraduate School of Aesthetic Medicine. She is a member of the Polish Gynecological Society, the Polish Society of Aesthetic and Reconstructive Gynecology and the Polish Society of Plastic Gynecology as well as the European Society of Aesthetic Gynecology. Precursor of a new surgical method of the vaginal vestibule using Vaginal Narrower. As one of the first, it also had the opportunity to test and introduce hyaluronic acid intended and the only one registered in the world for plastic gynecology. An international trainer and lecturer with modern procedures in plastic gynecology. Takes part in an international scientific project on research on hyaluronic acid used in plastic gynecology. Dr Małgorzata Uchman-Musielak, gynecologist – obstetrician, expert in the field of correcting aesthetic defects of intimate parts of the body in women. Dr Uchman-Musielak

is also the author of the first book in this field in the world entitled “Plastic Gynecology”, published in 2015 by the PZWL publishing house. This publication deals with the problems of normal anatomy of the reproductive organs of women, which currently affects over half of the population of women of all ages. The book is a response to the growing expectations of patients in gynecological surgeries, which more and more often report this type of ailments to their doctors. Patients are more and more often expecting from the gynecologist not only to solve the health problem, but also to improve the aesthetic defect of the intimate parts of the body. The author describes the current possibilities of effective treatment of diseases of the reproductive organs, while maintaining the principles of aesthetic.

### Abstract

#### Effectiveness of platelet-rich plasma treatment in perineal trauma

Perineal trauma is defined as damage that occurs spontaneously or is due to episiotomy in the genital area during vaginal birth. 60 – 85% of women will experience perineal trauma during vaginal birth. Perineal trauma is connected with long-term complications as dyspareunia, perineal pain, urinary and faecal incontinence, pelvic organ prolapse, sexual dysfunction, body image deterioration and postpartum depression. 90 percent of women report tremendous pain associated with both the perineal healing process and the episiotomy scar. It has a negative impact on the quality of life.

The use of PRP is a very good solution in the treatment of scars after birth injuries. An autologous serum containing high concentrations of platelets and growth factors reduces pain by increasing vascularization, normalizing pigmentation, and smoothing scar and tissue repair. The procedure includes 3 visits every 3 weeks during which, under local anesthesia, we perform scar incision and subsequent injection of PRP prepared in advance. Scar remodeling was observed, no pain reported by the patient, and pain-free return to intercourse. Scars after perinatal injuries in the area of the vagina and perineum and the associated pain are a very good indication for the successful use of PRP and achieving a very good therapeutic result.

## NOTES



## Prof. Dr. Rungsima WANITPHAKDEEDECHA

### Dermatologic Surgeon (TH)

Professor Dr. Rungsima Wanitphakdeedecha is a dermatologist and dermatologic surgeon in Bangkok, Thailand. She completed her dermatology residency in 2003 at Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, THAILAND. She has been serving as a faculty in Dermatosurgery Unit, Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University since then.

She completed her research fellowship training in Procedural Dermatology at the University of Texas-MD Anderson Cancer center, Houston, Texas, USA, and Laser and Cosmetic Surgery at Washington Institute of Dermatologic Laser Surgery, Washington DC, USA in 2007 and 2008, respectively.

She has lectured nationally and internationally on the topics of dermatologic surgery, laser, and cosmetic procedures. She has published many book chapters and manuscripts in peer-reviewed journals. Holds various patents in Injection technique

### Abstract

#### Naso Labial Folds, PRP + Autologus Thrombin Serum : a 3-month follow-up

A study to evaluate the efficacy and safety of platelet-rich plasma for the treatment of acne scars in Thailand  
Felix Paolo Lizarondo MD1, Surachet Sirisuthivoranunt MD MSc1, Thanya Techapichetvanich MD1, Sasima Eimpunth MD1, Woraphong Manuskiatti MD1, Rungsima Wanitphakdeedecha MD MA MSc1  
1Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand.

Background: Acne scars have a significant psychosocial burden to patients and while many treatment modalities exist, it remains a challenge to treat. Platelet-rich plasma (PRP) due to its numerous growth factors and proteins has been postulated to improve the appearance of acne scars.

Objective: The aim of this study was to evaluate the efficacy and safety of platelet-rich plasma for the treatment of acne scars.

Methods: A prospective study including 25 adult patients with atrophic acne scars on the face was conducted in a tertiary hospital in Thailand. Patients were given 2mL intradermal injections of Regenlab PRP on the cheek for 3 sessions given 4 weeks apart. The outcomes were assessed on every treatment session and followed up on 2 weeks, 1 month, 2 months, 3 months and 6 months after the last treatment. Outcomes measured included a quartile grading scale reported by dermatologists and patients, and skin texture quality by Antera 3D. Patient-reported pain scores and adverse events were also noted.

Results: Preliminary data at 3 month follow up has shown that all patients reported at least 26-50% improvement in their acne scars. Antera 3D skin texture analysis reported a significantly improved score from the baseline of  $11.69 \pm 3.55$  to  $10.14 \pm 3.24$  ( $p < 0.0001$ ). Pain scores were  $5.85 \pm 1.94$ ,  $5.81 \pm 2.01$  and  $5.70 \pm 1.88$  on the 1st, 2nd and 3rd treatments respectively. No other adverse events were noted thus far.

Conclusion: Preliminary data shows that PRP is an effective and safe treatment for acne scars. Completion of data collection will address if this is sustained up to 24 weeks.

## NOTES



## Dr. Robin CHOK

### Cosmetic Surgeon (AU)

Dr Robin Chok had extensive experience and training in Cardiothoracic, Plastic and Vascular surgery before settling on his passion, Cosmetic Surgery. He is a certified Cosmetic Surgeon currently working in his own private practice, with a surgical Fellowship from the Australasian College of Cosmetic Surgery.

Dr Robin Chok is at the forefront of his field, developing new techniques for corrective Botulinum Toxin and Filler treatments for facial or dental deformities and asymmetry. He is an upcoming expert in the field of PRP and Radio Frequency (RF) modality of Facial Rejuvenation. His interest in minimal invasive reconstruction of the face using PRP. Botulinum Toxin and Dermal Filler Gels sees him a guest speaker for the second time at the 2nd APAC Biobridge conference.

### Abstract

#### The Innovating 3D tissue Biomatrix Rejuvenation with the combination of PRP and HA

PRP is a perfect bio accelerator and cellular coordinator for repair. However PRP on its own can be limited in the amount of cellular biostructure created.

PRP in aesthetics has to have a power to regenerate and maintain tissue beyond the natural ability of repair by many times in order to generate a super structural effect of Rejuvenation.

Those who has been to a lecture by Dr Chok will remember his quote of “ PRP is a Healer, Sealer, Never a Filler” .

These are important principles that must be understood by any practitioner with an interest in PRP

Specific techniques in combining PRP with other bio-restructuring materials are being developed. The most cost efficient and well tolerated of these products to combine with PRP is Hyaluronic acid as a gel.

Hyaluronic acid (HA) is a perfect medium to cellular restructuring as it has very good water and cellular permeability allowing faster re-vascularisation of new tissues essential for any new growth.

PRP and HA was popularised by American DR Charles Runels as Vampire Facelift few years ago taking PRP to the world stage of Aesthetics. His technique involves specific areas where common HA fillers should be placed for aesthetic effect then layered with PRP.

The most important biostructure regeneration required for facial rejuvenation is creation of Tissue lift. Many techniques simply try to create lift by Volume which can be limiting.

Regenesi 3D BioMatrix Facelift developed by Dr Robin Chok of Regenesi Cosmetic Surgery in Adelaide is a combination of all of the above ideals. PRP and HA are applied to a much deeper fascial layer of the facial tissue to create Adhesion Lift which most desirable in any ageing face. This gives a feeling of tautness and skin tone that is tight and lifted.

PRP and HA in combination also regenerate volume and integrity of the fatty tissues hence creating a younger skin glow which is well known as a PRP glow effect.

Many PRP procedures claiming rejuvenation effect are very limited as they only address the most superficial layers of the skin. This is not long lasting hence the glow effect is only up to 120days at the most.

Regenlab already has a product that combines the power of PRP and HA in a single tube. New Zealand has the privilege to be amongst the first country in the world to see first hand the Hydrolift effect of the Biomatrix facelift performed in NZCAMS

few years ago. Since then the technique has been further enhanced for simplicity and comfort. With better strategic placement of the PRP HA gel, longer lasting effect has been achieved. A single treatment of the Biomatrix Facelift can last easily up to 9 months. Any booster treatment within that 9 months will boost it by another 12 months.

This is much more favourable to the traditional PRP only treatments that requires 3 treatments 1 month apart before it can last 6 months at most. A Single Biomatrix 3D Facelift

by Dr Chok cost less than 3 treatments of PRP in any guise as the PRP is truly synergistic with the HA for maximum aesthetic effect.

Further advanced technique using Regenlab Cellular Matrix kit for Cellular Bioremodelling of the Face and Body will be discussed and demonstrated. Advancement in understanding the synergistic properties of HydroLift Effects from HA and Cellular BioRegenerative properties of PRP have allowed better technical aspect in lift and rejuvenation for more areas of the face and body

## NOTES



MODERATOR

**Dr Rassapoom  
SUMAETHEIWIT,**

**Dermatologist  
(TH)**

- Board of Dermatology
- Medical Director and Consultant of Celebrity Clinic
- Speaker for Dermatologist, Plastic surgeon and aesthetic doctor about Botox, Filler and Laser in Thailand and Abroad
- Global Allergan Trainer, he is the only one in Thailand

**Education:**

- Faculty of Medicine, Prince of Songklanakarind University ( Honour) and the best extern of the year
- Board of Dermatology, Ramathibodi Hospital, Mahidol University
- Certificate in Cosmetic and Laser surgery, Greater Miami Skin Center, Mt. Sinai Medical center, Florida, U.S.A.
- Certificate in Leading Innovation in Aesthetic dermatology of Asia Pacific
- Certificate in Membership of American Board of Anti- aging Medicine

NOTES



## Dr Danai THAMPIBAL

### Hair Transplant Surgeon (TH)

Holds a Master of science in Anti-Aging NA regenerative Medicine from Bangkok he obtained his MD from Prince of Songkha University Thailand.

He is Certified member American Board in Anti-Aging Medicine (A4M)

And various other boards, Clinical Nutrition Wellness (CNW), American Naturopathic Certification Board (ANCB), Chelation Medical Association Thai (CMAT), Anti-Aging Exercise and Wellness Medicine, Mae Fah Luang University, Hair Transplant Program, Thai Global Health Center Bangkok, Asian Association of Hair Restoration Surgeons (AAHRS), The European Organization of Hair Restoration Professionals (FUE Europe)

Is a member of The European Organization of Hair Restoration Professionals (FUE Europe), The Asian Association of Hair Restoration Surgeons (AAHRS)and The World FUE Institute  
He has been at the BEQ clinic since 2013. He lectures at the Pavicon academy and holds workshop and speaks for the Lion Hair Implanter One-Step Hair Restoration System

### Abstract

#### PRP with hair transplant

Androgenetic alopecia (AGA), or pattern hair loss, is the most common form of nonscarring alopecia affecting both men and women. AGA is created through the extension of the telogen phase and the shortening of the anagen phase causing follicle miniaturization. Dysregulations due to alterations in micro-circulation and micro-inflammation are also characteristics of this hair loss condition. Platelet-rich plasma (PRP) contains concentrated platelets which can be used to treat hair loss by encouraging hair growth, cell survival, proliferation, and angiogenesis. PRP is also used in hair transplantation to achieved a greater follicular unit yield.

## NOTES



## Dr Melissa LIAW

Aesthetic Doctor  
(MY)

Dr Melissa Liaw is the Founder & Medical Director of Eden Clinic, a multiple award-winning aesthetic medical centre in Kuala Lumpur. She holds the Letter of Credentialing and Privileging for Aesthetic Medicine granted by Ministry of Health, Malaysia. She graduated from University Putra Malaysia and was awarded Dean’s List for her professional exam. She then continued her passion in aesthetic medicine and obtained her Diploma in Aesthetic Medicine from the American Academy of Aesthetic Medicine.

With a special interest in skin rejuvenation, Dr Melissa combines a wide range of aesthetic modalities to achieve high satisfaction levels for each of her patients.

### Abstract

**Skin rejuvenation with Melasma, Case Study and Tear Trough Injecting – Case Study**

First Case study

Objective: To demonstrate how BCT/ATS combination can be a better alternative to dermal fillers in some rejuvenation of the face.

38 y/o male patient, presenting with signs of periorbital aging; tear trough hollowness, dark circles & fine lines treated with BCT/ATS

Second Case Study

Objective: To show overall skin rejuvenation with CM & how it can be a good alternative/combination with laser for treatment of melasma.

69 y/o female patient, presenting with overall signs of ageing in the face, neck & hands; wrinkles, fine lines & melasma treated with cellular matrix

## NOTES

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## Dr Yulia SISKAWATI

Sp. KK, FINS DV, Dermatologist  
(ID)

Graduated medical school from Udayana University in 2007 and received a post graduate degree from the University of Indonesia in 2013.

Recent:

- Dermatovenerologist in Lumi Clinic Bali and Zap Clinic Bali, Indonesia
- Member of Indonesian Dermatovenereologist Association
- Member of European Academy of Dermatovenereology
- Member of American Academy of Dermatology
- Member of American Society of Laser Medicine and Surgery
- Member of American Society for Dermatologic Surgery
- Member of International Dermoscopy Society

### Abstract

#### The potential role of platelet rich plasma in melasma

##### Introduction

The pathogenesis of melasma has only recently been developed, this is not dealing with the pigmentation only, but also involving several pathways. Various topical and oral therapies, chemical peeling, and energy-based devices had been used and successfully treat melasma. Melasma is chronic problem. Eventhough the pigmentation had been succedfully treated, the chance of recurrence of the disease is high, especially when the patient had risk factors for melasma. Platelet rich plasma (PRP) has recently been used to treat melasma. The curative effect of PRP is not only targeting the pigment metabolism, but also in multiple tissue repair and anti-inflammatory function.

##### Materials & Methods

Case reports of 7 cases of melasma in Asian Skin (Fitzpatrick skin type IV-V) which were treated with intradermal PRP injection and in combination with topical retinoic acid, depigmenting agent, and sunscreen with minimum SPF 30. The PRP was prepared as per instructions for the use from 10 ml of whole blood. Injector machine were used to inject the PRP into the skin with 1.4-1.8 mm depth. After 1-3 treatment session/s, the pigmentation was evaluated using modified MASI score and side effects were also recorded. All the patient were asked to performed self-evaluation.

##### Results

All 7 patients reported improvement of the pigmentation in melasma lesion based on the modified MASI score. All patients were very pleased with the result. No side effects were reported.

##### Conclusions:

Combining PRP with other modalities helps improve scar remodeling and accelerates skin healing in atrophic acne scars, traumatic scars, keloid, and problematic surgical scars.

#### PRP in scar remodelling and accelerated healing

##### Introduction

Scars are part of the natural healing process, left after a wound or injury has healed. A vast array of scar treatment modalities has been giving promising results. Platelet-rich plasma (PRP) is one of the scar remodelling therapies. It is an autologous blood-derived product with an increased concentration of platelet suspended in plasma. Growth factors in the PRP modulate cell proliferation, differentiation, angiogenesis, and chemotaxis.

##### Materials & Methods

Case reports of scar remodelling using PRP in atrophic acne scars, traumatic scar, keloid, and problematic surgical scars.

The PRP was prepared per instructions by using 10 ml of whole blood. PRP was applied with various applications, including topical application, intradermal injection, or injection using a cannula. Before and after pictures were taken for evaluation.

##### Results

The skin surface was improved in almost all cases of atrophic acne scar and traumatic scar. In keloid, PRP reduces itching and slows the development of the keloid. In problematic surgical scars, PRP helps reduce inflammation.

##### Conclusions:

Combining PRP with other modalities helps improve scar remodelling and accelerates skin healing in atrophic acne scars, traumatic scars, keloid, and problematic surgical scars.

## NOTES



Dr Iain DUNCAN

Rheumatologist &  
Interventional Radiologist  
(AU)

Dr. Iain is a founder of Garran Medical Imaging (GMI) and has been a leader in Canberra ultrasound and nuclear medicine for more than 20 years. His passion to improve patient outcomes through proactive response to clinical problems and direct relationships with clinicians led to the creation of Garran Medical Imaging. He manages to introduce new technology, provide clinical care, and participate in academic advancement while running a dynamic private practice –a rare find in the medical panoply.

Dr. Iain Duncan has his own website which showcases educational material and recent updates for clinicians, patients, and fellow healthcare professionals. For his latest news go as the rest of this bio is only for nerds, bots, and those with plenty of time.

Originally a graduate of Sydney University, he completed a decade of postgraduate medical training in Sydney, Canberra, and Adelaide. Working as a Rheumatologist for the next 10 years, he became a familiar face in private and hospital practice across Canberra. Moving into diagnostic imaging, he is an accredited Australasian Society of Ultrasound Sonologist and a Fellow of the Australian Association of Nuclear Medicine Specialists, he pioneered the use of musculoskeletal ultrasound for both diagnosis and guided injection therapy and has performed over 50,000 therapeutic injections.

He particularly champions the use of diagnostic imaging as an integral part of patient care rather than a stand-alone “test” or “scan.”

Abstract

**Our PRP experience: Results using a systematic approach to patient selection and image guided therapy**

Dr Duncan will review the evidence regarding patients who are most likely to benefit from PRP and PRP/HA therapy versus other injection therapies. Dr Duncan will discuss selection and workup of patients for PRP therapy and describe his image guided approach to administering these therapies. The clinical outcomes from such an approach will be presented, including a follow up of 267 patients and several cases studies. The talk will conclude with key clinical and injection recommendations.



Dr Patrick GOH

MBBS (S’pore), MSS, FAMS(Sports  
Medicine), PBM  
Specialist Sports Physician,  
Sports Medicine International, SINGAPORE

Dr. Goh, an accredited sports medicine specialist and full-time clinician, chairs the Sports Medicine Section of the Academy of Medicine (Singapore) and is a member of the Ministry of Health’s Sports Medicine Subspecialty Training Committee.

He pioneered the use of point-of-care MSK ultrasound and ESWT in Singapore 25 years ago, and PRP for sports and musculoskeletal injuries 15 years ago. His expertise and experience in these areas have led to numerous speaking invitations and hands-on workshops around the world.

Abstract

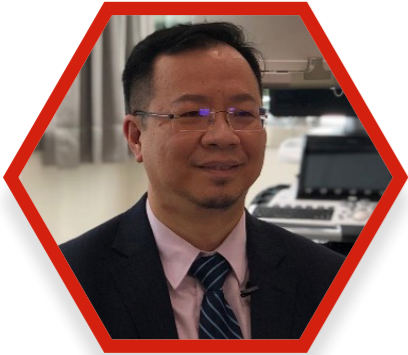
Thrombin Activated PRP in Musculoskeletal injuries –  
Building a Bridge, or a Bridge Too Far?

The addition of thrombin to PRP results in rapid activation of PRP and the rapid formation of a platelet-rich fibrin clot.

However, critics of thrombin activation are quick to point out that the “dump truck” nature of the ensuing platelet growth factor release is both unnatural and non-physiological, and therefore could be sub-optimal towards “natural” soft tissue healing.

Nevertheless, the very nature of a platelet rich fibrin clot, if accurately emplaced within a targeted tissue through ultrasound guidance, could prove advantageous in selected circumstances. For example, such a clot could possibly be used to bridge a gap in acutely or chronically torn soft tissues, whereas PRP in its liquid form is unable to do so. The sticky nature of the clot may act as a glue or filler, while the platelets, held in position by a fibrin network may provide a focal point for healing within an otherwise vacant, acellular or degenerative zone. This provides the tantalizing possibility of using a PRP intervention to move beyond its usual role of biological stimulation, into a limited form of structural intervention for certain musculoskeletal injuries.

This lecture summarises our four-year experience with the primary and adjunctive use of autologous thrombin activated PRP in treating musculoskeletal injuries. The basis of selection of suitable patients, the techniques used, and results in several case studies will be presented.



Dr Wesley CHEN

Interventional Pain Sonologist  
(TW)

- CURRENT POSITIONS**
- Superintendent, Purple Sun PM&R, Pain and Regeneration Medical System
  - Chairman, International Medical Education Society (IMES)
  - Chair, Taiwan National Pain Clinic Network, Taiwan Pain Society

Abstract

**Application of PRP in Elderly Spine: PRE POST & for difficult surgery cases**

For degenerative spine conditions, image-guided spine pain intervention along with regenerative injections is a good alternative method besides traditional physical therapy and before surgical procedure. For difficult surgical decision-making cases, or fail-surgery syndrome cases, thorough image studies by MRI, X-ray and MSK ultrasound, along with PRP regenerative injections can be a good choice to solve some difficulties which could not be treated before. With more than 10 years’ experience at Purple Sun Spine team may provide some ideas to a new way of intervention thinking.



## Prof. Carl CHEN

**Interventional Pain Sonologist  
(TW)**

### CURRENT POSITIONS

- Professor, Chang Gung Memorial Hospital, University & Ministry of Education
- Director of Department of Physical Medicine and Rehabilitation, Chang Gung Memorial Hospital, Taiwan
- Supervisor of Taiwan Academy of Physical Medicine and Rehabilitation.
- Director of Taiwan Neuromusculoskeletal Ultrasound Society (TNMSKUS)
- Chairman of Research Committee, Asia-Oceania Society of Physical and Rehabilitation Medicine

### Abstract

#### How to minimize the PRP Preparation Process

The texture of the autologous platelet-rich plasma (PRP) that is used in treating degenerative joint diseases such as knee osteoarthritis (OA) is usually in liquid form. However, the turnover rate of protein metabolism in the knee synovial fluid (SF) is less than one hour. Therefore, we have conducted a study to examine the feasibility of the thermal oscillation technique in converting the liquid-form PRP into an injectable viscous paste-like PRP that may delay the degradation of PRP and continuously release growth factors in the knee joint for a longer period of time. The RegenPRP (RegenLab, Le Mont-sur-Lausanne, Switzerland) test tube chamber was used for PRP generation. Approximately 5 mL of PRP supernatant (the liquid-form end product) was aspirated and sent for thermal oscillation treatment. Five temperatures were tested: 55, 65, 75, 85, and 95 degrees Celsius. Oscillation was set at 200 revolutions per minute (rpm) for 15 minutes. The enzyme-linked immunosorbent assay (ELISA) was applied in measuring the concentration of platelet-derived growth factor (PDGF) in picogram/milliliter (pg/mL). Under 75 degrees Celsius of heating, the resultant paste-like PRP end product had the highest concentration of PDGF in picograms per milliliter (pg/mL) as compared with other heating conditions ( $p < 0.05$ ). The paste-like PRP end product was able to release PDGF continuously for about 14 days, with the highest concentration achieved on the 8th day with an average of  $35646 \pm 2499$  pg/mL. In conclusion, liquid-form PRP can be converted to paste-like PRP end product with a viscosity similar to that of a toothpaste by using the thermal oscillation technique. The findings we have discovered in this study suggested that paste-like PRP may be a viable option in treating degenerative knee joint diseases.

## NOTES



## Dr Edgar EUFEMIO

**Orthopaedic Sports Surgeon  
(PH)**

He is the Chairman of the Cardinal Santos Medical Center Sports Medicine Institute.

He is the Medical Director of the Peak Form Sports Recovery Center and ReGEN+ and the Head of the Ortho-Rehab-Rheuma Division of the MegaClinic.

He served as the President of both the Philippine Orthopedic Society for Sports Medicine and the ASEAN Society for Sports Medicine and Arthroscopy.

In 2016, he was the Philippine Medical Association's Awardee for Contribution to Modern Medicine. That year, he was also given the Philippine Orthopedic Association Outstanding Achievement Award and the Xavier Alumni Excellence Award.

### Abstract

#### **"The SLUSH Protocol in the Treatment of Uni-compartmental Osteoarthritis of the Knee"**

One of the most common conditions seen in an Orthopedic Surgeon's clinic is degenerative osteoarthritis (OA) of the knee. Of these, a large majority will have the joint destruction predominantly or exclusively in the medial or lateral compartment.

For uni-compartmental degenerative OA of the knee, historically, there are seven treatment options:

- 1) Medications and a home physical therapy program
- 2) Medications and a formal physical therapy program
- 3) Steroid injections
- 4) Hyaluronic Acid (HA) injections
- 5) Platelet-Rich Plasma (PRP) injections
- 6) Arthroscopic debridement and partial menisectomy
- 7) Total joint replacement

By the time a patient presents in the clinic, the condition is usually chronic and the patient will have tried a myriad of remedies including painkillers, liniments, massages, acupuncture and exercises. And if a deformity is already present, realistically simple exercises will not work.

Over the past ten years, physical therapy modalities have improved by leaps and bounds. There are now machines that rely on different energies – acoustic waves, radiofrequency current, high intensity laser, electromagnetic fields and cryotherapy – to address pain, inflammation, decreased range of motion and soft tissue mobilization and strengthening.

Cortisone injections provide only a temporary respite and can actually cause harm if done too often.

HA and PRP injections are popular alternatives among physicians and patients because they can afford symptomatic relief as well as "hope for cure".

All current literature shows that arthroscopy for degenerative OA is just as effective as physical therapy, and is no longer advised.

A joint replacement is still the most effective choice in terms of providing the best quality of life but is also the most risky and expensive. Post-operative morbidities and mortalities are also higher.

So, from the initial seven possibilities, we have eliminated Options 1, 3 and 6.

For patients who do not respond to formal physical therapy, we propose the SLUSH Protocol as a better course of action to just HA or PRP injections while attempting to avoid a more invasive and aggressive procedure.

The SLUSH Protocol is composed of four parts:  
1) Stem cell therapy – PRP  
2) Lubricants – HA  
3) Unloader braces  
4) Shoe inserts

These will be discussed in detail in the presentation.

Results are promising and a formal report will be released in the near future.

### NOTES

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Dr Jen Li PAN

Pain Medicine Specialist  
(TW)

CURRENT POSITIONS

- 1. Medical Director, PAN Regenerative Pain Clinic, Taipei, Taiwan
- 2. Executive Director, Taiwan Pain Society
- 3. Attending Physician, Department of Physical Medicine and Rehabilitation, Taipei Medical University Hospital

Abstract

PRP-based Pain Interventions: a brief conceptual review

The applications of PRP in pain and musculoskeletal medicine have been widely adopted as one of the standard interventional approaches. However, despite its powerful tropic/immunomodulatory potentials, the successful rate of PRP treatment remains suboptimal. One of major reasons is that the precision of PRP intervention were not completely achieved.

These precision issues may include: 1. precision target tissue recognition 2. precision PRP regimen 3. precision PRP delivery under guidance 4. precision coupling strategies with other interventional modalities, such as dry needling, percutaneous needle tenotomy(PNT), hydorelease/hydro dissection, to name a few.

Once these “precision gaps” are fully recognized and well filled up by the endeavors of PRP interventionists, the successful rate will definitively rise to a brand new horizon.

NOTES



## A/Prof Denny Lie Tijauw Tjoen

Sports Orthopaedic Surgeon  
(SG)  
Elbow & Shoulder

### Abstract

PRP-based Pain Interventions: a brief conceptual review

#### CURRENT POSITIONS

Adjunct Associate Professor, School of Mechanical and Aerospace Engineering, Nanyang Technological University, since Sept 2006.

Co-Director and Visiting Associate Professor, MSc course in Biomedical Engineering, Nanyang Technological University, since 2005

Clinical Lecturer in Faculty of Medicine, National University of Singapore, 2006

Visiting Consultant, Military Medicine Institute, since 2005

National ATLS Instructor since 2006

### NOTES

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Dr Briliantono SOENARWO

SpOT. MD.PhD. MBA, FICS  
Orthopedic Surgeon  
(ID)

Graduated from the University of Indonesia 1981 and received a post graduate degree from Kanazawa Medical University Hospital in Japan 1991.  
Recent:  
Chairman of RSKB (Rumah Sakit Khusus Bedah) Halimun Jakarta, Indonesia  
Member of Indonesian Orthopaedic Asossiation.  
Member of Indonesian Hip & Knee Society (IHKS)  
Member of ISAKOS  
Member of ICRS

Abstract

**INTRARTICULAR INJECTION of BCT-HA compared to BCT-T in Patient with knee Osteoarthritis: A Meta analysis report.**

We conducted a meta-analysis to examine up-to-date evidence from randomized controlled to determine the efficacy and safety of intra-articular (IA) injection of BCT-HA, compared to BCT-T groups, in patients with knee osteoarthritis (OA).

IA injection of BCT-HA in knee OA patients was safe as no serious adverse events were found and there was no significant difference in the incidence of injection site pain, one of the most common adverse events, between the BCT-HA and BCT-T groups.

BCT-HA was found to be superior to BCT-T in pain relief and function improvement in patients with knee OA for the short term (up to one year post treatment). All the efficacy outcomes favored IA injection of BCT-HA over BCT-T for the treatment of the knee OA with a moderate quality of evidence except KOOS symptom. KOOS active daily living, and KOOS quality of life which were rate as low quality of evidence.

The outcome and short-term efficacy outcomes, including pain on a normalized scale, WOMAC total, KOOS quality of life and IKDC followed up from 4-6 weeks to one year post treatment, were quantitatively synthesized.

