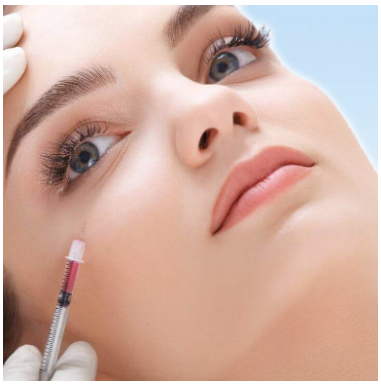
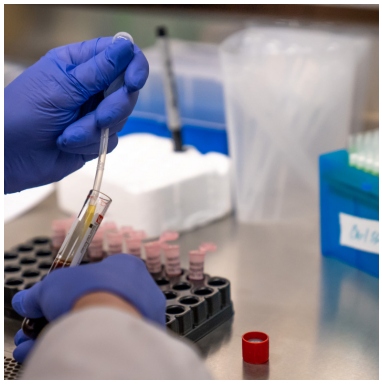
Scientific Tracks & Sessions
March 11-12, 2019

Cosmetics 2019 & Biomarkers 2019







Joint Event

International Conference on

Plastic and Cosmetic Surgery

&

International Conference on

Biomarkers

March 11-12, 2019 | London, UK

Safety evaluation of VASER® in liposuction surgery for body contouring improvement

Felipe Massignan
Advanced Nucleus in Plastic Surgery, Brazil

Statement of the Problem: Historically, many approaches have been used to remove adipose tissue during liposuction. Throughout the natural refinement process, improvements were achieved by refining various aspects of the procedure, such as surgical technique, cannulas and the use of adjuvant devices. In this aspect, it is a walk without a finish line. There are no definitive goals, only goals to overcome. Traditional liposuction still faces the problem of being often a strenuous procedure and considered by some surgeons with as a technique without much refinement. In this sense, any initiative capable of generating load reduction and mechanical stress is a potential optimizer of results. The third-generation ultrasonic device VASER® (vibration amplification of sound energy at resonance), is intended to bring greater safety and satisfactory results, especially in the quest for higher definition and superficial liposuction.

Methodology & Theoretical Orientation: A retrospective study was performed by analyzing the medical records of patients who underwent liposuction procedure to improve body contour with the aid of VASER®, from January 2015 to June 2017, at Santa Mônica Hospital Center in Erechim, Rio Grande do Sul. Surgical complications were evaluated and compared with the available medical literature.

Conclusion & Significance: The medical literature, as well as our analysis, seems to demonstrate that the use of VASER® in liposuction procedures for improving body contouring presents as a safe approach with low rates of complications. The potential risks of using an ultrasonic device, such as overheating leading to tissue ischemia, are mostly believed as result of inappropriate device use.

Speaker Biography

Felipe Massignan is a plastic surgeon member of Sociedade Brasileira de Cirurgia Plástica (SBCP) and American Society of Plastic Surgeons (ASPS). He is an enthusiastic medical doctor in his expertise, adding current technical concepts with artistic skills that have been developed since the beginning of his career. He especially distinguishes himself in body contouring plastic surgeries. He has been seeking to improve his professional development in major centers around the world. Currently, he has virtually become a reference in his field by using ultrasound liposuction in high definition.

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Dual assisted liposculpture: Combination of laser lipolysis and nutational infrasonic liposuction

Juan Tadeo Krogulec
Medcare Women and Children Hospital, UAE

Liposuction is one of the most popular aesthetic operations in the world and the most demanded aesthetic surgery in the Middle East region. One of the major challenges for the plastic surgeon during the liposculpture process is skin laxity. It is well known that the Laser Lipolysis during the liposculpture procedure can improve the skin retraction in well selected patients. The use of the Power Assisted liposuction devices which provide the Nutational Movement of the cannula facilitates the destruction of the adipose deposits and stimulates skin retraction, as well. We describe a different approach for assisted liposuction that combines two devices: Laser Assisted and Power Assisted liposuction device which uses the Nutational Movement of the cannula. A total number of twenty-seven patients, with mild skin flaccidity, who underwent liposculpture, were treated with the specific method. After tumescent infiltration of the areas to be treated, the lipolysis was made using the Nd: YAG 1064 nm laser device. Then the liposuction was performed immediately after with the Power Assisted (Infrasonic) liposuction device. The procedures where performed under general or local anesthesia. The removed fat volumes ranged from 500ml to 5800ml. No fat grafting was performed. No major complications incurred. We think that the Dual Assisted Liposculpture is an efficient and safe procedure which can give a reliable reduction of the localized adiposity, generating at the same time enough skin retraction to obtain an aesthetically correct and pleasing shape and contour.

Speaker Biography

Juan Tadeo Krogulec is Plastic and Reconstructive Surgery Specialist and he attained his medical degree at the Cordoba National University in Argentina, and his General Surgery training in the National Clinics Hospital of Cordoba in Argentina as well. Afterward, he started on his Plastic Surgery Post Grade of the Cordoba National University. He has worked in Cordoba, Argentina as Specialist Plastic Surgeon and Medical Director of renamed surgical center and he has moved to Dubai in 2012, where he has been working successfully as Plastic Surgeon and Medical Director in one of Top healthcare facility in all UAE. Juan Tadeo Krogulec is an active member of many prestigious Societies like American Academy of Cosmetic Surgery (AACS), International Society of Plastic & Regenerative Surgeons (ISPRES), Emirates Plastic Surgery Society (EPSS) and International Society of Hair Restoration Surgery (ISHRS) and he has participated in numerous conferences and scientific meetings.

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Breast augmentation, 7 pearls that improved my practice

Marcelo Uriarte Mayorga
Dr Marcelo Uriarte Plastic Surgery Clinic, Bolivia

Breast augmentation is the most common aesthetic procedure performed in women according to the American Society of Aesthetic Plastic Surgeons, and nowadays remains as the most challenging surgery not only to get the most pleasing results but to get the most natural results. The author discusses seven tips that improved his work in the field of breast augmentation and will help other surgeons to get more control in of this surgery, from planning the surgery, implant decision, brand decision, placement of incision, choose the correct pocket, we discuss what makes our surgery successful and fully predictable. The author considers that every step during planning until executing must be carefully planned not only to get an easy surgical plan but to get a quick surgery with less manipulation and trauma that also will help the patient to get a faster recovery without dealing with the common complications of this surgery.

Speaker Biography

Marcelo Uriarte Mayorga is a Plastic and Aesthetic Surgeon located in La Paz, Bolivia, he trained with Dr. Guerrerosantos in Guadalajara Mexico, and is a member of the Bolivia Society of Plastic Surgeons, International member of ASPS and ASAPS, active member of ISAPS, active member of FILACP and fellow of the American College of Surgeons.

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Full thickness eyelid reconstruction

Lea Mogilnicki
Novo Mesto GH, Slovenia

Eyelid anatomically consists of anterior and posterior lamellae. Every lamella has its own function and should be reconstructed separately and in layers. Anterior lamella consists of skin and muscle, posterior lamella of tarsal plate and of conjunctiva. Anterior lamella is what you see first. The skin should match surrounding skin considering texture and color. For reconstruction you should follow relaxed skin tension lines for best cosmetic result. I will show some advantages of flaps over free grafts. Posterior lamella supports the lid and helps with closure of the lid aperture. After excision a lid margin you should reconstruct both lid lamellae. For reconstruction of posterior lamella you can use tarsal plate or cartilage. One can take cartilage from ear conchae, nasal septum or you can take hard palate graft. I will show the possibilities of tarsal grafts and explain the reasons for decisions, considering the position and the size of a tumor. With those graft you can achieve lid stability and prevent lid malposition like ectropion or entropion.

Speaker Biography

Lea Mogilnicki has finished ophthalmology residency with international EBO exam of excellences in Paris, France in May 2011. Since then she keeps educating in the field of esthetic medicine and oculoplastic surgery. She has private practice in esthetic and work in GH as reconstructive oculoplastic surgeon. She has attended several international congresses and in 2017 she won best poster on field of oculoplastic at SOE congress in Barcelona.

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Decreased circulating mitochondrial DNA copy number in patients with multiple sclerosis: A potential blood-based biomarker

Ghada Al Kafaji, Hala Bakheit, Ahmad Alsayed Farahat and **Moiz Bakhiet**
Arabian Gulf University, Bahrain

Multiple sclerosis (MS) is a chronic immune-mediated disease of the central nervous system, characterized by neuroinflammation and neurodegeneration with demyelination and neuroaxonal loss. At present, there is no cure for MS and the validation of biomarkers can improve disease diagnosis and clinical outcome. Growing evidence suggests that mitochondrial dysfunction is associated with the pathogenicity of MS. In addition, maintaining mitochondrial DNA (mtDNA) copy number, which is a surrogate measure of mitochondrial function, is important for preserving mitochondrial activity.

In this study, we investigated changes in mtDNA copy number in the peripheral blood of patients with relapsing-remitting MS (RRMS) and healthy individuals to evaluate the feasibility of mtDNA copy number as a biomarker for MS.

The mtDNA copy number was quantified as the DNA ratio between a target mitochondrial gene and a reference nuclear gene (mtDNA/nDNA) in blood samples from 46 RRMS patients and 47 healthy controls using real-time polymerase chain reaction (PCR).

Patients with RRMS showed a significant decrease in peripheral blood mtDNA (59.23±7.2) compared to controls (75.34±9.4), ($P<0.001$). In multivariant regression analysis, the decreased mtDNA copy number was significantly associated with the presence of MS (odds ratio [OR]: 0.861; confidence interval [CI]: 0.803-0.924; $P<0.001$). Receiver operating characteristic curve analysis revealed a significant ability of peripheral blood mtDNA copy number to distinguish RRMS patients from controls with an area under the curve (AUC) of 0.859 (CI: 0.785-0.933; $P<0.001$).

To the best of our knowledge, this is the first study to show the utility of circulating mtDNA copy number in the peripheral blood as a non-invasive biomarker for early detection of MS, which can offer a clinical applicability over other invasive biomarkers. Our results also suggest that the decreased peripheral blood mtDNA copy number is a consequence of impaired mitochondrial function, which is an early event in MS.

Speaker Biography

Ghada Al Kafaji is an associate professor of molecular genetics in the department of molecular medicine and Al-Jawahar centre for molecular medicine, genetics and inherited disorder, and the director of personalized medicine master program in the college of medicine, Arabian Gulf University, Bahrain. She obtained her MSc degree in molecular biology from Baghdad University in Iraq and her PhD degree in molecular genetics from King's college London, University of London, UK. Following her PhD, she worked in the UK as a postdoctoral research fellow at the school of medicine, King's college London, and as an assistant professor in molecular genetics at the college of science, University college Kensington. Currently, she is involved in lecturing and tutoring undergraduate and graduate students and supervising graduate theses. Her research interest includes genetic variations and novel biomarkers for cancer, diabetes and other complex diseases. She has abundant publications in the area of Molecular Genetics that have been cited over 350 times. She participated as an active member in many International Scientific Associations. She acted as a potential reviewer for many journals and received several certificates of excellence in reviewing scientific articles. She also received a number of awards for best presentations and outstanding work in regional and international conferences.

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Epitope-specific antibody profiling using novel multiplex immunoassay: A new generation of biomarker for food allergy

Mayte Suarez Farinas
Icahn School of Medicine at Mount Sinai, USA

Identification of allergenic IgE epitopes is instrumental for the advancement of diagnostic and prognostic tests for food allergy. We have developed a novel Bead-Based Epitope Assay (BBEA) that quantifies epitope-specific antibody binding (ESAB) for multiple epitopes in a large number of samples. We show that this assay had impressive reliability across replicates, high reproducibility across laboratories, and is more reliable and sensitive than current peptide microarray (MIA) technology. The potential of BBEA as new tool for diagnosis, prognosis and endotype discovery in peanut and milk allergy will be illustrated in three applications that use BBEA-based IgE and IgG4 binding to sequential allergenic epitopes.

Diagnosis of oral food challenges (OFC): Despite intense resource utilization and inherent risk, OFC remain the gold standard for clinical diagnosis of food allergy. Utilizing a cohort of 185 high-risk children from the CoFAR study, we determined their utility in predicting peanut allergy.

Prediction of allergy endotypes: Using BBEA profiles from 89 milk-allergic children who tolerated different forms of milk products we used machine learning methods to distinguish them into four endotypes: reactive to baked-, fermented-, or whole-milk, and outgrown. BBEA's performance was twice that of the serum component proteins (41.9%) in training, achieving a performance in the validation set (n=21) of 86%(AUC=0.89).

Prognosis in oral immunotherapy: Although recent clinical trials have shown that the majority of patients undergoing oral immunotherapy develop desensitization only half would achieve "sustained unresponsiveness" after therapy discontinuation. Using serum from 47 subjects prior to treatment, we show that epitope-specific IgE alone was more accurate in predicting sustained unresponsiveness than standard serum component proteins (average AUC of 97% vs 80%).

This work highlights the potential of BBEA biomarker discovery to develop precision medicine approaches to diagnose allergy, predict severity endotype, and screen patients who would receive the most benefit from oral immunotherapy.

Speaker Biography

Mayte Suarez Farinas, is currently an associate professor at the center for biostatistics and the department of genetics and genomics science of the Icahn school of medicine at Mount Sinai, New York. She received a master's in mathematics from the University of Havana, Cuba and in 2003, a PhD degree in quantitative analysis from the Pontifical Catholic University of Rio de Janeiro, Brazil. In the last three years she teams up with food allergy investigators at the Icahn School of Medicine at Mount Sinai and Allergenis to develop a high-throughput assay for epitope profiling and use it to develop precision medicine algorithms to diagnosis, endotype and response to immunotherapy in patients with milk and peanut allergy. She has over 140 publications that have been cited in over 4000 articles, with an H-index of 44 and has been serving as reviewer of reputed journals and grant funding agencies.

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AMCAR combined with PSA as prognosis biomarker to improve the prediction of prostate cancer progression

Shian Ying Sung, Yen Kuan Lin and **Yun Yen**
Taipei Medical University, Taiwan

Serum samples offer unique opportunities for early diagnosis of clinical conditions. Previously reports indicated the combination of serum biomarkers improve the precision detection of cancer progression, include prostate cancer. Currently, standard detection of serum proteins purely based on the technology of antigen and antibody interaction. Therefore, the precision of serum markers was determined by the quality of antibodies. Here, we show that detection of enzyme activities of AMCAR, the original biological function of serum biomarkers, provides a better accuracy and precision of diagnosis and prognosis prediction. Prostate cancer patient serum was used to compare the accuracy of PSA with or without enzyme activities as the biomarker. Electrochemical platform prototype was used for the AMCAR testing. AMCAR electrochemical enzyme system showed higher of specificity when compared to clinical PSA data. The specificity of AMCAR is 53% in average. The specificity of PSA is 40% in average. In addition, accuracy of AMCAR is higher than PSA alone, in which they are 52.7% and 51% of accuracy, respectively. In addition, the combination of PSA and AMCAR showed more than 70% in accuracy. When we combine PSA, fPSA/PSA and AMCAR, the accuracy reached to the 76% in average, suggested the important to use the combination testing for future platform development. The results indicated with the combination of enzyme activities we could increase the accuracy to detect prostate cancer when compared PSA only. In conclusion, our results highlight the medically relevant potential of determining enzyme activities in cancer patient serum and possibly other body fluids. Thus, proteins biological function rather serum concentration is a new class of liquid biopsy that promise to serve as useful clinical biomarkers.

Speaker Biography

Shian Ying Sung has completed his PhD from Virginia Commonwealth University, USA in 2000. He then went to Emory University as young investigator and instructors. He is the director of Joint Clinical Research Center and associate professor of The PhD Program for Translational Medicine, Taipei Medical University, Taipei, Taiwan. His lab has expertise and extensive experience in 3D modeling of tumor and microenvironment interaction. His publications are in outstanding journals and has been working on prostate cancer tumor microenvironment for over 18 years. Currently, there are 3 to 4 international collaborations ongoing, includes Kobe University, Cedars Sinai Medical Center, Case Western Reserve University and University of Malaya. He is currently the chair of Regional Asia Clinical Trial Association (REACTA) and hosting the REACTA annual Meeting in Taipei.

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Sirtuin1 deacetylated and stabilized DNA damage repair (XRCC1) to promote chemoresistance in cancer

Neelum Aziz Yousafzai, Hongchuan Jin and **Xian Wang**
Medical School of Zhejiang University, China

Chemoresistance is one of the most important challenges in the clinical management of lung cancer. SIRT1 is a NAD dependent protein deacetylase and implicated in diverse cellular processes such as DNA damage repair, and cancer progression. SIRT1 is upregulated in chemo resistant lung cancer cells, genetic knockdown or chemical inhibition of SIRT1 reversed chemoresistance by enhancing DNA damage and apoptosis activation, accompanied with XRCC1 degradation. E3 ligase β-TrCP catalyzed the poly-ubiquitination of XRCC1 to promote its proteasome-dependent degradation. SIRT1 bound and deacetylated XRCC1 at lysine K260, K298 and K431, preventing it from β-TrCP-dependent ubiquitination. Mutations of these three lysine sites in XRCC1 abrogated the interaction with β-TrCP and prolonged the half-life of XRCC1 protein. Here we describe SIRT1 confers chemoresistance to lung cancer cells by deacetylating and stabilizing XRCC1. Therefore, targeting SIRT1 might be a new strategy to manage the chemoresistance of lung cancer, and probably other cancers.

Speaker Biography

Neelum Aziz Yousafzai has completed her PhD in Oncology from Zhejiang University, China. Her expertise in cancer diagnosis and therapy development approaches to improving human health. Her open and contextual evaluation model based on responsive constructivists creates new pathways for improving healthcare. She has great experience in research, clinical, teaching and administration, both in hospital and education institutions. She has published several research articles in well-known journals and delivered talks on national and international forum. Her areas of interest are oncology, molecular biology, immunology, biotechnology, pathology and genetics.

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