

**18-19**

**MAY 2022**

**VIRTUAL EVENT**

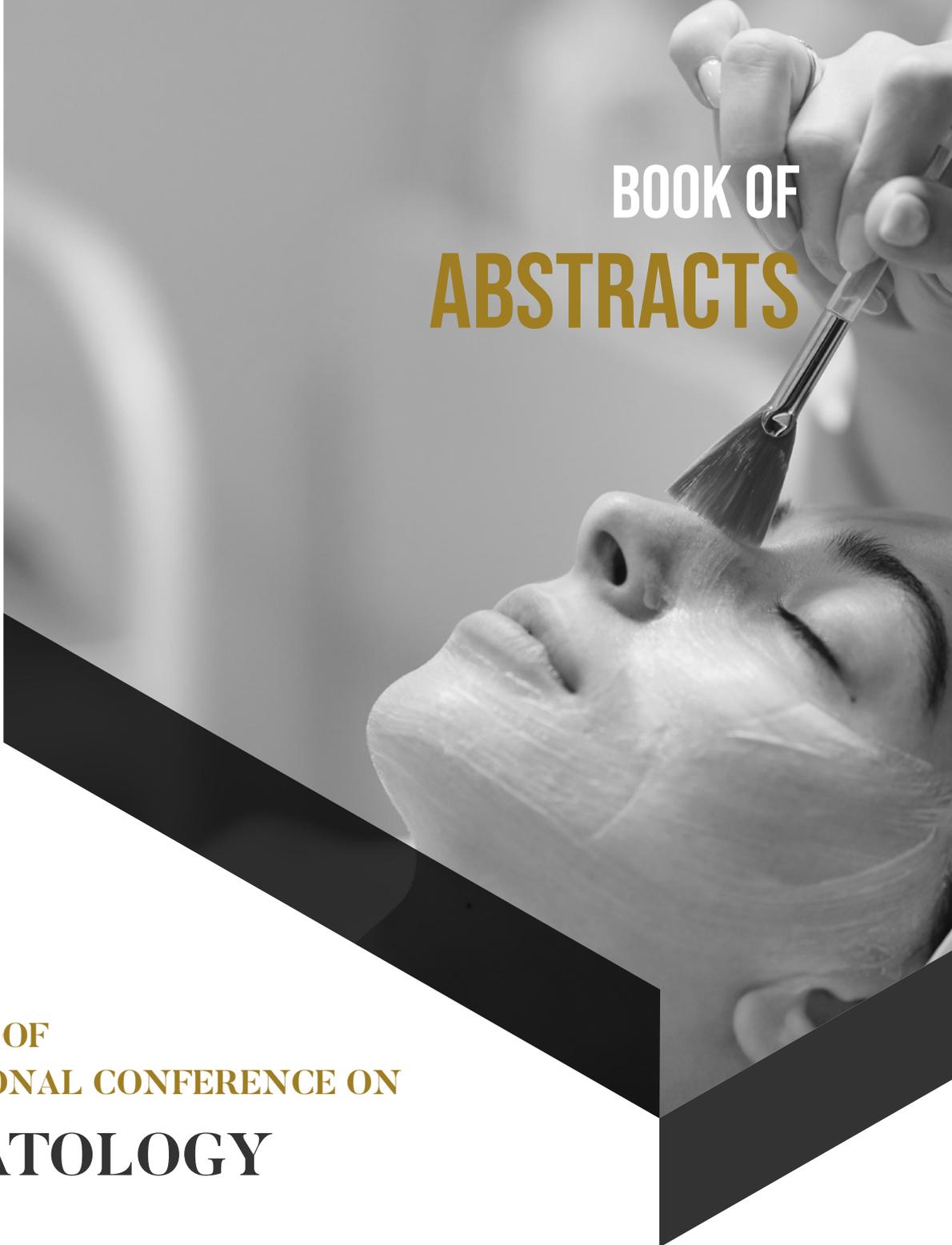
*3<sup>rd</sup> Edition of*  
*International Conference on*  
**DERMATOLOGY**  
**AND COSMETOLOGY**

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**BOOK OF  
ABSTRACTS**

**3<sup>RD</sup> EDITION OF  
INTERNATIONAL CONFERENCE ON**

**DERMATOLOGY  
AND  
COSMETOLOGY**

**18-19** **MAY**

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## ABOUT MAGNUS GROUP

**Magnus Group (MG)** is initiated to meet a need and to pursue collective goals of the scientific community specifically focusing in the field of Sciences, Engineering and technology to endorse exchanging of the ideas & knowledge which facilitate the collaboration between the scientists, academicians and researchers of same field or interdisciplinary research. Magnus group is proficient in organizing conferences, meetings, seminars and workshops with the ingenious and peerless speakers throughout the world providing you and your organization with broad range of networking opportunities to globalize your research and create your own identity. Our conference and workshops can be well titled as ‘ocean of knowledge’ where you can sail your boat and pick the pearls, leading the way for innovative research and strategies empowering the strength by overwhelming the complications associated with in the respective fields.

Participation from 90 different countries and 1090 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees’ managing different conferences throughout the world, without compromising service and quality.



## ABOUT IDC-2022

**IDC-2022**, welcomes members from different parts of the world to join “3rd edition of International conference on Dermatology and Cosmetology” scheduled virtually during May 18-19, 2022. Following the success of our previous two editions of this conference, IDC 2022 continues to foster progress in the field of dermatology and cosmetology under its theme “SKIN: Shape the future through sharing Knowledge, Innovations and Neoteric advancements in dermatology and cosmetology. This well-established convention unites attendees from all around the world who are interested in sharing, exchanging, and exploring new areas of Dermatology and Cosmetology research and advancements. Plenary speakers, well-known Keynote speakers, active Invited speakers, and fresh contributed speakers will share their plethora of knowledge at the consortium. Furthermore, the variety of oral and poster presentations along with workshops will keep attendees abreast of the newest updates in the field.



# KEYNOTE FORUM

## DAY 01

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**18-19** MAY



## Corinne Dechelette<sup>1\*</sup>, Paul young<sup>2</sup>

<sup>1</sup>PEAOrigami independent artist, Rabastens, France

<sup>2</sup>Dermatologist, Rouen, France

### An educational - Artistic exhibition on the skin and the main Dermatoses : PEAOrigami ® or SKINorigami

**N**o other organ in the human body has as many functions as the skin: biological, cultural, social and psychological. The skin is a sensory organ, of touch and expression. The skin is the first thing we notice and the basis on which we draw conclusions about a person. It provides information about our state of health, our moods, our age and sometimes our cultural background.

The skin is a multi-layered structure, a cutaneous paper which covers our body, a carnal envelope which maintains our physical and psychological integrity. The face represents the essence of the self. The SKIN is “the paper of the self.”

ORIGAMI - *from oru, “to fold”, and kami, “paper”* - is the art of paper folding. This technique probably dates from the Edo period in Japan (1608–1868). SKIN and ORIGAMI, beyond the word play around paper, are similar in several respects: the polygonal network, the basic folds, pleat folding, the polygonal shapes and a common history around a symbol. Hence, the idea of producing artwork connecting the skin with the art of origami to pay an artistic tribute to the organ that is the skin.

Our artistic and cultural endeavor has an educational purpose; it seeks to communicate knowledge of the physiology of the skin to different audiences by using and disseminating the technique of origami. This exhibition is directed at two audiences:

- To an audience of initiates, dermatologists and scientists specialized in skin biology who will be able to recognize the basic facts of skin physiology reinterpreted by origami
- To the general public, from 3 to 99 years old, so that they can discover the unsuspected complexity of the skin.

We firstly took photographs of different skins, with different magnifications, which were developed on different-sized squares of paper in order to make folded structures in accordance with a selection of origami models. With skin physiology being reinterpreted through origami in this way, we logically called this educational-artistic exhibition “PEAOrigami®” associating the French word “*peau*” (skin) and “*origami*” with its translation in Japanese “skin Paper”

After PEAOrigami® dedicated to the physiology of the skin, I continued my creative work on skin with the artistic reinterpretation of the main dermatoses within the framework of the PEAOrigami® [DERMATOGAMI] exhibition. This exhibition is created from photos of skin affected by the main dermatoses and is based on the etymology of the dermatosis presented. The Greek or Latin origin of the Dermatitis is translated visually via a Japanese paper-folding. So, “acne” from the Greek *ακμή* (*akmē*), which means “tip”, “summit”, will be reinterpreted via a pointed origami structure produced from photos of the skin of acne sufferers. PEAOrigami® exhibitions have been presented at the ESDR\* 2019 and EADV\*\* 2019 Congresses and this educational-artistic concept dedicated to skin has been published in international peer reviews. Next step is now to be used in private dermatology practice as no efforts can be spared in conveying the message about the prevention of the dangers of the sun on the skin and, in particular, methods that instinctively produce emotions and feelings of danger through the limbic system. Scientific driven Art such as PEAOrigami® ® can produce this type of conscious and subconscious emotions, especially when the vision of the artist is combined with that of the dermatologist.

\* ESDR : European Society of Dermatological Research \*\*EADV : European Academy of Dermato-Venereology

**Audience Take Away:**

- Opening of the mind around the skin organ through an original artistic view.
- Showing a new way to educate patients about skin and skincare in private practice.
- Demonstrating the use of scientific driven skin art as primary prevention tool in private practice.

**Biography**

Dr. Corinne Déchelette studied Pharmacy and Cutaneous Biology in Lyon University, France and is double graduated as Pharm.D in 1996 and as Ph.D in 1997. She joined the research group of Dr. Odile Damour, at the Skin Substitutes Laboratory of the French National Research Center (CNRS) and contributed to the development of artificial skin for major burn patients and cosmetic testing. Then, she worked during 25 years at Pierre FABRE Dermo-Cosmetic group as Scientific Advisor of the chairman, PlatForm Research & Development / Marketing Director, Dermatology Prospective Director and Medical value Director. She is the main inventor of 5 patents relative to cosmetic actives. In 2018, she created the PEAUrigami educational-artistic concept and became in spite of herself, a plastic artist and an author of a book on the skin awarded by a literary prize.



## David E. Fisher

Department of Dermatology, USA

### Melanoma biology from the perspective of skin signaling and UV Pathogenesis

Cutaneous melanoma has undergone a revolution in therapeutic success during the past decade, due to major advances in both targeted therapy and immune therapies. Major insights have been gained through increased understanding of the pathways giving rise to melanoma through, for example, UV mutagenesis. Additional insights have come from an understanding of the pathway through UV induces melanin biosynthesis, which aside from triggering melanogenesis also stimulates beta-endorphin synthesis. Additional information has been gained through studies of the unique chemical consequences of red/blond pheomelanin pigments. This lecture will present studies on the role of UV induced neo-antigens in melanoma immunotherapy responses, as well as the significance of epitope spreading in the immune response, which offers novel therapeutic opportunities.

#### Audience Take Away:

- Provide an understanding of the molecular pathway through which sunlight triggers pigment production.
- Offer information on how melanoma forms, and the role of cell-intrinsic vs environmental risk factors.
- Apply the information to optimize strategies for effective skin protection against sun induced carcinogenesis.

#### Biography

Dr. Fisher studied at Swarthmore College (chemistry and biology) and the Curtis Institute of Music (cello). He obtained a PhD from Gunter Blobel and Henry Kunkel at Rockefeller University and MD from Cornell Medical College. Following clinical training in Internal Medicine, Adult and Pediatric Oncology, he did postdoctoral research with Phillip Sharp at MIT. Fisher joined the faculty at Dana-Farber Cancer Institute where he eventually led their Melanoma Program with a research lab studying melanocyte and melanoma biology. In 2008 he was recruited to Massachusetts General Hospital where he has remained as Edward Wigglesworth Professor and Chairman of Dermatology.



## Makoto Senoo

Department of Molecular and Cell Biology, Boston  
University School of Dental Medicine Boston, USA

### Stem Cells in regeneration and Cancer of Epithelia

The skin is maintained by self-renewal, proliferation, and differentiation of tissue-specific stem cells. We have shown previously that the transcription factor p63 plays an essential role in these processes. Although p63 has high sequence and structural similarities to the tumor suppressor p53, it is rarely mutated in human cancers. Unlike p53, however, p63 is frequently upregulated in various epithelial cancers, leading to the current working hypothesis in the field that p63 plays predominantly an oncogenic role when it is overexpressed. However, transgenic mice overexpressing p63 do not produce spontaneous tumors, raising the possibility that an alternative mechanism of p63 exists in cancer development. By creating a novel mouse model of p63 mutant, we discovered that aberrant splicing of p63 sensitizes the epithelial stem cells to tumorigenesis. The greater details of our findings will be presented later today by Keshia Pitt, a talented PhD student in my lab, who is leading the study of the novel mechanism of the stem cell factor p63-mediated cancer development in epithelia. Expression of p63 can be utilized as a biomarker for the enrichment of epithelial stem cells when it is appropriately monitored. We have found recently that a small molecule compound RepSox stabilizes p63 proteins, allowing us to make the following two challenging tasks possible. First, despite its importance in basic research of regenerative medicine, it is difficult to grow epithelial stem cells of mouse origin, including the skin stem cells, as they rapidly senesce and terminal differentiate. However, we found that the use of RepSox enables expansion of a variety of primary mouse epithelial stem cells long-term while avoiding tumorigenesis. Second, autologous skin grafts in human have been prepared as epidermal sheets cultivated on top of murine-derived 3T3-J2 feeder cells since 1970. 3T3-J2 cells possess indispensable properties to allow skin epidermal stem cells to grow while minimizing their spontaneous differentiation. However, the use of feeder cells of mouse origin has been the debate involving ethical concerns. We found that the use of RepSox can replace 3T3-J2 cells with human feeder cells such as dermal fibroblasts and adipocyte-derived mesenchyme. Thus, the “Boston RepSox” protocol is useful to accelerate both basic research on stem cells using mouse models and a “complete” autologous skin grafting in human.

#### Biography

Dr. Makoto Senoo is Associate Professor in the Department of Molecular and Cell Biology at the Boston University School of Dental Medicine in Boston, USA. Dr. Senoo is a pioneer in the p63 field since its discovery in 1997. His laboratory focuses on intrinsic and extrinsic regulation of homeostasis and diseases of epithelia with a long-term goal of developing stem cell-based therapeutic options.

**SPEAKERS**  
**DAY 01**

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## Terrance L. Baker, MD MS<sup>1\*</sup>, Jack V. Greiner, MS OD DO PhD<sup>2,3\*</sup>, Thomas Glonek, PhD<sup>2</sup>; Paula J. Oliver, AS<sup>2</sup>

<sup>1</sup>Department of Medicine, Johns Hopkins Medicine, Baltimore, MD, USA

<sup>2</sup>Clinical Eye Research of Boston, Boston, MA

<sup>3</sup>Department of Ophthalmology, Harvard Medical School, Boston, MA, USA

### Treatment of dry skin with an emulsion containing plant-based anionic phospholipids

This study compares a skin cream emulsion containing a plant-based anionic polar phospholipid (APP) technology with a mineral oil hydrocarbon (petrolatum)-based (MHB) skin cream technology in the treatment of skin xerosis (dryness) in diabetic feet. Skin cream with APP technology promotes phospholipid absorption, reparation of intercellular lamellae, and organization of water promoting hydration; whereas skin cream with MHB technology principally covers skin, preventing dehydration.

**Methods:** Fifty-four subjects with diagnoses of diabetes mellitus and foot skin dryness were studied using a multicenter, double-blind, masked-study design. An emulsion cream containing 0.05% APP in triglycerides (APP preparation) was compared to MHB skin cream, Eucerin® (MHB preparation) applied topically to dry foot skin. Four efficacy-variables were graded including dryness, erythema, fissures, and itching along with neurovascular assessments. Contrasts between plant-based and mineral-based skin creams and their implications within the context of skin xerosis were made.

**Results:** APP and MHB preparations were similar in safety and effectiveness with no significant difference among any of the 4 efficacy variables ( $P < 0.5$ ) including neurovascular measurements. The APP preparation is absorbed into the skin, whereas the MHB skin cream covers the skin leaving detectable residues after each application. **Conclusion:** The APP and MHB preparations were not significantly different in safety and effectiveness. Upon application of the APP skin cream, the preparation was absorbed into the skin leaving no discernible residue. The MHB preparation notably leaves residues which can lead to potential textile damage. These technologies function in the hydration of skin; however, they differ significantly in their modes of action. The plant-based APP preparation functions actively by phospholipid and triglyceride absorption, reparation of skin lamellae, and in the consequent delivery and organization of waters of hydration in skin on the other hand; the MHB preparation functions passively, hydrating the skin it covers by sealing the skin against dehydration.

#### Audience Take Away:

- Daily around the world, physicians make decisions about applications of topically applied preparations desired to improve underlying skin abnormalities. This presentation identifies important factors that must be considered as a treatment for these abnormalities.
- Significant differences exist between plant-based anionic phospholipid skin preparations vs petroleum (mineral-based) skin preparations in the mechanisms utilized to promote healing.
- Important consequences of plant-based vs mineral-based skin preparations can occur as a result of the treatment choice made by the physician.
- Similar outcomes in healing with the use of anionic plant-based skin preparations vs petroleum (mineral-based) skin preparations may occur, however, there are side effects and possible complications that the physician should be aware.
- Physicians by nature aspire to understand the medications they are using, the mechanisms of action, and the possible consequences of treatment applications.
- This paper lays a foundation of exciting possibilities where plant-based and petroleum (mineral-based) products can have an expanded role in the healing and treatment of skin abnormalities in patients around the world.

- The plant-based anionic skin preparations can be designed as products expected to provide insightful treatments for dermatological abnormalities conditions over time.
- The plant-based anionic skin preparations can be designed as products to include medicants and combinations of medicants for dermatologic conditions.
- Yes, improving the accuracy of the design of plant-based preparation for topical applications can open new doors of treatment modalities and provide additional avenues in healing skin subcutaneous and even deeper level injuries.
- Basically, plant-based anionic phospholipid skin preparations can provide progressive healing of simple as well as complex cutaneous disease processes.

### **Biography**

Terrance L. Baker, MD, MS, is board certified in family medicine, emergency medicine, and geriatrics. Dr. Baker is a graduate of George Washington University School of Medicine and holds a Master of Science degree from Johns Hopkins University. He is the medical director of Sollay Medical Center in Baltimore, Maryland. Dr. Baker is a member of the Department of Medicine at Johns Hopkins Medicine. He also holds teaching posts at the University of Maryland School of Nursing in Baltimore, and the New York University. Dr. Baker has multiple publications and has lectured in the USA and Internationally on SARS-CoV-2.



## Jolanta Idkowiak-Baldys<sup>1\*</sup>, Coline Haxaire<sup>2</sup>, Gloria P. Huang<sup>3</sup>, Frank Liebel<sup>4</sup>, Lisa DiNatale<sup>5</sup>, Siming Chen<sup>6</sup>, Jack Glynn<sup>7</sup>

<sup>1</sup>Avon Products Inc. Global Innovation Center, United States

### Efficacy of Non-proteinogenic Amino acid on dermal and basement membrane components

**N**on-natural, non-proteinogenic amino acids are rather novel in the cosmetic industry. They do not become incorporated into proteins during new protein biosynthesis, and thus, topical application of these actives can lead to skin benefits. We previously demonstrated that a novel proprietary non-proteinogenic amino acid ingredient has significant effect on stimulating epidermal turnover and epidermal hyaluronic acid production leading to clinically observable skin benefit. To shed more light on efficacy of this ingredient, its effect on skin dermal and basement membrane components was evaluated. *In vitro* treatment of 3D tissue skin equivalents led to increase in pro-collagen I production. Additionally, gene expression analysis of the treated 3D tissues revealed increase in expression of collagen synthesis and decrease in matrix metalloproteinases genes that result in collagen degradation. *In vivo*, treatments were evaluated in human volunteer forearms. After the treatment, biopsy samples were obtained and analyzed by histology for total collagen production, collagen III/I ratio, as well as collagen IV and VII. Samples were also collected non-invasively via D-squame tapes and analyzed for HSP-70 protein. HSP-70 is known to protect collagen from degradation and it was shown by us to be a good biomarker of age as well as wrinkle perception. Additional histological analysis revealed increase in dermal-epidermal junction collagens as well as increase in collagen III/I ratio in the dermis. Separately, increase in collagen protecting HSP-70 was observed in skin samples. Taken together, we showed that the novel non-proteinogenic amino acids can increase collagen production and stability throughout the skin layers, which is critical for structural integrity and function of skin and translates to improvement in skin appearance.

#### Audience Take Away:

- New skin health biomarker methods will be shared.
- Audience will learn about correlation of certain skin biomarkers with skin benefits.
- Efficacy of novel bioactive peptide in comparison to industry benchmark will be presented for consideration as a robust alternative to common topical treatments.

#### Biography

Jolanta Idkowiak-Baldys has completed her PhD in Biology from Utah State University and postdoctoral studies from Medical University of South Carolina. Currently, she is a Research Fellow at Avon Products Inc Global Innovation Center in New York, where she leads Bioefficacy research group that focuses on identifying and evaluating new technologies for skincare products. She has published in multiple peer-reviewed journals and holds several industry patents. She has a strong expertise in skin biology, especially in the area of aging, acne, and skin disorders.



## Diaan Jaber

Jordanian Ministry of Health Hospitals, Jordan

### Psoriasis ... Lets think out of the box

**P**soriasis is a chronic disease that causes the rapid buildup of skin cells. This buildup of cells causes scaling on the skin's surface. Inflammation and redness around the scales is fairly common. Typical psoriatic scales are whitish-silver and develop in thick, red patches. Sometimes, these patches will crack and bleed. Psoriasis is the result of a sped-up skin production process. Typically, skin cells grow deep in the skin and slowly rise to the surface. Eventually, they fall off. The typical life cycle of a skin cell is one month. In people with psoriasis, this production process may occur in just a few days. Because of this, skin cells don't have time to fall off. This rapid overproduction leads to the buildup of skin cells. Scales typically develop on joints, such as elbows and knees. They may develop anywhere on the body, including the: Hands, Feet, Neck, Scalp, Face.

Less common types of psoriasis affect the nails, the mouth, and the area around genitals. A doctor usually performs some components of the TORCH screen routinely when a woman has her first prenatal visit. They may perform other components if a woman shows symptoms of certain diseases during the pregnancy. The tests screen for antibodies to infectious diseases. Antibodies are proteins that recognize and destroy harmful substances, such as viruses and bacteria.



Specifically, the tests screen for two different antibodies: immunoglobulin G (IgG) and immunoglobulin M (IgM).

- IgG antibodies are present when someone has had an infection in the past and is no longer acutely ill.
- IgM antibodies are present when someone has an acute infection.

Unfortunately many doctor s and studies look to the TORCH test just for the pregnant women. We have to think more deep to prevent our new generation from those diseases listed above that caused by these viruses

**New criteria of psoriasis treatment:** According to my clinical study for 644 Pt.s suffering from psoriasis 90% of them have +ve TORCH IgG test. So the best drug of choice in Jordan Is Acyclovir "Zovirax, Noviral or virostat". I used it as a corner stone in treatment for 2-3 month s long duration. In addition to betamethasone injection once. Antihistamine drug to relive pain or itching in some cases. The use of local moisturizer as Urea or steroid derivative s is used in the first 2 week s of treatment . Some of psychological support is important in those Pt.'s specially the young female 's . In our region many of our Pt.'s have vitamin D3 deficiency so you have to give your pt. multivitamin drug to rise his immunity especially Vitamin D3 .

**Conclusion:** Psoriasis is not an auto immune disease. Psoriasis is a viral dermatitis , caused by cyto megalovirus "CMV" , Rubella or Herpes semplex virus "HSV". The new modality of treatment use anti viral treatment like Acyclovir.

**Biography**

Dr. Diaa Jaber has ten years of experience in medicine, with a special interest in dermatology and ophthalmology .In addition to his surgical practice, he operates a private clinic that provided him with experience in dealing with a variety of illnesses, especially skin diseases like psoriasis and alopecia and he works with Shami eye center as an ophthalmologist “laser refractive procedures”. Dr. Diaa completed his training and fellowship at the Jordanian Ministry of Health Hospitals. Actively involved in the latest global trends in medicine, and frequently attending international conferences and workshops regarding the advanced techniques and innovations in the health sector and he submitted multiple publications that have been listed in international conferences.



## Olga Simionescu

Carol Davila University of Medicine and Pharmacy, Bucharest,  
Romania

### Skin cancer in Romania- Revisited

**W**ith a predominant third skin type population, Romania has recorded a huge progress in early detection of epidermal skin cancer, carcinoma and melanoma. Despite the fact that no melanoma centers exist and the patients require multiple visits in different departments, melanoma is still correctly and multidisciplinary approached. Few important newly implemented protocols and regulations were introduced in Romania during the last 10 years: the introduction of dermoscopy as mandatory in all tumor examination; the adherence of European guides of tumor staging and tumor management; the use of any accurate marker in pathology specimens; reimbursement of targeted/immunological treatment via the public healthcare system. All above mentioned protocols and regulations can explain the decreasing of tumoral depth in melanoma during the last ten years. The paper revisited many studies published by the author on the topic, reviewing over a period of time starting with huge nodular melanomas, errors in melanoma management and finalizing with dermoscopic aspect of cutaneous metastases (visceral and melanoma). As well, a peculiar characteristic of the iris color in connection with Skin cancer in South Eastern Europe is presented. Last, but not the least, a comparative study between surgical and conservative treatment in BCC is presented, indicating a combination of chemotherapy agents with CO2 laser procedures as very helpful to elderly patients with or without comorbidities.”

#### Biography

Prof. Olga Simionescu, M.D., Ph.D., has been heading the 1-st Clinic of Dermatology, Colentina Clinical Hospital, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania, for the last 11 years. She is an expert in dermoscopy, with a special interest in mucosal lesions, and published important dermoscopy papers in high-ranked international journals. As Professor of Medicine, she is highly qualified in general dermatology and venereology, with a special interest in skin cancers, connective tissue disorders, inflammatory skin diseases, lasers, skin surgery, and skin cells’ physiology ( keratinocytes, melanocytes, telocytes).



## Potekaev N.N.<sup>1</sup>, Gadzhigoroeva A.G<sup>1</sup>, Lvov A.N.<sup>2</sup>, Bobko S.I.<sup>1\*</sup>

<sup>1</sup>Moscow scientific and practical center of dermatovenereology and cosmetology, Russian Federation

<sup>2</sup>Medical research and educational center of Moscow state University named after M.V. Lomonosov, Central State Medical Academy of Medical Center of General Management Department of Presidential Administration of the Russian Federation

### Neuroimmune basis of itch of scalp, clinics and approach to treatment

Itch of scalp is a common problem in dermatovenereological practice. It can be a manifestation of inflammatory, infectious, autoimmune dermatoses, oncological pathology, neuropathic, systemic, psychogenic conditions and unknown etiology. It can be localized or generalized and not always associated with skin conditions. Itch of the scalp is a manifestation of many dermatological diseases (seborrheic dermatitis, contact dermatitis, anxiety, lichen planopilaris, lice, psoriasis). Perifollicular inflammation, secretion of neurotransmitters (substance P), concomitant mental disorders can contribute to it. Red scalp syndrome, first described by Therstrup Pedersen in 1987, is accompanied by constant inflammation of scalp that is not caused by dermatologic disease of scalp and accompanied by itch and burning that can't be treated by topical glucocorticosteroids or antiseborreic drugs, triggered by sun. The possible etiological and pathophysiological factors are perifollicular inflammation and increase of release of substance P close to affected hair follicles. There is connection with atopy or rosacea. Treatment includes sunscreen protection, soft shampoo, avoidance of contact irritation components. The purpose of this study is diagnostics and examination for differentiation of itch and red scalp syndrome.

**Material and Methods:** The examination of a patient B. 72 years old with complains on itch of scalp (5 points by visual analogue scale) during 7 years without any change after zinc pyrithione, systemic metronidazole, ivermectin cream, hydroxyzine, topical glucocorticoids, isoconazole. Demodex was excluded laboratorially.

**Results:** The patient was examined by psychiatrist with recommendations of quetiapine and alimemazine. The rare case of Red scalp syndrome in patient with rosacea on the face was demonstrated because of long history of not effective treatment and problems with diagnostics.

**Conclusion:** It's important to recommend the patient right hygienic care and appropriate cosmetological products with minimal irretention potential together with calming and antiinflammation effect of the ingredients sometimes with psychotherapeutical support.

#### Biography

Bobko Svetlana MD, PhD senior research fellow of Moscow scientific and practical center of dermatovenereology and cosmetology. Graduated with honours from Moscow Medical Academy named after I.M. Sechenov in 2008, after residency of dermatovenereology in Moscow Medical Academy named after I.M. Sechenov 2008-2010, had postgraduate study at dermatology department of Sechenov Moscow State Medical University, due to Russian Federation President Scholarship for studying abroad worked in 2011-2012 in Dermatological Clinic of Muenster University Hospital. Defended thesis in 2013 (scientific mentor A.N. Lvov, A.B. Smulevitch) «Psychogenic itch: aspects of clinical systematics, complex therapy and prophylaxis», since 2014 till now is working in department of clinical dermatovenereology and cosmetology of Moscow scientific and practical center of dermatovenereology and cosmetology. In 2015 was a scientific secretary of 16 ESDaP congress in Saint-Petersburg. In 2017 got Michael Hoenstein Memorial Scholarship by European academy of Dermatology and Venereology. In 2017 got travel grant of international Forum for the Study of Itch (IFSI) to attend 9th World congress on itch. A member of Task groups of EADV of pruritus and psychodermatology. Reviewer of JEADV, Frontiers, Clinical dermatology and venereology. Member of National alliances of dermatovenereologists and cosmetologists, Moscow society of dermatovenereologists and cosmetologists named after A.I. Pospelov, Member of EADV, Member of ESDaP, Member of ISD, Member of IFSI, Member of DDG, member of EAAD. Coauthor of IFSI-guideline of prurigo. In 2016 participated in clinical Study of EADV — validation of itch questionnaires for patients (organized by S.Staender), and in 2017 in European Prurigo Project by EADV. Secretary of Local ethics committee. Author of more than 30 publications. Speaker of local and foreign conferences and congresses.



## Denise Steiner Reis Longhi

Dermatology, Mogi das Cruzes University, Mogi das Cruzes, São Paulo, Brazil

### Tranexamic acid in the treatment of Melasma

**T**his lecture will talk about the use of tranexamic acid for the treatment of melasma.

Melasma is a prevalent and chronic disease which we don't know the exact mechanism of action. There are a lot of stimuli to provoke it, for example: sun, hormones, stress, heat, local trauma and skin irritation.

Tranexamic acid is an antifibrinolytic drug that prevents the transformation of plasminogen into plasmin, thus avoiding all the provocative stimuli.

The dosage we use systemic tranexamic acid to treat melasma is 500mg once a day during four to six months.

We have just finished a meta-analysis study, and I will comment the results.

#### Audience Take Away:

- Complete pathophysiology of melisma.
- Tranexamic acid indications.
- How to treat with systemic tranexamic acid.
- How to combine tranexamic acid with other treatments.

#### Biography

Denise Steiner, MD, PhD, President of the Brazilian Society of Dermatology - 2013/2014. Coordinator of the Chapter of the College Cosmetics College Ibero Latino - CILAD, São Paulo, Brazil. General Secretary of the Congress College Ibero Latino - CILAD Rio de Janeiro 2014.



## **Jose Eduardo Lintz**

Instituto Ivo Pitanguy, Brazil

### **Face lifting – How to obtain the best results**

**T**reating the skin and the muscles to achieve more natural and long results, dr lintz will show some of his results. Following the technique of the known reference in plastic surgery, professor pitanguy, dr lintz shows the technical details to obtain a effective, natural and optimal results.

#### **Biography**

Plastic surgeon from são paulo, brazil pitanguy's institute. Brazilian society of plastic surgery. American society of plastic surgery. International society of aesthetic plastic surgery.



## Keshia Pitt<sup>1\*</sup>, Makoto Senoo<sup>2</sup>

<sup>1</sup>Graduate Program in Molecular and Translational Medicine, Boston University School of Medicine, Boston, Massachusetts, USA

<sup>2</sup>Department of Molecular and Cell Biology, Boston University Henry M. Goldman School of Dental Medicine, Boston, Massachusetts, USA

### Role of aberrantly spliced stem cell factor p63 in the development of epithelial cancer

p63, a homologue of the transcription factor p53, is essential for maintaining the proliferative capacity of epithelial stem cells. The p63 gene yields two major isoforms transcribed from dual promoters and at least three different splice variants at its carboxy-terminus. The TAp63 $\gamma$  isoform functions as a p53-like tumor suppressor and transactivates p53 gene targets. In contrast,  $\Delta$ Np63 $\alpha$  predominates in epithelial stem cells and regulates their proliferative potential, whilst also acting as an oncogene by suppressing the function of both p53 and TAp63 $\gamma$  in a dominant-negative manner. Frequent upregulation of  $\Delta$ Np63 $\alpha$  has been reported in human epithelial cancers and suggests a role in tumorigenesis, though the molecular mechanisms of its aberrant activity are unclear. Our prior studies found specific expression in squamous cell carcinomas of an aberrantly spliced  $\Delta$ Np63 $\alpha$  isoform lacking exon 4-coded sequences (the  $\Delta$ 4 isoform). Further assessment of gene expression and protein binding by DNA microarray and ChIP-seq respectively identified gene candidates with expression patterns unique to this aberrant isoform and with relevance to cell cycle control, inflammation, and apoptosis. Our data show that mice carrying a heterozygous allele of the  $\Delta$ 4 isoform show an increased susceptibility to tumorigenesis, suggesting that dysregulation of p63 splicing may link stem cells to cancer. We will discuss our ongoing effort elucidating the potential involvement of this aberrantly spliced p63 isoform in the disruption of stem cell regulatory gene programs during cancer development of epithelia.

#### Audience Take Away:

- Novel mechanisms of aberrant  $\Delta$ Np63 $\alpha$ -mediated co-dominance with other genes under tumorigenic conditions and  $\Delta$ 4-dependent gene programs responsible for accelerated tumor development, presenting avenues for identification of new therapeutic targets.
- Aberrant  $\Delta$ Np63 $\alpha$  as a diagnostic marker for aggressive phenotypes of skin squamous cell carcinomas.
- Aberrant  $\Delta$ Np63 $\alpha$  as a metric with which to narrow variation in classification and staging of squamous cell carcinomas, improving on current head and neck SCC-based assessments.

#### Biography

Keshia Pitt is a PhD student who completed a BS degree with Biology major at St. John's University in New York in 2014. She joined the research lab of Dr. Makoto Senoo in the Henry M. Goldman School of Dental Medicine at Boston University in 2018 for her graduate thesis work in dissecting the crosstalk between stem cell gene program and cancer development, using the skin as a primary model.



## Patience Johnson

Derma Contour Aesthetic and Beauty Clinic Limited, Abuja, Nigeria

### Acne Scar reconstruction

The idea of the treatment is to find an alternative natural way of treating Scars and acne instead of the usual Retinoid, fillers, other steroids and anti-biotics to get a long lasting result. We applied Multi-treapanic collage actuation method. This is a treatment that uses several needles to create rapture on the scar surface thereby activating more collagen to fill up the scars. It is the best method so far to achieve a new and less sebum production tissue using different methods including laser.

We had 5 people in different age classes:

We tried examining the medical history, lifestyle, age, etc. to determine the underlying cause of the acne scars.

Client A - is a 21year old lady. The acne was caused by wrong use of cosmetic whitening cream.

Client B - is a 45year old lady with seborrhea acne for more than 25 years, has tried everything possible but to no avail, because of the various wrong treatments, she was left with deep Scars. The skin was still active with sebum production, so the treatment aimed at reducing the scar and the sebum production.

Client C - 37year old lady, acne caused by PCOS.

Client D - a 23year old lady with infection and wrong use of cosmetic product.

Client E - a 19year old young man with acne scar that makes him look older than his age.

All treatment was conducted every two weeks for the period of three months.

Conclusion: There was semi-permanent result and a visible good and new skin after the three months therapy.

#### Audience Take Away:

- How to identify the underlying Factor.
- Which method to apply.
- How to do Multi-treapanic Collagen Actuation.
- Learn more about the laser techniques.
- How to do a follow up with the client.

#### Biography

Dr. Patience Johnson is a world renowned German Trained Cosmetic Dermatologist with so much experience in Laser Technology, a Professor in health care, eminent Researcher and an edupreneur. The first African lady to acquire these titles of; Cosmetic Professional Landlady (BFA), specialist and manageress in Germany. She is a medical Icon. She won the 2021 World Education Icon award as "ICONIC Doctor and Leader" in India. She is a prolific writer, an Author, a beauty and Aesthetic Industry Entrepreneur. She has won so much awards on cooperate leadership including the German "Adler Award" and World Education summit award. A German board certified Pedagogy. Founder and CEO of Derma Contour Skin Clinic worldwide with head office in Germany. She is currently consulting at Derma Contour Aesthetic and Beauty Clinic Abuja, treating different kinds of skin issues.



**Hebert Lamblet**  
Vikaara Klinik, Portugal

## Autologous fat grafting preserving adipose derived cells, new technologies and their impact on skin and hair care

**G**oal / Purpose: Besides the fact that fat grafting gained popularity, isolation of ADCs (Adipose Derived Cells) and fat tissue manipulation still remains controversial. In 2001, a putative Stem cell population was isolated within the adipose stromal compartment. Since then, many studies exhibited and confirmed the abundance of adult mesenchymal cells, endothelial progenitor cells and growth factor-producing cells derived from fat tissue. Isolation of those cells, its activation and their immediate use for fat transplant still remain a challenge. The purpose of this study is to show our evolution from chemical to mechanical dissociation of those cells from the fat tissue stroma since 2002

**Methods / Technique:** Adipose tissue is collected from the abdomen of patients undergoing liposuction. The fat is harvested and processed using two selective methods. **Chemical:** 100 mls of Fat is submitted to the collagenase isolation method. The stromal vascular fraction is centrifuge and the infranated pellet is reserved . **Mechanical:** After 100 mls of Fresh Adipose Tissue was washed with a saline solution, a collagenase free Mechanical shear Force maneuver is made, generating a gradient force that detaches the ADCs from the adipose tissue stroma. The presence of mesenchymal stem cells isolated in the pellet was confirmed by Indirect Immunofluorescence and Flow Cytometer analysis in a selective sample data in both methods

**Results / Complications:** From February 2002 to October 2020, 741 patients benefited from autologous fat transplant preserving ADCs. Chemical Dissociation was just used to compare the final pellet counting . Mechanical Dissociation. Was the selected method for human use . The donor site was the abdomen. An average of 20 to 30 million mesenchymal stem cells / 100ml of processed lipoaspirate was isolated with the Mechanical method compared to 30 to 40 million from the Chemical Method .

**Conclusion:** Up to now, adipose-derived cells isolation and fat tissue manipulation was mainly be done in the lab or using expensive processing machines and collagenase. The mechanical method has shown to be reproducible is collagenase free and has been used since 2006 in a long-term evaluation.

### Biography

Dr. Lamblet is an experienced surgeon who specializes in Plastic and Reconstructive Surgery in Brazil with the prestigious Pitanguy Institute having the ability to work with Prof Ivo Pitanguy in his private Clinic for 3 years. He is a Board Certified Plastic Surgeon since 1999 and works in his private practice, Vikaara Klinik, in Brazil and Lisbon Portugal . He continues to be involved in research on fat grafting and adipose-derived stem cells in the USA and Brazil bringing innovation and technology to the daily use of Plastic Surgery and Regenerative Medicine. He is a frequent sought- after lecturer worldwide on this medical topic. Over 20 years of compassionate individualized expert surgical care and leadership experience as owner operator of 3 Clinics . As a scientific researcher in the field, the importance for him is always the unwavering patient satisfaction. He has recently completed successfully a second Masters Degree at the Federal University of São Paulo.



**Nsrein Ali<sup>1-6\*</sup>, Hamid Reza Rezvani<sup>2-3</sup>, Diana Motei<sup>1</sup>, Sufyan Suleman<sup>1</sup>, Walid Mahfouf<sup>1</sup>, Isabelle Marty<sup>4</sup>, Veli-Pekka Ronkainen<sup>5</sup>, Seppo J. Vainio<sup>1,6,7</sup>**

<sup>1</sup>Faculty of Biochemistry and Molecular Medicine, Biocenter Oulu, Laboratory of Developmental Biology, University of Oulu, Oulu, 90220, Finland

<sup>2</sup>University of Bordeaux, Inserm, BMGIC, UMR 1035, Bordeaux, France

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<sup>4</sup>Grenoble Institut des Neurosciences, University Grenoble, Inserm U1216, La Tronche, France

<sup>5</sup>Biocenter Oulu

<sup>6</sup>Infotech Oulu, Kvantum Institut, Oulu, 90220, Finland

<sup>7</sup>Flagship GeneCellNano, Oulu University, Oulu, Finland

## **Towards developing personalized skin associated glucose biosensor diagnostics for Type I Diabetes**

**C**oping with diabetes requires frequent invasive blood glucose-based monitoring. Partly for this reason, and also because of the associated reduced skin wound healing and consequent increased risk of infection, non-invasive glucose monitoring technologies are needed. We report here that in both an in vivo preclinical type I diabetes model and healthy controls, skin keratinocytes react notably to high blood glucose with induced Trisk 95 protein and gene expression. Importantly, this response is independent of the presence or absence of insulin. This glucose-induced Trisk 95 expression increases intracellular calcium and concurrently compromises mitochondrial properties, which can be rescued by Trisk 95 knockout. Thus skin cells may provide a novel way of measuring blood glucose by monitoring Trisk 95 expression. This would serve as an insulin-independent glucose-responsive biomarker for use in personalised, vital and real-time blood glucose biosensor applications. Key words: Triadin, skin, endoplasmic reticulum, mitochondria, high glucose, keratinocytes

### **Biography**

Dr. Nsrein Ali, PhD, Developmental Biology Laboratory, Faculty of Biochemistry and Molecular Medicine, University of Oulu. Following a scholarship awarded by the Syrian Research Ministry of High Education, Nsrein received her PhD "Role of the transcription factor HIF-1a in the skin physiology and its response towards UV exposure" in Biotechnology from INPL at Lorraine University in 2011. Dr. Ali moved back to Syria with an assistance research position at Aleppo city-Syria, and worked as lecturer at two Universities, Aleppo and Dier ez-Zour (2011-2012). Dr. Ali moved to Oulu-Finland in 2013, where she started her post-doc. Dr. Ali is now the responsible researcher for the Tandem Industry Academia project (2021-2023) "*Clinical Validation of Novel Sport and Diabetes Related Analytes Offer New Wearable Diagnostics Solution*" in partnership with Polar Electro to develop a smart watch for non-invasive blood glucose monitoring. Nsrein leads the skin team in Pr. Vainio's lab and is currently supervising one PhD student, five master students and one research assistant. The main research focus of Dr. Ali's is investigating a new strategy for developing non-invasive blood glucose monitoring in the skin based on the identification of novel biomarkers. Dr. Ali has eleven peer reviewed publications in international journals and four under revision.



## Anupam Das<sup>1\*</sup>, Piyush Kumar<sup>2</sup>

<sup>1</sup>Department of Dermatology, KPC Medical College and Hospital, Kolkata, India

<sup>2</sup>Consultant Dermatologist, Katihar, India

### Blaschkolinear Dermatoses : A potpourri

Linear lesions are fairly common in our daily practice. However, the appearance of these lesions can vary, thus complicating the diagnosis. They act as diagnostic clues to many dermatological conditions, therefore, the importance of meticulous examination in clinical dermatology cannot be overemphasized. We conducted an institution-based, cross-sectional, descriptive study of 281 consecutive patients with linear lesions attending dermatology clinics. MedCalc software (V11.6) was used for statistical analysis. We came across numerous cases of linear lichen planus, lichen striatus, incontinentia pigmentii etc., and noticed an interesting pattern (to be discussed in the presentation). Apart from the common cases, there was a wide gamut of rare conditions (e.g. angiokeratoma circumscriptum naeviforme, porokeratotic eccrine ostial and dermal duct naevus, Blaschko-linear syringocystadenoma papilliferum, progressive cribriform and zosteriform hyperpigmentation, unilateral naevoid acanthosis nigricans, fixed drug eruption, discoid lupus erythematosus). Therefore, linearity of a lesion can spark the synaptic flashpoint for the diagnosis of numerous conditions, provided we are aware of the same (common or uncommon).

#### Audience Take Away:

- Audience will be learning about common presentation of uncommon diseases, and uncommon presentation of common diseases.
- It will be emphasized that clinical dermatology and meticulous examination of a patient, is the gold standard approach towards any patient, inspite of the fact that the world has delved deep into cosmetic and aesthetic dermatology.
- Audience will come across plenty of interesting rarely reported dermatological conditions, and they will be on the look-out for such diagnoses once they go back to their clinics.

#### Biography

Dr Anupam Das has done his MBBS and MD from the oldest medical school in Asia (Medical College and Hospital Kolkata). He is a Gold Medalist in the postgraduate final examination 2015. He has more than 310 publications to his credit, and serving many journals as an editorial board member (Associate Editor, Clinical and Experimental Dermatology; Section Editor, Indian Journal of Dermatology, Venereology and Leprology; Deputy Editor, Indian Journal of Dermatology and Pigment International). He was an invited speaker in WCD Milan, 2019 on "Future of leprosy", and he is a recipient of numerous national and international scholarships.



## Madhu Gupta

Department of Pharmaceutics, School of Pharmaceutical Sciences,  
Delhi Pharmaceutical Sciences & Research University, India

### Revolutionary natural biopolymers for wound healing therapy: Borrowing from nature

Chronic, non-healing diabetic wounds put a massive economic burden on health services causing patient incomppliance and discomfort. Thorough interpreting of chronic wound pathophysiology led to the fabrication of targeted systems of drug delivery that can improve and accelerate the wound healing process. Natural polymers or biopolymers are now explored for the fabrication of wound dressings. Hence, in this review article, the pathophysiological aspects of chronic wounds, current treatment approaches, and potential biomaterials employed for treating wounds are explicated. The main emphasis is on biopolymers which aid in creating innovative systems based on nanotechnology for effective skin generation in chronic wounds.

#### Biography

Dr. Madhu Gupta is working as an Associate Professor in Delhi Pharmaceutical Science and Research University, New Delhi. She has research experience pertaining to drug delivery to nanoformulations for magical molecule delivery, bioligands for targeting of bioactives and drug moiety, biopolymers, cancer nanomedicine as well as topical delivery. She has over 80 research publications to her credit published in journals of high scientific impact and contributed 30 chapters in various renowned books with h index 20 and more than 100 citations.. She has the recipient of Research Excellence of the Year 2020, Youth Education Icon of the Year 2018, Young Scientist Award, Best Administrative Service Award, IDMA-G.P. Nair award and Prof. C.S. Chauhan award, BioAsia Innovation Award – 2012, Grace India awards. She has also filed the PCT patent for effective wound healing therapy.



## Julieta Peralta-Arambulo

Asian Hair Restoration Center, Phillipines

### Hair transplant: The art in Follicular unit extraction

**F**ollicular Unit Extraction or Follicular Unit Excision (FUE), is the latest technique and the major advancement in hair transplant surgery. FUE has evolved and improved substantially during this time and is believed to becoming even better because of recent innovations that in order not to be associated with more harm than good must be applied thoughtfully and conservatively and honestly while avoiding overly aggressive use. (Walter Unger Forum Nov- Dec. p245). FUE is performed using small rotating dull or sharp punch to harvest the individual follicular units from the scalp back donor region. There are many FUE devices available, including the most expensive and highly mechanized device, Robotics (ARTAS), but still, the most sophisticated instrumentation cannot replace the skill and experience of the physician

To be able to perform FUE procedure, physician needs training, continuous knowledge and the choice of FUE device technology. Physician's higher skills, efficiency and speed in harvesting the 1000s of intact individual grafts with the device affects the end results. When individual follicular units are removed from a donor site and transplanted to a recipient site, the follicles should be all physiologically healthy and anatomically intact. Healthy, intact follicles are more likely to thrive and produce hair at the transplant recipient site. In this presentation I share with you my choice of FUE device which are: 1mm disposable punch and the POWERED SAFE SCRIBE. I use 0.8 and 0.9mm blunt punches to extract the individual's follicular units. With these FUE devices, even the most advanced FUE techniques such as body hair transplant and non-shaven FUE are possible. In addition, importance of attention to procedure details and a good surgical team to optimize the hair transplant procedure results will be highlighted. The FUE applications from my experience are the following:

Patients who want to wear their hair very short  
Patients who do not want a linear scar on the back  
Combines with strip procedure to harvest more grafts.  
Patients who tend to heal with thickened and wide linear.

#### Biography

Julieta Peralta-Arambulo, M.D., FPDS, DABHRS, FISHRS Fellow, Philippine Dermatological Society, Diplomate, American Board of Hair Restoration Surgery Fellow, International Society of Hair Restoration Surgery, President and Founder, Asian Hair Restoration Center Section Head, Aesthetic Dermatology and Hair Transplant Service at the Wellness and Aesthetic Center, The Medical City. Consultant, Skin and Cancer Foundation of the Philippines. Member, Asian Association of Hair Restoration Surgeons. Fellow, Philippine Academy of Cutaneous Surgery.



## Antoine Salloum<sup>1</sup>, Nagham Bazzi<sup>2\*</sup>, Diane Maalouf<sup>1</sup>, Maya Habre<sup>1</sup>, Ahmad Rached<sup>3\*</sup>

<sup>1</sup>Department of Dermatology, Saint George Hospital University, Medical center, Beirut, Lebanon

<sup>2</sup>Faculty of Medicine, Lebanese University, Beirut, Lebanon

<sup>3</sup>Lebanese University, Lebanon

### Microneedling in Vitiligo: A systematic review

**BACKGROUND:** Microneedling was initially introduced for skin rejuvenation, however, this minimally invasive procedure is now being used for the treatment of multiple dermatological conditions. Recent reports have shown its efficacy in the treatment of vitiligo.

**OBJECTIVE:** This review analyzes the current literature on microneedling techniques, efficacy, and safety for vitiligo treatment.

**METHODS:** An extensive PubMed was done to identify literature on microneedling treatment for vitiligo. Case reports, case series, and clinical trials were included in this review.

**RESULTS:** All 14 articles evaluated showed improvement of vitiligo lesions after microneedling treatment. The combination of microneedling and topical tacrolimus, 5-FU, topical calcipotriol and betamethasone, NB-UVB with or without PDT, and triamcinolone acetonide solution yielded more efficacy than microneedling monotherapy

**CONCLUSION:** Microneedling is a safe and efficient technique in the treatment of vitiligo. Thus, it can be an alternative treatment for vitiligo especially when the latter is resistant to conventional therapies.

#### Audience Take Away:

- Microneedling was proved a safe and effective method for vitiligo treatment.
- Dosages and guidelines of microneedling were discussed.
- Further Randomized cohort studies assessing microneedling in combination with other treatments are now warranted.

#### Biography

Nagham Bazzi has completed her medical Diploma at the age of 25 years from The Lebanese University, Faculty of Medical Sciences. She holds also a baccalaureate degree in the piano from the national conservatory of Lebanon. She has published more than 10 papers in peer-reviewed journals and has been serving as a reviewer in the journal of Cosmetic Dermatology.

**POSTERS**  
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**18-19** **MAY**



## Yinghua Chen

Department of Histology and Embryology, NMPA Key Laboratory for Safety Evaluation of Cosmetics, School of Basic Medical Sciences, Southern Medical University, Guangzhou 510515, China

### Continuous ZnO nanoparticle exposure induces melanoma-like skin lesions in epidermal barrier dysfunction model mice through anti-apoptotic effects mediated by the oxidative stress-activated NF- $\kappa$ B pathway

Increasing interest in the hazardous properties of zinc oxide nanoparticles (ZnO NPs), commonly used as ultraviolet filters in sunscreen, has driven efforts to study the percutaneous application of ZnO NPs to diseased skin; however, in-depth studies of toxic effects on melanocytes under conditions of epidermal barrier dysfunction remain lacking. **Methods:** Epidermal barrier dysfunction model mice were continuously exposed to a ZnO NP-containing suspension for 14 and 49 consecutive days *in vivo*. Melanoma-like change and molecular mechanisms were also verified in human epidermal melanocytes treated with 5.0  $\mu$ g/ml ZnO NPs for 72 h *in vitro*. **Results:** ZnO NP application for 14 and 49 consecutive days induced melanoma-like skin lesions, supported by pigmented appearance, markedly increased number of melanocytes in the epidermis and dermis, increased cells with irregular nuclei in the epidermis, recruited dendritic cells in the dermis and dysregulated expression of melanoma-associated gene *Fkbp51*, *Trim63* and *Tsp 1*. ZnO NPs increased oxidative injury, inhibited apoptosis, and increased nuclear factor kappa B (NF- $\kappa$ B) p65 and Bcl-2 expression in melanocytes of skin with epidermal barrier dysfunction after continuously treated for 14 and 49 days. Exposure to 5.0  $\mu$ g/ml ZnO NPs for 72 h increased cell viability, decreased apoptosis, and increased *Fkbp51* expression in melanocytes, consistent with histological observations *in vivo*. The oxidative stress-mediated mechanism underlying the induction of anti-apoptotic effects was verified using the reactive oxygen species scavenger N-acetylcysteine. **Conclusions:** The entry of ZnO NPs into the stratum basale of skin with epidermal barrier dysfunction resulted in melanoma-like skin lesions and an anti-apoptotic effect induced by oxidative stress, activating the NF- $\kappa$ B pathway in melanocytes.

**Keywords:** Zinc oxide nanoparticles, Epidermal barrier dysfunction skin, Melanocyte, Oxidative stress, Anti-apoptosis, NF- $\kappa$ B p65

#### Audience Take Away:

- Cdc42 knockout mice, as a skin barrier destruction animal model, is a good tool to study the safety of cosmetics.
- It is dangerous that continuous and long-term use of cosmetics with ZnO NPs, When the disease leads to the destruction of skin barrier.
- To provide experimental basis and methods for finding new safer materials for sunscreen cosmetics

#### Biography

9/1997 - 6/2002 - B.S. studies in School of Medicine Shi Hezi University, Shi Hezi

**Thesis:** Clinical Medicine

9/2003- 6/2006 - M.S. studies in First Military Medical University, Guangzhou

**Thesis:** The improved effect of human hair keratin for wound healing of rat skin

9/2011 - 6/2014 - M.D. studies in Southern Medical University, Guangzhou

**Thesis:** The generation of gene-knockout animal and cellular model to investigate the improved effect of cdc42 for wound healing of skin.

Published more than 6 research articles in SCI(E) journals.



## Porsokhonova D.F\*, Rosstalnaya M.L., Rakhmatullaeva S.N.

Republican Specialized Scientific and Practical Medical Center for  
Dermatovenereology and Cosmetology Tashkent, Uzbekistan

### Tactics of treatment of patients with genital warts depending on the presence of concomitant infections

Genital warts (GW) are one of the most clinically pronounced manifestations of human papillomavirus infection (HPV), and many authors have already referred to the group of background diseases of the genitals. Given the growing prevalence of GW both among men and women and their frequent association with other sexually transmitted infections (STIs) of the new generation, and, consequently, their course against the background of inflammation, it is realistic to assume that, despite the benign nature of genital warts, they are able to participate in starting the mechanism of dysplastic transformation of genital tissues. Especially in cases where the treatment of GW is limited to destruction. In this regard, one of the principles of effective therapy for GW is the combination of destruction with antiviral treatment. Also, one of the desired goals of GW therapy is to minimize traumatic effects and accelerate the healing time. In this regard, the purpose of this study was to optimize the tactics of therapeutic measures in relation to GW.

We observed 48 non-pregnant women diagnosed with genital warts at the age from 18 to 45 years, belonging to the socially adapted contingent of average material income. For the microbiological characterization of the landscape of the urogenital tract, bacteriological, microscopic and PCR studies of the discharge and scraping of the urogenital tract (UGT) were used. For the treatment of patients, a protocol was drawn up, providing for external therapy with imiquimod 5% for 3-4 weeks at home in patients who did not have any associated STIs. Patients with GW on the background of concomitant bacterial STIs were treated with imiquimod against the background of antibiotic therapy in accordance with the identified pathogen. Patients with concomitant herpesvirus STIs were treated with imiquimod against the background of systemic antiviral drugs (isoprinosine, valacyclovir). At the end of antibacterial / antiviral treatment, therapy with antifungal drugs (fluconazole) was prescribed to prevent and treat candidal complications. After 4 weeks, the clinical results of local immunotherapy with imiquimod were evaluated, respectively, a decrease in the number and size of warts by 25%, 50% or 100%. The remaining condylomas were subjected to laser destruction using a CO2 laser. A similar tactic was used to reduce the amount of traumatic effects from destruction.

Results and conclusions. Condylomas appeared for the first time in 25 (52.1%) patients, in the remaining 23 (47.9%) cases there was a recurrent course of GW. Among the infections of the urogenital tract, any pathogens from the STI group or from the composition of the concomitant microflora in the form of a mono-infection or mixed infection were detected in 42 (87.5%) women examined. Pathogens from the STI group were detected in: *Neisseria gonorrhoeae* - in 1 (2.1%), *Chl.trachomatis* patients - in 3 (6.2%), *Trichomonas vaginalis* - in 2 (4.2%), *Ureaplasma urealyticum* - in 13 (27.1%), *Mycoplasma Genitalium* - in 5 (10.4%). As part of mixed or mono-infection, the accompanying microbial flora was represented by the following microorganisms: in 12 (25.0%) patients, fungi of the genus *Candida* were detected, in 9 (18.8%) - *Gardnerella vaginalis*, in 4 (8.3%) - *St. Haemolyticus*, in 5 (10.4%) - *St. Saprophyticus*, 4 (8.3%) - *Enterobacter*, 3 (6.2%) - *St. aureus*, in 3 (6.2%) - *St. Epidermidis*, *Enterococcae spp*, *St. Pyogenes*, *Escherichia coli*, *Proteus vulgaris*. After the complex therapy, we evaluated the clinical and microbiological results of treatment, which showed that conservative therapy using isolated imiquimod 5%, as well as imiquimod in combination with antibacterial / antiviral / antifungal therapy, gave the following results: 25% of GW underwent resorption and disappearance in 8 (16.7%) patients, 50% - in 18 (37.5%), 100% - in 22 (45.8%). In general, 26 (54.2%) patients needed laser destruction at the end of complex therapy, while the area and number of GW s in them significantly decreased in comparison with the picture during the initial treatment, which also made it possible to reduce the area of destruction. Microbial agents identified before treatment were also eliminated during antibacterial therapy, which made it possible to reduce the inflammatory process and accelerate healing after destruction. GW relapses in the 6-month follow-up period were observed in 3 (6.3%) patients.

Thus, a comprehensive assessment of the clinical and microbial background in patients with genital warts followed by adequate antibacterial / antiviral / antifungal debridement in combination with imiquimod 5% can significantly reduce the need for GW destruction, the healing time after destruction, and the number of relapses.

**Audience Take Away:**

- The algorithm of treatment of genital warts recommended by us will significantly individualize the approach to treatment, reduce the number of complications and relapses of the disease.
- It can be useful for obstetrician-gynecologists, dermatovenereologists, oncologists.

**Biography**

Poroskhonova Delya Fozilovna, dermatovenereologist, Doctor of Medical sciences. Leading specialist of the Republican Scientific and Practical Medical Center of Dermatovenereology and Cosmetology of the Republic of Uzbekistan on STIs and reproductive disorders. Author of more than 270 scientific papers. Has about 30 years of experience Research interests: chlamydial-mycoplasmal, papillomavirus infections, dystrophic diseases of the genitals, genital warts, laser therapy for diseases of the skin and urogenital tract.

**Lina Chan<sup>1\*</sup>, H.L. Greenberg, M.D.<sup>2</sup>**<sup>1</sup> University of Nevada Las Vegas School of Medicine<sup>2</sup> Las Vegas Dermatology**A Demonstrative Case Series on Prophylactic Treatment of Post Excised Keloids with Topical Imiquimod****Importance:** Keloid excision alone can have recurrence rates approaching 80%.**Objective:** To evaluate the clinical use of topical Imiquimod in prophylaxis of keloid regrowth post keloid excision.**Design, Setting, and Participants:** Our study is a retrospective case series involving 6 patients with auricular keloid (lobule or helix) present from months to years who were treated at Las Vegas Dermatology from 2006 to 2022.**Results:** All 6 patients had normal wound healing post-keloid excision with zero recurrences.**Conclusion and Relevance:** Little is known about Imiquimod efficacy for keloid growth prophylaxis. Our study demonstrates that Imiquimod 5% topical applied nightly for six weeks post keloid removal is well tolerated resulting in prophylactic treatment of keloid recurrence.**Biography**

Lina Chan University of Nevada Las Vegas School of Medicine, United States.

**Bruin Pollard<sup>1\*</sup>, Jordan Phillipps<sup>2</sup>, Caroline Mann MD<sup>3</sup>**

<sup>1</sup>Medical Education Program, Washington University School of Medicine, St. Louis, MO, USA

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**Scalp Rolling for Alopecia Areata: A Case Series**

**A**lopecia areata (AA) is a multifactorial autoimmune hair loss disorder with few treatments. We report five cases of AA refractory to conventional therapy who exhibited remarkable hair regrowth after adding scalp rolling as an adjuvant to topical clobetasol and minoxidil. These patients, two males and three female aged 7–36 years, achieved upwards of 95% hair regrowth over 13–17 months of follow-up. No side effects were reported. These findings support scalp rolling as a safe, accessible, and effective adjuvant treatment option for cases of refractory AA.

**Audience Take Away:**

- Alopecia areata (AA) is a hair loss disorder often refractory to conventional topical therapy.
- Scalp rolling is a safe, affordable, and potentially effective adjuvant therapy for AA.
- We present five cases of AA who experienced remarkable hair regrowth after scalp rolling.
- Dermatologists should consider adding scalp rolling to conventional therapy for AA.

**Biography**

Bruin Pollard is a fourth-year medical student at Washington University School of Medicine in St. Louis, MO. He received his BA in physics from the University of California in Berkeley, CA. He is interested in the field of dermatology and aspires to solve its most challenging practical problems through clinical research. His research focus includes chronic inflammatory disorders as well as representation of skin of color in medical education materials. He has published four peer-reviewed journal articles to date.



## Dr Sunil Vartak<sup>1</sup> Dr Monil Gala<sup>2\*</sup> Dr Snehal Muchhala<sup>2</sup>, Sucheta Roy<sup>3</sup>, Seema Bhagat<sup>2</sup>, Dr Rahul Rathod<sup>3</sup>, Dr Amey Mane<sup>2</sup>

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<sup>3</sup>Department of Medical Affairs, Dr Reddy's Laboratories Ltd, Hyderabad, Maharashtra, India

### A real-world study to evaluate the effectiveness of a moisturizing cream as an adjuvant in the treatment of eczema

**Introduction:** Eczema is a group of papulosquamous diseases in skin and has various types. It is a common skin condition marked by itchy and inflamed patches of skin. The main symptom of eczema is itchy, dry, rough, flaky, inflamed, and irritated skin. It can flare up, subside, and then flare up again. Eczema can occur anywhere but usually affects the arms, inner elbows, backs of the knees, or head (particularly the cheeks and the scalp). It is not contagious, and, in some cases, becomes less severe with age. Moisturizers play an important role in the management of several skin disease as an adjunct therapy.

**Methods:** In this 2-group, real world setting study, one group received a moisturizer- Venusia Max Cream to be used as adjuvant, along with prescribed treatment, whereas the other group received only the prescribed treatment (steroids) prescribed by Investigator. The primary objective was to evaluate the moisturizing efficacy of Venusia Max Cream when used as an adjuvant to the main line of treatment for eczema. The evaluation criteria included significant reduction in EASI (Eczema Area and Severity Index) scores, measuring skin hydration using MMSC (Moisture Meter-SC), reduction in itch score and reduction in burning sensation.

**Results:** At the end of the study at 4 weeks, 113 out of the 120 patients enrolled completed the study. In the group with Venusia Max cream, significant reduction in the EASI score as compared to the baseline; significant increase in skin hydration as compared to baseline and to the comparator group where Venusia Max Cream was not used; significant reduction in itching score as compared to baseline and to the comparator group where Venusia Max Cream was not used along with treatment; and significant reduction in burning sensation was recorded.

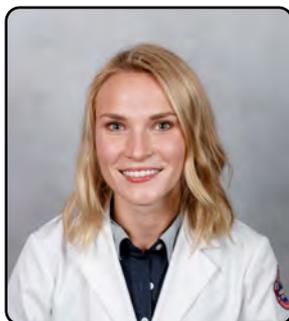
**Conclusion:** Venusia Max Cream improved the skin hydration significantly on eczematous skin of patients and significantly reduced the itching score compared to the group of treatment where Venusia Max Cream was not used.

#### Audience Take Away:

- Moisturizer is an important adjuvant treatment option in the various skin disorders.
- Moisturizers have an important role in maintenance therapy.
- The current real-world study emphasizes the role of moisturizers in improving the quality of life.
- Venusia Max Cream improved the skin hydration significantly on Eczematous skin of patients and significantly reduced the itching score compared to the group of treatment where Venusia Max Cream was not used.
- Ingredients of the moisturizer also play an important role in determining the beneficial effect of the adjuvant therapy and patient compliance.

#### Biography

Dr Monil Gala is currently a Medical Advisor for Dr Reddys Laboratories Ltd for the Dermatology therapy area. He has completed his MBBS and MD Pharmacology from India.



**Ola Baczynski<sup>1\*</sup>, Dr. Parvin Nejatmahmoodaliloo,  
Dr. Mario Bovino, Dr. Maria Avendano, Dr. Najiyah  
Salwa, Dr. Clement Rose**

University of Illinois, United States

## **Unusual Presentation of Invasive Cutaneous Squamous Cell Carcinoma on Posterior Thigh**

**Introduction:** Cutaneous squamous cell carcinoma (cSCC) is the second most common skin cancer in the United States, after basal cell carcinoma. Ultraviolet radiation through sun exposure is considered the greatest risk factor, which explains why cSCC most typically presents on the face, neck, scalp, extensor forearms, dorsal hands, and shins. Several other environmental exposures have also been associated with increased risk for cSCC including chemical agents, immunosuppressive medications, chronic inflammation of the skin such as with ulcers or sinus tracts, trauma, burns, and viruses, most notably HPV<sup>2</sup>. cSCC is often characterized as slow progressing, with metastasis of the lesion being rare (3-9%)<sup>2</sup>. However, cSCC can emerge in “nontraditional” areas with aggressive characteristics, so clinical suspicion should remain high when examining open wounds and ulcers.

**Case Description:** A 69-year old male with a past history of depression, not currently on medications, presented to the emergency department with an abscess on his left posterior thigh. The patient first noticed the wound about two weeks ago which was becoming painful and draining pus. The patient denies trauma to the area, prior burn, or history of immunosuppressive medications. On the physical exam, the patient was found to have a 6 x 8 cm open wound with necrotic tissue noted at borders. There was also surrounding erythema as well as a foul odor with drainage. Initial X Ray of the left thigh showed a 6 x 8 cm open wound with evidence of necrotic tissue with concern for necrotizing fasciitis or malignancy. CT left lower extremity showed superficial cellulitis vs skin neoplasm of the posterior left upper leg as well as partially necrotic reactive or metastatic left inguinal lymphadenopathy. Wound biopsy showed skin with keratinizing and well to moderately differentiated invasive squamous cell carcinoma. Wide local excision of the entire lesion with a 6 mm margin was completed six days after initial presentation. Plastic surgery was consulted on whether the patient would require skin grafting. Plan to follow up outpatient with dermatology and oncology due to MRI findings concerning for metastatic process.

**Discussion:** Although the patient presented with an extensive 6 x 8 cm lesion on his posterior thigh, he believes that the wound only emerged a few weeks prior. Whether the patient had an initial actinic keratosis which underwent transformation, or a lesion which went undetected, is irrelevant and only serves to demonstrate the fact that cSCC can aggressively progress and involve a significant area of skin without causing significant pain. Because the lesion was not in a site associated with bedsores, such as the hips, tailbone, or heels, there was an immediate concern of malignancy which prompted biopsy. However, if the patient had been bedridden, a cSCC could be assumed to be a bedsore wound. It is imperative that clinicians keep cSCC as a potential diagnosis, even if the lesion is not in an area traditionally associated with ultraviolet light exposure. In this particular case, the patient has evidence of local lymphadenopathy, concerning for metastasis of the lesion. Additionally, the primary site invaded a significant depth of tissue, making excision of the entire neoplasm challenging. There are several characteristics associated with more aggressive subtypes of invasive cSCC such as: size over 4 cm, multiple tumors, histologic features with poor differentiation, as well as anatomic location. Tumors of the ears, lips, cheeks, and face are often characterized as high risk lesions due to their location. This case presentation calls into question whether those anatomic risk factors should be broadened. Further research is needed to definitively extrapolate the correlation between anatomic location and malignant potential.

### **Biography**

Alexandra (Ola) Baczynski is a current fourth year medical student at the University of Illinois at Chicago. She is also a member of the Urban Medicine Program, which is an organization committed to addressing health care disparities throughout the city of Chicago. Ola volunteers as a health educator at Deborah's Place, a nonprofit who provides housing for women experiencing homelessness. Additionally, as a first generation American and college graduate, she is passionate about providing access to non-English speakers. Although she is currently deciding on what specialty to apply to in the fall, she is very interested in dermatology, specifically the various presentations of cutaneous malignancies.



## Sophia Elisa Kivelitz

Clinic for Plastic Surgery and Hand Surgery, Klinikum Rechts der Isar,  
Munich, Bavaria, Germany

### 3-D analysis of fat graft survival in reconstructive breast surgery

**I**n Dermatological surgery and Plastic surgery Lipofilling is a common method to optimize surgical results in terms of reconstruction. Aside from its application on the entire body surface Lipofilling is particularly established in breast surgery.

Since breast cancer is still the leading cause of death among women and up to one third of patients undergo mastectomy, multiple techniques of breast reconstruction are highly relevant (1,2). Subcutaneous fat is biocompatible, easily accessible (3,4,5) and causes less allergic reaction and granuloma as non-autologous materials (3, 6, 7, 8, 9). In order to do justice to the shape and volume of the female breast in its natural complexity, Lipofilling represents a both simple and effective surgical option. It offers the possibility to restore or enhance volume, correct defects and asymmetries and improve contours.

Lipofilling usually consists of the following steps: the fat harvesting through liposuction, the preparation by centrifugation and the transplantation of the purified lipoaspirate with slim cannulas in various layers at the recipient site. Donor sites are mostly abdomen, flanks or thighs.

Current discussions on Lipofilling engage particularly in the oncological safety of the method as well as in fat graft survival. The prediction of the required injection volume poses a significant challenge in the process of Lipofilling. Which technique of fat harvesting, processing and injection is the most effective? And what parameters may possibly compromise the engraftment of the injected fat?

In this study, a statistical analysis of breast volume and lipid retention was made, to show the overall effect of Lipofilling as well as possible effects on increased or decreased resorption rates. By using 3D imaging and measuring tools, breast volumes were calculated before and at five follow up dates after Lipofilling.

The aim of this project was to develop a technique of evaluation in order to quantitatively measure the breast contour change after surgery. The exact calculations of post operative volumes may significantly improve the outcome of the treatment and increases its predictability.

#### Audience Take Away:

- The study shows the audience how to work with computer assisted surgery and its benefits.
- The audience learns more about certain limitations and subjections of fat graft survival.
- The research can help other faculties to improve the assessment of predictability of fat grafting.
- The results provide practical solutions in terms of patient information and simplifies the patient's consultation.
- Computer assisted-plastic surgery can improve the accuracy of measuring fat graft survival.

#### Biography

MS Sophia Elisa Kivelitz studied Human Medicine at the Technical University, Munich, Germany and graduated as MD in 2017. She joined the research group (CAPS-Computer assisted plastic surgery) of Dr. med. Maximilian Eder in the department of Plastic surgery and Hand surgery at Klinikum Rechts der Isar, Technical University Munich. From 2015 until 2021 patients data from fat grafting surgeries was analyzed in terms of fat graft survival and possible limiting factors.

# Rabiah Begum<sup>1\*</sup>, JM Batchelor<sup>2</sup>, Kim Thomas<sup>2</sup>, Elena Louizidou<sup>3</sup>, and Iftekhar Khan<sup>4</sup>

<sup>1</sup>University of Leicester

<sup>2</sup>University of Nottingham,

<sup>3</sup>R-S-S,

<sup>4</sup>University of Warwick

## Mapping the EQ-5D-5L to two condition specific measures in Vitiligo patients: the VITIQL and the VNS: Results from the Hi-Light trial.

**Introduction:** Vitiligo presents a significant health related quality of life (HRQoL) burden. The Viti-QoL is a 16 item condition specific measure. The Vitiligo Noticeability Scale (VNS) is a 5 point clinical measure of vitiligo. Neither instruments are suitable for economic evaluation. No mapping algorithm to convert between EQ-5D-5L and these instruments exist, at present. We present two mapping algorithms that can be used to convert responses into utilities using data from the HI-Light randomized control trial.

**Methods:** Data from 181 patients were collected at screening and 6 months for Viti-QoL and at 3 and 6 months for VNS. For Viti-QoL, the total score across all 16 items was used through a linear mixed effects model as well as Beta Binomial (BB) Regression models. For VNS, a discrete 'U' shaped, a non-linear 4 parameter model was used to model mean utility over each VNS category. The model was of the form  $EQ-5D = \alpha + \beta * VNS + \gamma * \log(VNS + \delta)$ . Several other model forms were also used.

**Results:** For the Viti-QoL, the model identified was:  $0.9736 - 0.00216 * \text{Total VitiQoL score}$ . The AIC was -583; and predicted vs observed mean (SD) utilities were 0.896 (0.158) vs 0.884 (0.029), respectively. For the VNS, the notable 'U shape' of the mean utilities resulted in a poor linear fit with an AIC of -9.1 and mean predicted vs observed utilities of 0.904 (0.153) vs 0.896 (0.050) respectively. The non-linear model was of the form:  $0.91 + 0.0566 * VNS - 0.112 * \log(VNS + 0.9)$ . The 95% CI for each of the parameters  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$  were (0.82, 1.19); (-0.052, 0.164), (-

0.584, 0.192) respectively. The predicted vs observed mean (SE) utilities were 0.918 (0.015) vs 0.917 (0.014) respectively with an AIC of -25.6.

**Conclusion:** We have shown the feasibility of mapping between EQ-5D-5L and VITIQL and VNS. There remain challenges in modelling EQ-5D utilities with VNS due to the discrete nature of the distribution.

### Audience Take Away:

- The Vitiligo Noticeability Scale (VNS) and VitiQoL are instruments which are not suitable for economic evaluation.
- No mapping algorithm to convert between EQ-5D-5L and these instruments exist, at present. This presentation will offer a mapping algorithm to convert between EQ-5D-5L and these instruments.
- The mapping algorithms established in the abstract will provide information that does not currently exist and will improve the accuracy of future studies focusing on the economic evaluation of treatments for Vitiligo.
- The audience will be able to implement these algorithms to improve economic evaluation studies and improve the accuracy of study designs related to research in Vitiligo.

### Biography

Rabiah Begum is currently an experienced Medical Statistician specializing in Health Technology Assessment and working in collaboration with the University of Warwick and Leicester University. Rabiah is pursuing a PhD in Medical Statistics and specializes in designing clinical trials for Economic Modelling and Clinical Decision Making.

# KEYNOTE FORUM

## DAY 02

3<sup>RD</sup> EDITION OF  
INTERNATIONAL CONFERENCE ON

**DERMATOLOGY  
AND  
COSMETOLOGY**

**18-19** MAY



## Lee Kar Wai Alvin<sup>1\*</sup>, KW Chan CH Lee, KF Lee

<sup>1</sup>EverKeen Medical Centre, Hong Kon

### Treating vitiligo with Intense Pulsed Light (IPL)

**Background:** Vitiligo is a long-term skin condition characterized by patches of the skin losing their pigment. This study evaluates the efficacy of Intense Pulsed light (IPL) for Chinese patients with vitiligo. Most of them are resistant to conventional vitiligo. We are presenting three Chinese patients with vitiligo resistant to oral and topical treatments successfully managed with intense pulsed light treatment. Methods 3 cases with oral and topical medications treated vitiligo Chinese patients referred by other doctors were studied. All three of them received 10 sessions of IPL treatment in a three weeks interval. Clinical photos were taken in every visits. Two individual blinded investigators were asked to assess and compare with the pretreatment photos. Results There were significant clinical improvement in the area of depigmentation. Long term follow up is suggested to assess how long the effect can last.

**Conclusion:** This study suggests IPL is effective in improving the resistant vitiligo. However, long term follow up is needed to assess the duration of repigmentation effect.

#### Biography

Dr Alvin Lee, MBChB (CUHK), MScPD (Cardiff), PgDipPD (Cardiff), PGDipClinDerm (Lond), DipMed (CUHK), DC(Sydney), is a general practitioner with special interest in aesthetic medicine. He has Master in Practical Dermatology and Master in Clinical Dermatology at Cardiff University and is also a clinical tutor (honorary) at the Division of Family Medicine and Primary Health Care, The Chinese University of Hong Kong.



## Chilicka Karolina\*, Monika Rusztowicz

Department of Health Sciences, University of Opole, Opole, Poland

### Effects of cosmetological treatment- topical hydrogen purification on acne skin condition.

**A**cne vulgaris is a prevalent dermatological disease characterized by skin eruptions, which may decrease the sufferer's quality of life. Hydrogen purification treatment is a new procedure used in cosmetology to improve the skin parameters of the face. This study examined the effectiveness of hydrogen purification treatment to improve women's skin conditions with regard to acne vulgaris. **Methods:** In this study, 30 women participated who suffered from a high level of sebum and acne. The control group was comprised of 30 healthy women with a low level of sebum. The Hellgren-Vincent Scale and Derma Unit SSC 3 device were used to assess acne vulgaris severity and skin properties, respectively. Four hydrogen purification sessions were carried out at 7-day intervals, using the Hebe Hydrogenium+ generating alkaline water. **Results:** At baseline and 7 and 14 days after finishing the series of treatments, the levels of oiliness, moisture, and skin pH were tested. The main effects of treatment were significant in the following parameters: pH around the bottom lip, moisture between the eyebrows and around the nose, and oily skin in all three face sites.

**Conclusions:** The level of sebum decreased and moisture levels increased during hydrogen purification. Topical hydrogen purification is an effective and safe treatment for acne vulgaris.

#### Audience Take Away:

- It will help cosmetologists in their work (new cosmetology treatment in their beauty parlors) for acne skin, oil skin and also other skin type.
- Fast treatment- fast effects.
- Hydrogen purification can be connected with sonophoresis or non needle mesotherapy (with ampoules).

#### Biography

Karolina Chilicka PhD: cosmetologist, Department of Health Sciences, University of Opole, Opole, Poland. Her research interests are focusing on acne vulgaris skin, oil skin, cellulite. As a cosmetologist she is trying to use cosmetics and new cosmetological devices to reduce skin problems. Also very important aspect in her research field is quality of life of her patients.



## Dr Lisa Chan

EverKeen Medical Centre, Hong Kong

### **Treating acne vulgaris patients who are resistant to oral Isotretinoin, tetracycline, Doxycycline with Intense Pulsed Light (IPL)**

**B**ackground Acne Vulgaris is a long-term skin disease that occurs when hair follicles are clogged with oil and dead skin cells from the skin. Severe cases were treated with oral doxycycline, tetracycline and even isotretinoin. Nevertheless, many cases were resistant to oral isotretinoin or recurrence occur once the physician stopped the medication. We are presenting three Chinese patients with acne vulgaris resistant to oral medications successfully managed with intense pulsed light treatment. **Methods** 3 cases with oral medications treated acne vulgaris Chinese patients referred by other doctors were studied. All four of them received 12 sessions of IPL treatment in a three weeks interval. Clinical photos were taken in every visits. Two individual blinded investigators were asked to assess and compare with the pretreatment photos. **Results** There were significant clinical improvement in the number of comedones, redness and active lesions. The scarrings do not have significant improvement in appearance. **Conclusion** This study suggests IPL is effective in improving the number of comedones, redness and active lesions of oral isotretinoin resistant acne vulgaris patient. However, scarring cannot be improved with intense pulsed light treatment.

#### **Biography**

Dr LISA CHAN, MBChB (CUHK), MScPD (Cardiff), PgDipPD (Cardiff), PGDipClinDerm (Lond), DipMed (CUHK), DCH (Sydney), is a general practitioner with a keen interest in aesthetic medicine.



## Dr Rachita Dhurat\*, Dr Richa Sharma

Department of Dermatology, LTMMC and Sion Hospital, Mumbai, Maharashtra, India

### A study of histopathology and CD3 immunohistochemistry in alopecia areate

**D**iagnosis of alopecia areata (AA) can be challenging when clinical presentation is not classical. One of the earliest and most important histopathological feature which we expect to see is the peribulbar lymphocytic infiltrate however it may not be appreciable in many cases.

**Aims and objectives :** To demonstrate the utility of CD3 immunohistochemistry in diagnosis of alopecia areata.

**Methodology:** A 3mm punch biopsy from margin of alopecic patch was done in 87 patients with clinically diagnosed alopecia areata. The gross biopsy specimens were then cut to remove excess fat of subcutaneous tissue till the hair bulbs were visible. The biopsy was then processed to get a horizontal section at the level of bulb and stained with Hematoxylin and Eosin ( H & E ) and CD3 immunohistochemistry was performed. Sections obtained were examined by two blinded observers for presence of appreciable peribulbar infiltrate. Association was found out between histopathology with Hematoxylin and Eosin and CD3 immunohistochemistry by using appropriate statistical test.

**Results:** Out of 87 patients 25 had diffuse type of AA and 62 had patchy type.

Out of 62 cases of patchy AA 22 were CD3<sup>+</sup> and among these CD3<sup>+</sup> cases 14 (63.6%) did not show appreciable peribulbar infiltrate on H & E. This difference was statistically significant with p value < 0.05.

Among all 25 cases of clinically suspected diffuse alopecia areata , 5 (20%) were CD3 positive and none showed appreciable peribulbar infiltrate on H & E.

Out of total 87 patients enrolled in the study 19 patients that is 70.4% patients which were CD3<sup>+</sup> failed to show appreciable infiltrate on H & E. This difference was statistically significant with p value < 0.05.

**Conclusion:** This study demonstrates that in 54 out of total 87 patients (87.1%) of clinically diagnosed alopecia areata, peribulbar infiltrate was not apparent in routine H & E staining. Around 70% of cases showed CD3 positivity but failed to show appreciable infiltrate on H & E. Immunohistochemistry has an edge over H & E staining in detection of lymphocytic infiltrate in AA.

#### Audience Take Away:

- This study shows peribulbar lymphocytic infiltrate is not present in majority of cases of Alopecia areata.
- One cannot rely on routine Hematoxylin and Eosin ( H & E ) staining for diagnosis of alopecia areata.
- Diagnosis of difficult cases of Alopecia areata cannot be done on H & E and CD3 immunohistochemistry can be useful.

#### Biography

Dr Rachita Dhurat is the professor and head of Department of Dermatology at LTMMC and Sion hospital, Mumbai. She was the only female dermatologist who became a member in International Advisory Committee for 6th Congress For Hair Research in 2010, Cairns Australia. She is member of International society of Dermatology, American Academy of Dermatology, international dermoscopy society and Member of Asia – Pacific centre for aging skin (APCAS), for Proctor & Gamble Ltd Australia. She is a scientific advisor to Scientific Folica Bio,USA and Faculty for F1000- post peer publication review for trichology. She has received Systopic oration award at international congress of dermatology, Delhi, Dec 2013 for microneedling for hair stimulation and Dr Marquis oration at Cuticon Nov 2018, Nagpur. She has received International Scholarships at AAD 2018 and WCD 2019. She has been the Chairperson and organising secretary in the hair conference - Trichology Update 2015, 2016, 2017, 2018.



**SPEAKERS**  
**DAY 02**

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COSMETOLOGY**

**18-19** **MAY**



## Yan Wu\*, Shaomin Zhong, Xuechan Bi, Hsieh Daniel Meng-Yen

Department of Dermatology, Peking University First Hospital, Beijing, China

### Dermal injection of Hyaluronic acid in improving skin texture: From bench to bed

Changes in skin quality include structural atrophy and functional defects of the epidermis and dermis caused by various reasons. These skin quality changes can manifest as dry skin and roughness, large pores, fine lines, acne scars and many more. Dermal injection of both non-cross-linked hyaluronic acid (NCLHA) and cross-linked hyaluronic acid (CLHA) can immediately increase the thickness and water content of the dermis and improve the skin quality, and thus, have become increasingly popular in clinics. Some animal experiments and human subject researches have shown changes in the dermal micro-environment after dermal HA injections, which induced continuous traction of fibroblasts and increased new collagen synthesis. In comparison to NCLHA, the longer half-time and stronger expansion strength of CLHA provide a better and longer-lasting effect. Clinically, dermal injection of CLHA offers both rapid and long-lasting effects on improving skin quality. Since the injection layer is intradermal, the results are relatively safe with less serious adverse reactions such as vascular occlusion. However, because different products have different and unique characteristics and the thickness of the skin also vary among injection sites, it is important that clinicians are very familiar with the products and are able to strictly control the depth and amount of injection in order to achieve optimal results. This presentation focuses on the mechanisms, injection indications and contraindications, standardized treatment protocol for different treatment purposes and injection sites, common adverse reactions and solutions for clinical reference.

#### Audience Take Away:

- From the results of animal experiments and human subject researches, we found that dermal injection of hyaluronic acid can stimulate fibroblasts to synthesize new collagen, resulting in skin quality improvement.
- CLHA has a better and longer-lasting effect on improving skin quality when compared with NCLHA in both basic research and clinical usage.
- We provide details of injection indications and contraindications, standardized treatment protocol for different treatment purposes and injection sites, common adverse reaction and solutions for clinical reference.

#### Biography

Dr. Yan Wu studied Dermatology at the Peking University, China and graduated as MD and PhD in 2001. She then joined the Department of Dermatology at Peking University First Hospital and practiced as a dermatologist. She majors in aesthetic dermatology and has expertise in lasers and other energy-based device treatments, peelings, BOTOX injections, filler injections etc. At the same time, she focuses on skin physiology research work. She has published more than 90 papers in core journals and more than twenty articles in SCI (E) journals.



## Jiahui Jin\*, Jingjun Zhao

Department of Dermatology, Tongji Hospital, School of Medicine, Tongji University, Shanghai 200065, China

### Human amniotic epithelial cell derived extracellular vesicles promote hair growth by activating wnt/ $\beta$ -catenin and shh signaling

**H**air loss is a common condition, but there are significant limitations to present treatments. The promotion in the hair follicle cycle from the telogen to the anagen stage is the significant mechanism to regulate hair regrowth. Human amniotic epithelial cells (HAECs)-derived extracellular vesicles (EVs) have been considered an attractive treatment for hair growth.

**Methods:** HAECs from human amniotic membranes were isolated and identified with specific markers. hAEC-EVs were isolated from the hAEC culture medium and identified with a nanoparticle tracking analysis (NTA), transmission electron microscopy (TEM), and western blot. The depilated C57BL/6 mice were treated with hAECs or hAEC-EVs. H&E staining, RT-PCR and immunofluorescence staining were used to analyze the promotion of hairgrowth. And Ki67 immunofluorescence staining and wound healing assays were used to evaluate the effect of hAEC-EVs on the proliferation and migration abilities of human hair follicle cells.

**Results:** The hAEC and hAEC-EVs promoted the regrowth of back hair of mice after depilation. The hAEC-EVs profoundly accumulated proliferation and migration of hair follicle cells. The therapeutic effects of hAEC-EVs may be due to upregulation of hair growth-promoting signaling pathway including Wnt/ $\beta$ -catenin and Shh signaling.

**Conclusions:** hAEC-EVs promote the hair growth via activation of Wnt/ $\beta$ -catenin and Shh signaling pathway. And hAEC-EVs could be developed as a potential therapeutic approach for hair loss.

#### Audience Take Away:

- This study indicated that the hAEC and hAEC-EVs could promote the regrowth of back hair of mice after depilation.
- This study supported that the hAEC-EVs could accumulated proliferation and migration of hair follicle cells.
- The results also showed that the therapeutic effects of hAEC-EVs may be due to upregulation of Wnt/ $\beta$ -catenin and Shh signaling.
- This study revealed that hAEC-EVs could be developed as a potential therapeutic approach for hair loss.

#### Biography

Miss. Jin studied Dermatology at the School of Medicine, Tongji University. She has published research articles "BMSC-derived extracellular vesicles intervened the pathogenic changes of scleroderma in mice through miRNAs" in 2021.



## Ago Harlim

Department of Dermatology and Venereology Indonesian Christian University, Indonesia

### Warning Silicon Ingredient in Daily uses Cosmetic

**S**ilicone is a chemical element with semimetallic characteristic, which is derived from cross-linked polymer with methyl siloxane as the basic element. In daily life, silicone can be found as simeticone (antifoams used in antacids), silicone oil for lubricant and cosmetic products such as conditioner and shampoo to make hair silky and shiny. In using cosmetic products, there are risks of silicone penetrating the skin. New technology may increase this penetration which causes complications. The most frequent complications from silicone injection are chronic inflammation, redness, foreign body reaction, and granuloma. This research was conducted with the aim of evaluating silicone level in normal female skin tissue who used daily cosmetics.

**Methods:** This research involved thirty seven female skin from face lift surgery compared to female skin who had developed granuloma after silicone injection. The silicon levels in skin samples were measured using an atomic absorbance spectrophotometer.

**Results:** The average silicone level found in normal individuals was low, at  $44.07 \pm 75.86 \mu\text{g/g}$ , compared to the average silicone level found in those who developed post-silicone granuloma, at  $1709.21 \pm 1851.72 \mu\text{g/g}$ , which is 38 times higher.

**Conclusion:** Silicon may be found in normal skin tissue due to daily use of cosmetic products. There are some risks of silicone penetrating the skin, mainly by using cosmetic products containing silicone daily. Further study is needed to understand how the topical silicone can penetrate into the skin.

### Biography

I was born on November 4th, 1967 in Banjarmasin. I live at Jalan Gajah Mada NO.193A, Jakarta City, West Jakarta. I graduated from 1986-1987 Faculty of Biology, Grossmont Collage, San Diego USA, 1987-1993 Faculty of Medicine, Christian University of Indonesia, Jakarta-Indonesia, 1995-1997 Faculty of Medicine. Plastic & Reconstruction surgery short course. The first Military Medical University. Nan Fang Hospital, Guangzou-China, 1998-2000. Faculty of Public Health. University of Indonesia. Postgraduated program. Magister Hospital administratition/MARS. Jakarta-Indonesia, 2022-2006 Faculty of Medicine. Department of Dermatovenerology. University of Diponegoro. Semarang 2003 Diploma in Aesthetic Medicine, American Academy of Aesthetic Medicine. 2010-2015 program Doctoral at University of Indonesia Professional now Director Yayasan Suling Galuh, Jakarta 1997-2000 Director Puskesmas Sirna Jaya. Government Public Health Center. Bekasi 1997- Now Director JMB Clinic. Indonesia 2006- Now Dermatovenerologist at JMB specialic clinic. Jakarta-Indonesia 2009- Now Director of [www.aestheticsurgerytechnique.com](http://www.aestheticsurgerytechnique.com) 2010 - Now instructor at Christian University of Indonesia. Skills Management, Public Health, General Practionar doctor.



## Monica Trifitriana\*, Rido Mulawarman

Faculty of Medicine, Sriwijaya University, Palembang, South Sumatra, Indonesia

### the best efficacy treatment for alopecia androgenetic: A systematic review and Meta-analysis

Androgenetic alopecia (AGA), is a genetically predetermined disorder due to an excessive response to dihydrotestosterone (DHT). Currently, non-surgical treatment of androgenetic alopecia is more in demand by patient. There are many non-surgical treatments, ranging from topical treatments, oral medications, and procedure treatments.

**Objective:** We aim to assess the latest evidence of the efficacy of non-surgical treatments of androgenetic alopecia in men comparison to placebo for improving hair density, thickness, and growth.

**Method:** We performed a comprehensive search on topics that assesses non-surgical treatments of androgenetic alopecia in men from inception up until November 2021.

**Result:** There were 24 studies out of a total of 2438 patients divided into five non-surgical treatment groups to assess the effectiveness of hair growth, namely: minoxidil 2% (MD: 8.11 hairs/cm<sup>2</sup>), minoxidil 5% (MD: 12.02 hairs/cm<sup>2</sup>), *low-level laser light therapy/LLLT* (MD: 12.35 hairs/cm<sup>2</sup>), finasteride 1mg (MD: 20.43 hairs/cm<sup>2</sup>), and *Platelete-Rich Plasma/PRP* with microneedling (MD: 26.33 hairs/cm<sup>2</sup>). All treatments had significant results for increasing hair growth particularly in cases of androgenetic alopecia in men ( $P < 0.00001$ ).

**Conclusion:** From the results, it was found that the five non-surgical treatment groups proved to be effective and significant for hair growth, particularly in cases of androgenetic alopecia in men. In order of the best non-surgical treatment for hair growth starting from PRP with microneedling, Finasteride 1mg, LLLT, minoxidil 5%, to minoxidil 2%.

#### Biography

Dr. Monica studied about medicine at Sriwijaya University, Indonesia and graduated as MD in 2019. She then joined the research group with any of consultant doctors in Indonesia. She received her scholarship from LPDP to continue her study. Nowadays, She has published 10 research articles in journals based on scopus.



## Sheena Chatrath<sup>1\*\*</sup>, Donald Lei<sup>2</sup>, Muhammad Yousaf<sup>2</sup>, Rajeev Chavda<sup>3</sup> Sylvie Gabriel<sup>3</sup> Jonathan Silverberg<sup>5</sup>

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### Longitudinal course of depressive symptoms in patients with Atopic Dermatitis

Atopic dermatitis (AD) is associated with eczematous lesions, chronic pruritus, skin pain, sleep disturbance, all of which may negatively impact mental health and lead to depression. However, little is known about the predictors and longitudinal course of depressive symptoms in patients with AD over time.

**Objective:** To determine the predictors of and longitudinal course of depressive symptoms in adult patients with AD.

**Methods:** A prospective, dermatology practice-based study was performed (n=695). AD severity (EASI) and Patient Health Questionnaire (PHQ)-9 were assessed at baseline and follow-up visits approximately every 6 months.

**Results:** At baseline, 454 (65.32%) had minimal, 139 (20.00%) mild, 57 (8.20%) moderate, 27 (3.88%) moderately severe, and 8 (2.59%) had severe depression. Overall, the majority of patients had fluctuating levels of depressive symptoms. The depressive symptoms found to be more persistent than fluctuating over time were feeling bad, thoughts of self-harm, difficulty concentrating, and slow movement. Patients with severe AD were significantly more likely to experience depression over time. Predictors of depression over time included moderate and severe facial erythema (adjusted  $\beta$  [95%]: 0.583 [0.337--0.830], 1.011 [0.703-1.318] respectively); mild, moderate and severe pain (adjusted  $\beta$  [95%]: 1.092 [0.718-1.466], 2.826 [2.462-3.190], 4.107 [3.768-4.446] respectively); mild and moderate nipple eczema (adjusted  $\beta$  [95%]: 2.317 [1.773-2.861], -3.863 [-5.287- -2.440]); moderate and severe itch (adjusted  $\beta$  [95%]: 0.938 [0.603-1.273], 3.902 [3.545-4.260]); mild pityriasis (adjusted  $\beta$  [95%CI]: (2.317 [1.774-2.860])); 1-2, 3-4, 5-6, and 7 nights of sleep disturbance (1.828 [1.781-1.876], 2.525 [2.462-2.588], 4.472 [4.370-4.573], 6.873 [6.804-6.942]); age of 65+ years ( $\beta$  [95%CI]: 0.330 [0.082-0.579]); Hispanic, African American, and other non-white race ( $\beta$  [95%CI]: 0.312 [0.171-0.454]), (1.739 [1.591-1.887]), (-1.184 [-1.277--1.091], respectively); male gender ( $\beta$  [95%CI]: 0.838 [0.659-1.017]); and patients with Medicaid, Medicare, and Uninsured/self-pay ( $\beta$  [95%CI]: 3.880 [3.539-4.221], 1.226 [0.901-1.550], (-1.005[-1.440--1.091], respectively).

**Conclusion:** Overall, patients with AD had fluctuating levels of depression. However, a subset of depressive symptoms were found to persist over time. Severity of AD signs and symptoms had strong associations with poor mental health and depressive symptoms over time.

#### Audience Take Away:

- Listeners will learn which patients with AD are at greatest risk for depressive symptoms over time.
- Providers will learn when patients with AD should be referred to a mental health specialist.

#### Biography

Sheena Chatrath studied Biology and Psychology at Saint Louis University and graduated as a BA in 2018. During this time, she joined the research lab of Dr. Qin Liu at the Center for the Study of Itch at Washington University. Sheena attends University of Illinois College of Medicine where she will earn her MD in 2023. She is a current dermatology research fellow at George Washington University studying atopic dermatitis under the guidance of Dr. Silverberg.



## Chilicka Karolina\*, Monika Rusztowicz

Department of Health Sciences, University of Opole, Opole, Poland

### Effects of cosmetological treatment - Effects of cosmetological treatment- Sonophoresis with green tea, bamboo extract and lactic acid on acne skin condition

**A**cne vulgaris is a prevalent dermatological disease characterized by skin eruptions, which may decrease the sufferer's quality of life. The patients were divided into two groups. Group A underwent a sonophoresis procedure using ultrasound and ultrasound gel combined with a green tea and bamboo extract ampule. Group B was the placebo group, where sonophoresis was performed using only the ultrasound gel (no ampules). The members of the placebo group were convinced that they were undergoing sonophoresis with a green tea and bamboo extract ampule. Before and after the series of procedures, sebum levels were measured in the skin. Each patient underwent a series of 5 procedures using sonophoresis equipment at a one-week interval. Sonophoresis with the green tea and bamboo extract contributed to the reduction of skin eruptions and sebum levels in the participants of the study (group A).

**Conclusions:** The study results demonstrate that the combined use of plant preparations and ultrasound has a positive effect on the skin of people suffering from acne vulgaris, including reduction of skin eruptions and sebum levels on the surface of the skin.

#### Audience Take Away:

- It will help cosmetologists in their work with acne skin, oil skin.
- Fast treatment- fast effects.
- Sonophoresis can be connected with other cosmetological treatments (hydrogen purification, microdermabrasion, oxyabrasion).

#### Biography

Karolina Chilicka PhD: cosmetologist, Department of Health Sciences, University of Opole, Opole, Poland. Her research interests are focusing on acne vulgaris skin, oil skin, cellulite. As a cosmetologist she is trying to use cosmetics and new cosmetological devices to reduce skin problems. Also very important aspect in her research field is quality of life of her patients.



## Valeria Barreto Campos

University Jundiai, Brazil

### Evaluation of cutaneous rejuvenation associated with the use of ortho-silicic acid stabilized by hydrolyzed marine collagen

During the aging process, a significant reduction in several trace elements is observed, and silicon is one of them. The reduction of silicon levels results in decreasing in collagen synthesis by fibroblasts and in the activation of dermal collagenase. The main source of silicon in humans is obtained through absorption by the gastrointestinal tract, either from silica found in cereals, which has low bioavailability, or in the form of ortho-silicic acid, the most commonly absorbed form, which is found in low concentrations in water and beer. Studies have demonstrated that the therapeutic supplementation of organic silicon strengthens nail and hair, increases collagen and elastin synthesis, promotes maintenance of vascular elasticity and increases calcium fixation in bone tissue. Thus, the supplementation of silicon in the form of ortho-silicic acid stabilized by hydrolyzed marine collagen, water-soluble, a highly bioavailable form of silicon, can be used for skin rejuvenation. Our

group research evaluated the skin changes associated with the use of orthosilicic acid stabilized by hydrolyzed collagen. The patients were randomized to receive 600 mg of ortho-silicic acid stabilized by hydrolyzed collagen (group 1, n = 11) or placebo (group 2, n = 11) to be taken 15 minutes before breakfast for 90 days. A total of 22 patients Caucasian male and female volunteers from 40 to 60 years old were included. For analysis of the results, clinical, photographic, and patients' subjective evaluations were conducted. Results of Clinical evaluations demonstrated changes in skin texture, firmness, and hydration statistically superior in group 1. Brightness, firmness, and overall appearance showed trends for a difference favoring group 1 according to patients' subjective evaluations. Objective images showed no statistical differences. No side effects, hypersensitivity, or systemic symptoms were observed in group 1. Treatment satisfaction in group 1 reached 80%. The study showed that ortho-silicic acid stabilized by hydrolyzed collagen in a daily dose of 600 mg showed positive results in skin rejuvenation according to clinical evaluation in firmness, hydration, and skin texture. Further studies with larger and representative samples should be conducted to confirm our results.

#### Audience Take Away:

Silicon is a life-important micronutrient related to the synthesis of collagen. The reduction in the body during the aging process shows the supplementation of silicon as a good anti-aging. Silicon in the organic form has a low bioavailability, low solubility and undergoes polymerization. The industry developed a stabilized form of silicon as ortho-silicic acid stabilized by hydrolyzed marine collagen for better bioavailability. The clinical study with 22 volunteers showed interesting results by the supplementation of the stabilized form of silicon during 90 days, opening precedents for further investigations regarding the results of supplementation of this trace element.

#### Biography

Dr. Valeria Campos is a dermatologist who became a research fellow in dermatology and laser at Harvard Medical School, graduating in 1999. Dr. Campos has published many and two books as the main author: the first: "Laser and other sources of electromagnetic energy in dermatology" 2007 and the second "Drug Delivery in Dermatology" 2018. She holds several titles among them in the United States she holds the titles of Specialist in Laser and Dermatology by Harvard Medical School and in laser by Massachusetts General Hospital. Since 2011 Dr Campos works as assistant Clinical Professor, Department of Dermatology at University Jundiai.



## Federico E. Svarc

DQIAQF-INQUIMAE, Facultad de Ciencias Exactas y Naturales, CABA, Buenos Aires, Argentina

### Nanocarriers in cosmetics & skin care: A cosmetic chemist's point of view

Many papers and reviews have been published during the last 10 years about transdermal bioactive nanocarriers. Nevertheless, most of those publications have been directed towards medical and therapeutic applications, where it is necessary to introduce drugs into the systemic circulation of mammals to reach specific sites, as cancerous cells or for imaging agents. Instead, few reports have been written about their usage in cosmetics. The author thinks that the reason has origin in the very definition of what a cosmetic is, the limitations that it imposes and the safety concerns. Thus, instead of bolstering penetration, nano-cosmetics try keep active molecules not farther the Stratum Basale or, at most, the dermis. A controlled release is suited both to increase bioavailability and, in some cases, to reduce irritation. Due to those reasons, the usual size of nano-compounds found in cosmetics should be tuned in the 50-300 nm range.

A short review of different types of the compounds used is presented, as well as their usual pathways for skin penetration. Some practical examples are given, both from research as from the literature.

The possibility to design nanocarriers able to reach specific targets and deliver different kind of substances in a controlled manner is changing the state of the art, opening new roads to the formulators and to the cosmetic industry.

#### Audience Take Away:

- Dermatologists will learn about the latest types of nanocarriers the cosmetic industry is using or exploring.
- Grasping the chemical mechanism that the different solutions propose helps to understand how the skin penetration and controlled delivery happens.
- Other faculty could retain some new ideas to design new types of nano carrier.
- These ideas should be introduced while teaching about skin treatments.
- The presentation should help formulators while they design new formulas.

#### Biography

Dr. Federico Svarc studied Chemistry at Buenos Aires University, Argentina, completing his Ph.D. in Physical Chemistry in 1992. He did research on raw materials at Compañía Química S.A. Then he joined L'Oréal Argentina, where he worked for 15 years occupying different positions in Production, QA, Product Development and Management. Afterwards held Management positions at Beiersdorf and fabriQUIMICA, till his retirement. Presently he received a contract from the Institute of Materials, Energy and Environment (INQUIMAE-Buenos Aires University) as Scientific & Technical Coordinator. He has published several research articles, a book chapter and participated as a speaker in many conferences. He has served as President of the Argentine Association of Cosmetic Chemists, affiliated to IFSCC.



**Ana I. Faustino-Rocha<sup>1,2,3\*</sup>, Paula A. Oliveira<sup>1,4</sup>, Rui M. Gil da Costa<sup>1, 5,6</sup>**

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<sup>6</sup>Postgraduate Programme in Adult Health (PPGSAD) and Tumour Biobank, Federal University of Maranhão (UFMA), São Luís, Brazil

## **Rodent models to study skin cancer: The case of K14HPV16 mice model**

Skin is the largest organ of the mammalian body, with significant functions in several biological processes, namely environmental barrier, tissue regeneration, hair cycling and wound repair. Skin is affected by several diseases, including cancer. Skin tumors are mainly of three types: malignant melanoma, basal cell carcinoma and squamous cell carcinoma. The incidence of both non-melanoma and melanoma skin cancers has increasing over the past decades, with 2 to 3 million non-melanoma skin cancers and 132,00 melanoma skin cancer occurring annually worldwide. Animal models are very useful to understand and follow several diseases, including skin cancer. In this way, *in vivo* studies are essential to improve and discover new strategies to prevent and treat this type of cancer. K14-HPV16 transgenic mice (HPV+) have inserted in their genome the early genomic region of HPV16. In these animals, the expression of the HPV16 early region is under the control of the cytokeratin-14 gene promoter, therefore targeting the basal cells of keratinized epithelia. These transgenic mice develop all the typical stages of HPV-induced multistep carcinogenesis in keratinized epithelia, as observed in humans. These K14-HPV16 transgenic mice present HPV16-induced lesions in different locations besides the uterine cervix, and advanced lesions were recently identified in head-and-neck sites. This presentation intends to describe the rodent models available for skin cancer study, particularly the model of K14-HPV16 transgenic mice, highlighting their advantages and disadvantages, as well as their potential in the evaluation of several drugs and natural compounds in skin cancer.

### **Biography**

Ana Faustino is Professor at Department of Zootechnics of University of Évora and Researcher at CITAB/UTAD. She holds a Master in Veterinary Medicine and a European PhD in Veterinary Sciences. Animal models of cancer, tumoral angiogenesis and imaging are her main areas of interest. She has collaborating in several Financed Research projects. The results of her works were published in more than 250 publications in several formats. She received several prizes of scientific merit, and highlights and press honors. She has experience in supervising graduate and post-graduate students. She participated in several courses, workshops, international and national meetings. She is editorial member of several scientific journals and reviewer of more than 300 manuscripts. She is Guest Editor of two special issues in *Veterinary Animals* and in *Life*.



## Vaishnavi S

Department of Dermatology, JJMMC Davanagere, Karnataka, India

### Griscelli Syndrome : A rare case report

**G**riscelli syndrome is a rare autosomal recessive disorder that results in pigmentary dilution of the skin and the hair (silver hair) with the presence of large clumps of pigment in hair shafts, and an accumulation of melanosomes in melanocytes. Three variants of disease have been found based on genetic mutations. MYO5A, RAB27A and MLPH are the genes mutated leading to Griscelli syndrome type 1, 2 and 3 respectively. Griscelli syndrome type 2 is the most common and if untreated leads to most severe presentation. Internationally there are 150 cases have been reported. Here we describe 5 year old male child who had recurrent infections, silvery grey hair with features of hemophagocytic lymphohistiocytosis without any features of psychomotor retardation. Child had pallor, silvery grey hairs, eyebrows and eyelashes. Child had white colored multiple patches over left part of abdomen which appeared post homeotherapy. Child had hepatomegaly of 7cms and splenomegaly of 10cms. Microscopic hair examination showed irregular clumps of melanin pigment along the shaft. Routine blood investigations revealed pancytopenia. Peripheral blood smear showed Microcytic hypochromic anemia without any giant cytoplasmic granules in leucocytes. Child had increased serum ferritin levels (>1650ng/ml) with hypertriglyceridemia (286mg/dl).

As a part of treatment to control acute infection IVIG was given and the patient's condition was improved. Following which patient was started on Cyclosporine along with daily dose of steroids. Supportive therapy was given (blood products). Parents were counselled regarding the condition of the patient As the patient needs hematopoietic stem cell transplantation .

#### Audience Take Away:

- At the end of the presentation the audience will gain knowledge about the clinical aspects, diagnosis and treatment of Griscelli syndrome.
- Hence, in future they might pick up the diagnosis of the case easily.
- With this , other faculty could expand their teaching.

#### Biography

Dr. Vaishnavi S studied MBBS at ESICMC & PGIMS, Bangalore, and graduated as MBBS in 2019. She then joined JJM Medical College at Davanagere, Karnataka for pursuing MD in Dermatology. She has published about 4 research articles in SCI(E) journals and has about 6 presentations in State and National conferences.



## Amir mohammad beyzaee

Mazandaran University of Medical Sciences, Iran

### Comparative efficacy of fractional CO<sub>2</sub> laser and q-switched Nd:YAG laser in combination therapy with Tranexamic acid in refractory Melasma: results of a prospective clinical trial

**M**elasma manifests as hyperpigmented macules and patches, usually affecting the face, neck, and rarely upper limbs. This study evaluated comparative efficacy of a fractional CO<sub>2</sub> laser with a Q-Switched Nd:YAG laser in combination therapy with tranexamic acid in refractory melasma. A total of 30 patients with refractory melasma were included in this study. The fractional CO<sub>2</sub> laser (power: 30 w, pulse energy: 30 mJ, tip type: 300, pulse rate: 100/cm<sup>2</sup>) was used on one side of the patients' face and three passes of the Q-Switched Nd:YAG (QSNY) laser (Wavelength: 1064 nm, pulse energy: 750 mJ, fluence: 1.50 J/cm<sup>2</sup>, spot size: 4 mm × 4 mm, hand piece: fractional) were used on the opposite side of the same patient's face for six sessions. During the course of laser therapy, all patients received oral tranexamic acid 250 mg twice daily. Melasma area and severity index (MASI) score and physician's satisfaction and patient's satisfaction were analyzed. Thirty patients (mean age 39.97) were included. Patient global assessment (PtGA) in the fractional CO<sub>2</sub> laser group was significantly better than the Q-Switched Nd:YAG laser group at 4th, 8th and 12th weeks (p-value < 0.001). According to PtGA, the improvement was significant in both groups over time. Physician global assessment (PGA) at the 8th and 12th weeks, and physician satisfaction (PS) at the 8th week, in the fractional CO<sub>2</sub> laser group was significantly better than the Q-Switched Nd:YAG laser group (p-value < 0.05). The PGA in both groups significantly reduced over time. The MASI score significantly decreased in both groups over time. The MASI score in the fractional CO<sub>2</sub> laser group decreased more than the Q-Switched Nd:YAG laser group over time (p < 0.001). The most common side effects reported were erythema and discomfort, which subsided in less than 24 h. A fractional CO<sub>2</sub> laser with oral tranexamic acid is an effective and well tolerated therapeutic method for the treatment of patients with refractory melasma.

#### Biography

I am Dr Amir Mohammad Beyzaee. I am a GP, graduated from Mazandaran University of medical sciences. I have been working in dermatology field for the last 3 years. Also, i have made efforts in researching, writing review articles, clinical trials, and peer-reviewing the articles.



## Sitaula Seema<sup>1\*</sup>, Sharma Nisha<sup>2</sup>

<sup>1</sup>Department of Dermatology, IOM, TUTH, Kathmandu, Nepal

<sup>2</sup>Department of Pathology, IOM, TUTH, Kathmandu, Nepal

### Efficacy and Safety of platelet rich plasma therapy in Melasma using Microinjections and Microneedling

**M**elasma is a cosmetically disfiguring acquired hyperpigmented skin disorder. Many treatment modalities are being used and many are under trials for the treatment. No single treatment option has been associated with improvement and complete cure of the disease. Frequent relapses and recurrences are common.

This study has evaluated the efficacy of Platelet Rich Plasma therapy (PRP) as an upcoming treatment modality both as an independent or as an adjuvant therapy for the treatment of recalcitrant hyper pigmentary disorder. The objective of the study was to compare the therapeutic efficacy and safety of PRP microinjections versus PRP with microneedling in melasma.

This was a prospective, randomized, open label study with a sample size of 64. 32 patients in each treatment arms. Thirty-two patients were given microinjections of PRP in one arm, and in the other arm 32 patients underwent microneedling after topical application of PRP. The procedure was done after topical anesthesia application for 30 minutes. The session was repeated every month for a total of 3 sessions. The evaluation was done at the end of one month after the last session.

To assess the clinical response, clinical photographs were taken at the beginning of the therapy and then serially. MASI scoring, physician global assessment (PGA), and patient global assessment (PtGA) were performed at monthly intervals and any adverse events and complications were recorded.

Amongst the patients treated, there was 42.64% improvement in the MASI score in the microinjections group. In the micro needling group, the improvement seen was 63.18% at the end of third follow-up visit. No major adverse events were observed in both the treatment groups.

The study concluded has PRP can be a safer, economical and an efficient adjuvant in the treatment of melasma. The efficacy from our study was higher in the group with microneedling, probably because of the deeper penetration of the medication and delivery of plasma through the channels made with microneedling.

#### Audience Take Away:

- I will be talking about the preparation of PRP and the techniques. The audience can practice different techniques of PRP administration in an appropriate manner.
- As practising dermatologists, all of us are aware about the difficulties while treating cases of melasma, about the patient's dissatisfaction and the problem with recurrences. With PRP in hand, and the effective modality of delivery, we can maintain the results of melasma for long without major side effects.
- The economical burden to the patients will be less.
- The treatment approach can also be taught to the medical residents in dermatology as an adjuvant in the therapy of melasma.
- Multiple researches in a larger scale can be done so that this modality of treatment can be incorporated in medical text book.

#### Biography

Dr. Seema completed MD Dermatology from Tribhuvan University Teaching Hospital, Institute of Medicine, Kathmandu in 2017. She then joined Fellowship in Antiaging, Metabolic and Regenerative Medicine from Metabolic Medicine Institute, A4M, USA, she is currently a fellow. She has done her aesthetic fellowship from Aakar Medical Institute, Mumbai, India. She is currently an Assistant Professor in Department of Dermatology, Tribhuvan University Teaching Hospital, Institute of Medicine, Nepal. She is founder of Face Forward Anti-Aging Clinic, Kathmandu, Nepal. She has published research articles in PubMed indexed journals.

## Huda Alabdullah

Aleppo University Hospital, Aleppo, Syria

### The management of dermal filler complications

**I**njectable fillers have gained widespread acceptance among the public and provide a nonsurgical means of rejuvenating the face. As the demand for fillers increases, facial plastic surgeons must become not only expert injectors but also experts in managing the complications of fillers. Little scientific data exists regarding the incidence of complications, and more adverse effects may be seen with longer-term follow-up of patients. The purpose of this lecture is to review the most commonly encountered complications and management thereof.

#### Audience Take Away:

- The purpose of this participation is to provide the aesthetic clinician with practical recommendations regarding complication diagnosis arising as a consequence of hyaluronic acid filler rejuvenation treatment. It also provides recommendations for their management using step-wise treatment algorithms that are based on published expert opinions.
- Adverse events can be alternatively sub-classified by timing of onset. Early-onset complications occur hours to days after injection, and include site reactions, hypersensitivity, infection, Tyndall effect, surface irregularities & nodules, vascular occlusion, and embolic phenomena. Symptoms of site reactions include edema, pain, erythema, ecchymosis, and itching. Types of infections that may occur include herpes simplex virus, abscess, cellulitis, or mycobacterial infection.
- Late complications are defined as those appearing after about 2-6 weeks. They comprise late allergic reactions, chronic inflammation and infection, granulomas, filler migration, loss of function, telangiectasia, and hypertrophic scars.
- As filler complications are real risks when using dermal fillers. The lecture will show how to reduce the likelihood of complications by sticking to safe filler planes, how to recognize emerging complications and also how to manage them with confidence.

#### Biography

Dr. Huda studied Medicine at the Aleppo University, Syria and graduated as MD in 2017. Then she joined the Aleppo University Hospital to her Master degree at Dermatology and STD in 2022 at the same Hospital.

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*We wish to meet you  
again at our upcoming conference*

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