

# DENTAL TRIBUNE

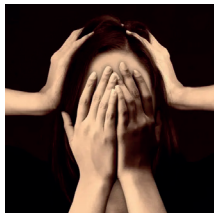
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## ROLE OF STRESS

Stress, intestinal barrier disruption, and autoimmune diseases

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## ANTHROBOTS

Tiny robots made from your cells can repair neural tissues

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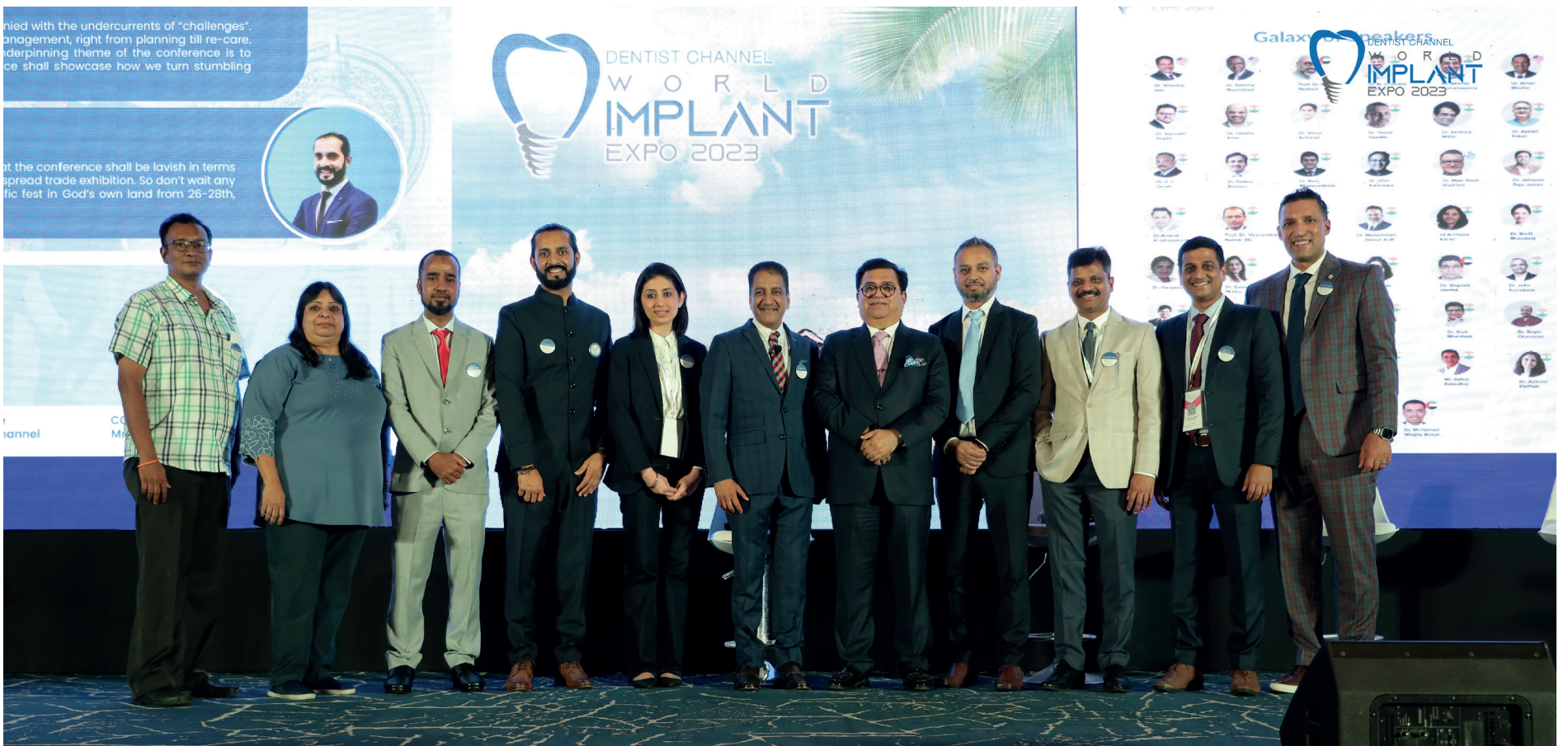


## DENTAL TRAUMA

"Dental trauma management is not a one-size-fits-all process"

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## Implant Expo 2023: Transforming implant failures to successful outcomes



The Conference Organizing Committee with the speakers of the first session. From right to left, Dr Aman Bhullar (Speaker), Dr Akshay Kumaraswamy (Speaker), Dr N Chandrasekhar (Speaker), Dr Hardee Patel (Speaker), Dr Mahesh Verma (The Patron, World Implant Expo), Dr Shankar Iyer (Chairman, World Implant Expo), Dr Aditi Nanda (Chair, Scientific Committee, World Implant Expo), Mr. Melvin Mendoca (CEO, Dentist Channel Online), Mr Abubacker Siddique (Chief Operating Officer, Dentist Channel Online), Ms Arlene (Administrative Executive, Smile USA®), Mr Balaji Subramaniam (Administrative Executive, Smile USA®)

By Dr Rajeev Chitguppi  
Dental Tribune South Asia

The World Implant Expo (WIE) 2023—a global event designed by pioneers in implantology, brought implantologists together to help them improve their skills and knowledge in implant practice. The Expo, held on 26–28 November 2023 in Kochi, was designed with a specific focus on the critical topic

of strategies to transform implant failures into successful outcomes.

The World Implant Expo 2023 was the synergistic outcome of scientific partner, Smile USA & the corporate enterprise, Dentist Channel Online. The conference,

Chaired by Dr Shankar Iyer, showed the commitment of dentists to render pragmatic, purely scientific solutions to implant complications, in the most unbiased manner. The other members of the organizing team comprised, Prof. (Dr) Mahesh

Verma (The patron), Dr Aditi Nanda (Chair, scientific committee), Mr Melvin Mendoca (Chief executive officer), and Mr Siddique (Chief operating officer). The strength of the conference was the specially curated scientific

sessions on the various specialties related to implant dentistry. With almost 40 speakers from various countries like India, the USA, Egypt, Greece, and the UAE, the conference stands out as the sole scientific event in the prevailing



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An enthralling panel discussion conducted by Dr Shankar Iyer and the speakers. From right to left, Dr Aman Bhullar (Speaker), Dr Akshay Kumaraswamy (Speaker), Dr N Chandrasekhar (Speaker), Dr Hardee Patel (Speaker), Dr Shankar Iyer (Moderator).



An ongoing workshop with hands-on. Mentors, Dr Valaditis and Mr Papanokolous from Greece.





An ongoing workshop with hands-on. Mentors, Dr. PC Jacob and Dr Anne.



Conference Pic 10.

times, that focuses on the critical topic of dental implant complications. The unrestricted sharing of information among the delegates

and presenters contributed to a smooth exchange of knowledge and experiences for over 400 dental implant practitioners from diverse backgrounds and nations.



Appreciation of the exhibitors by the organizing committee.

Speakers dwelled on subjects related to bone & gum issues, material science, crown, bridge, & dentures used in the rehabilitation of dental implants, and digital technology that has been revamping the landscape of implant care. The scientific deliberations comprised podium lectures, table clinics, hands-on workshops & exciting panel discussions, all adding immensely to knowledge and skill set. The delegates and participants from various cities of India, Sri Lanka, Bangladesh, UAE, Canada, and the USA took back volumes of information on implant care. Aside from the podium lectures, the conference gave a chance for the attendees to improvise on their surgical and prosthetic dexterity, as well as gain distinct diagnostic perspectives through

15 well-conducted hands-on and interactive workshops. Each of the workshops was led by dedicated mentors who showed utmost commitment to teaching the participants on numerous aspects of implantology. The conference also ensured that the practitioners were provided with many options for implant-related materials and inventory. The organizing committee left no stone unturned and ensured the best commercial product lineup for the attendees to bridge the chasm between the knowledge gained and practical execution. The representatives of nearly 40 commercial sponsors showed unwavering commitment to join hands with the implant practitioners as they braved the adverse weather conditions on all 3 days! Aside from this, the

Organisers also arranged for a dedicated Lab day, where in a field tour to India's largest dental Lab., Dentcare was arranged. The participants gained deep insights into various nuances of Laboratory support for not just implants but entire dentistry in a well-organized tour!

The conference also set the stage for aspiring implant dentists to showcase their innovations and solutions to challenges in implant care and service. Nearly 8 postgraduate colleges participated in a poster competition. The best posters were awarded to 3 participants out of the 21 posters presented. Winners belonged to Amritha Institute of Medical Sciences, All India Institute of Medical Sciences, and Maulana Azad Institute of Dental Sciences. The immeasurable impact of the conference is evident in the extensive outreach across the shores of India as well as the diverse generations of dentists and implant practitioners. With the whole being greater than the sum of the parts, it is safe to say that the conference accomplished several scientific goals through the lavish spread of scientific exhibits in the year 2023, and lived up well to the aptly thought name of "World Implant Expo 2023".

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# Stress, intestinal barrier disruption, and autoimmune diseases



The role of intestinal barrier and dysbiosis in autoimmune diseases has been expanding over the years. (Image: Canva)

By Dr Geetpriya Kaur

At least 50% of the onset of autoimmune diseases is attributed to unknown causes.<sup>(1)</sup> Many retrospective studies have shown that most autoimmune disease patients have negative anxiety symptoms before the onset of the disease.<sup>(2)</sup> Selye first described stress in 1936 as a real (physical) or perceived (psychological) threat to homeostasis to which the body must respond with adaptive responses.<sup>(3)</sup> Epidemiological studies reveal that stress can cause and worsen autoimmune diseases. This is a vicious cycle as autoimmune disease can cause stress in patients.<sup>(4,5)</sup>

## Psychological stress alters the intestinal barrier

Mental illness can alter the digestive system to respond differently. Stress may cause microbiome dysbiosis, intestinal hyperpermeability, and intestinal inflammation. Therefore, all these elements of the intestinal barrier interact with each other as well as alter each other. Microbiota dysbiosis is responsible for intestinal hyperpermeability and inflammation; alternatively, intestinal hyperpermeability and intestinal inflammation can result in microbiota dysbiosis. Finally, stress can also cause autoimmune diseases in the body.<sup>(1)</sup>

## A. Effect of intestinal microbiota dysbiosis on autoimmune diseases

Research on the connection between gut microbiota dysbiosis and autoimmune illnesses is ongoing, and while the precise processes behind this association

are still being worked out, some broad conclusions have been drawn.<sup>(1)</sup>

### 1 Regulation of immune tolerance

Intestinal microbiota plays a crucial role in the development and regulation of the immune system. A balanced microbiome helps the immune system distinguish between harmless agents and harmful invaders. Dysbiosis can upset the balance and cause the body to respond inappropriately to self-antigens.<sup>(6)</sup>

### 2. Influence on T Regulatory Cells (Tregs)

Tregs are a part of the immune system that plays an important role in preventing autoimmunity by preventing excessive immune responses. The gut microbiota is known to influence the development and function of Tregs. Dysbiosis may promote autoimmune processes by altering the balance between regulatory and immune responses.<sup>(7)</sup>

### 3. Mucosal barrier integrity

The gut microbiota helps to maintain the integrity of the intestinal mucosal barrier. Dysbiosis disrupts the barrier function, causing increased permeability and translocation of bacteria products into the blood. This phenomenon is often called "collapse" and is associated with autoimmune diseases.<sup>(8)</sup>

### 4. Molecular mimicry

Some components of the gut microbiota show similar patterns as other tissues. In cases of dysbiosis, the immune system can produce antibodies against

microbial antigens that interact with the tissues, leading to an autoimmune response. This concept is known as molecular mimicry.<sup>(9)</sup>

### 5. Short-chain fatty acids (SCFAs)

The gut microbiota produces metabolites, including short-chain fatty acids, through the fermentation of dietary fiber. SCFAs have immunomodulatory effects and help maintain the balance between the immune response and the immune system. Dysbiosis can modify the synthesis of these metabolites, thus affecting the immune system.<sup>(10)</sup>

### B. Effect of intestinal hyperpermeability on autoimmune diseases

In autoimmune diseases, intestinal hyperpermeability has been described, resulting in an increased entry of luminal antigens derived from food and/or intestinal microbiota or pathogens. The associated inflammation has been suggested to participate in autoimmune disease onset and/or exacerbation.<sup>(1)</sup>

### C. Effect of intestinal inflammation on autoimmune diseases

Stress may contribute to inflammation through various pathways. It can enhance the production of pro-inflammatory cytokines and modulate immune cell activity. In the context of autoimmune diseases, this heightened inflammation may exacerbate existing immune responses against self-antigens.<sup>(1)</sup>

Following are the autoimmune diseases affected by the stress and intestinal disruption:

#### 1. Type 1 Diabetes (T1D)

T1D is related to microbial dysbiosis, intestinal hyperpermeability, expanded IL-17 emissions in the intestine and at a systemic level, and expanded myeloperoxidase (MPO) within the digestive tract. Thus, colonization by a complex microbiota is defensive from T1D.<sup>(1)</sup>

#### 2. Systemic Lupus Erythematosus (SLE)

SLE is linked with microbiota dysbiosis and increased production at the intestinal level of IL-17 and IL-22 by T cells as well as IFN- $\alpha$  and IFN- $\beta$  by dendritic cells. At the systemic level, there is increased emission of IL-6 and TNF- $\alpha$  by monocytes and macrophages in SLE. Hence, colonization by a complex microbiota is detrimental to the onset of SLE.<sup>(1)</sup>

#### 3. Multiple Sclerosis (MS)

MS is connected with microbiota dysbiosis, intestinal hyperpermeability, and increased production of IL-17 and IFN- $\gamma$  by T cells at the intestinal level. The increased number of innate lymphoid cells (ILC) was noticed in MS. Interestingly, colonization by a complex microbiota is deleterious for the onset of MS.<sup>(1)</sup>

## Conclusion

Stress is known to have long-term effects on the digestive system. Cross-sectional studies of autoimmune diseases, stress, and intestinal function might be useful

and provide new insights into the pathophysiology of autoimmune diseases. Identifying the causes of intestinal stress dysfunction as an important factor in autoimmune diseases may lead to new potential therapeutic targets, particularly strategies for preventing an autoimmune disease. Clinical strategies indicate that probiotic therapy and fecal microbiota transplantation (FMT) may improve symptoms of autoimmune diseases, but preventive strategies still need to be investigated in high-risk groups.<sup>(1)</sup>

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# Dental & engineering colleges sign MoU for research collaboration



Guru Nanak Institute of Dental Sciences & Research (GNIDSR), the first private dental college and hospital (2003) in West Bengal, which is Grade A accredited by NAAC (2022) has signed a formal collaboration agreement with the Indian Institute of Engineering Science and Technology (IEST), Shibpur. (Image: GNIDSR)

By Dr Rajeev Chitguppi  
Dental Tribune South Asia

Guru Nanak Institute of Dental Sciences & Research (GNIDSR), the first (2003) private dental college and hospital in West Bengal, and Grade A accredited by NAAC (2022) has signed a formal collaboration agreement with the Indian Institute of Engineering Science and Technology (IEST), Shibpur.

IEST is known as an institute for higher learning and advanced

research with a rich history since 1856. With a state-of-the-art multi-disciplinary research ambiance and innovative world-class technologies, IEST has produced some of the best research scholars, scientists, and entrepreneurs in the world.

GNIDSR and IEST signed a Memorandum of Understanding on 6 Dec 2023 to foster common academic and research interests among the students and faculty members in engineering and biosciences. This will include

undertaking joint research, conducting lecture sessions, joint consultancy work, exchange of faculty and students, participating in collaborative research, involvement in study tours, and more.

Both institutes sincerely look forward to imbibing and developing the research acumen of the students and faculty members of the institutes through some significant and rich scientific contributions.

Apart from IEST, Shibpur, GNIDSR had also signed an MoU earlier with IIT Kharagpur for advancing research.

GNIDSR Students can also avail International Exposure Program of the International Medical University, Kuala Lumpur, Malaysia.



GNIDSR & IEST MoU 1

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# Impart Edu celebrates 12 years with their first symposium

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Impart Education will be celebrating their 12th anniversary by organizing their first-ever symposium to be held in Mumbai in Jan 2024 (Image: Impart Edu)

By Dr Rajeev Chitguppi  
Dental Tribune South Asia

Dental Tribune South Asia interviewed Drs. Ali Tunkiwalla and Udatta Kher – the founders of Impart Education (IE) about their upcoming event “Shaping Dentistry: Current Trends and Insights” —IE’s first symposium to be held in Mumbai in January 2024.

**What’s the significance of the January 2024 event to be organized by IE?**

We’re marking 12 years of Impart Education, and to commemorate this milestone, we’ve organized a scientific event that features renowned international speakers alongside some of the finest minds and educators from India. With a track record of successfully training over 2000 dental practitioners globally, we aim to establish a platform that fosters a creative exchange of ideas among some of the world’s foremost clinicians, ensuring a rewarding experience for all participants.

**Awesome! Can you shed some light on how IE came into existence?**

It was a spontaneous decision. After being part of an informal study group, we organized ITI study club events for six years. Recognizing the need, we decided to establish an unbiased academy in India, aiming to propagate evidence-based education in a practical format beneficial for clinicians.

**Impressive journey! How has the experience been over the last 12 years?**

We started with a foundation-level course for beginners in implant dentistry and have organically expanded to include advanced implant surgery, full mouth rehabilitation, and advanced implant prosthodontics workshops. Over time, we’ve collaborated with like-minded

educators to cover subjects beyond our expertise.

**Could you elaborate on the upcoming Jan 2024 event’s main speakers?**

The symposium will be held on the 27-28 January 2024, with pre-conference courses taking place on the 26 January 2024. Each speaker, be it international or national, possesses the ability to captivate the audience for two full days. The symposium covers a diverse range of topics like implant dentistry, direct and indirect restorative dentistry, endodontics, regenerative surgery, and pediatric dentistry, catering to a broad spectrum of general dentists.

**Sounds comprehensive! Are there any pre-conference workshops?**

Absolutely. We have two noteworthy pre-conference workshops:

1. Ramon Gomez Meda: “Paradigm Shift in Immediate Implant Placements with Excellent Esthetic Outcomes.”
2. Luis Besa: “Esthetic Zone Management in Implant Dentistry.”

Both are extraordinary clinicians and educators.

## About the founders

Dr Udatta Kher, MDS (OMFS), a renowned implantologist, is the consultant Oral Surgeon and Implantologist to the Hon. Governor of Maharashtra. He has recently co-authored the book ‘Partial Extraction Therapy in Implant Dentistry.’

Dr Ali Tunkiwalla, MDS (Prosthodontics) is an accredited member of the American Academy of Cosmetic Dentistry. He has been a Fellow and Diplomate of ICOI & ISOI. He has also co-authored the book ‘Partial Extraction Therapy in Implant Dentistry’ with Dr. Udatta Kher.



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# ITI India Congress 2023 highlights current advances in implantology

By Dr Rajeev Chitguppi  
Dental Tribune South Asia

The ITI India Congress 2023, hosted by the ITI Leadership Team India and Straumann India at the Grand Sheraton, Bangalore on the 25-26 of November 2023, was attended by over 450 delegates from India and overseas.

## Inauguration

The event was inaugurated in traditional Indian style, with Dr Mohit Kheur, outgoing Chair, ITI Leadership Team India, welcoming the delegates. The inaugural address was given by Charlotte Stilwell, President of the ITI, who highlighted the purpose of the ITI, what the ITI has achieved around the globe over the last 40 years, and how India as a new and growing section could benefit from the ITI. The MC for the event was Dr Shilpa Shetty from Bangalore.

## Day 1



ITI India Congress 2023 was held in Nov 2023 in Bengaluru, India (Image: ITI India)

Geneva. Their lecture showcased different advances in transferring patient data to the lab using various virtual tools, photography techniques, and scanning scanners for the best replication of esthetics and form for full-mouth rehabilitation cases. They showcased the difference in the

The next lecture was by Holger Hadered, the Head of the Implantology Business, Straumann Holding AG. He introduced the audience to the various innovations of Straumann, especially the new TLX implant, introduced into the Indian market, which is an implant designed for immediacy with a tissue-level collar.

The first Indian speaker for the event was Dr. Abhay Lamba who spoke on Digital integration into Modern implantology. He showcased his work from planning to the surgical phase up to prosthetic rehabilitation using digital protocols.

Post a very sumptuous lunch, Dr. Algirdas Puisys from Lithuania, gave a very dynamic and highly appreciated lecture on immediate implant placement in the anterior zone. He showed how effectively the maxillary tuberosity tissues could be used as the graft material for cases in the anterior maxilla. He proposed a 4mm triangle for soft tissue in esthetic implant sites.

The last speaker for the day was the well-known and highly experienced Dr. Suvarna Nene, from Pune. She spoke about implant complications in the posterior maxilla and how to treat complications that arise in these sites.

Each session had a panel discussion answering questions from the audience, moderated by the organizing team members, and joined by members of the outgoing leadership team and past ITI scholars.

A poster presentation competition was held after the lecture session, with several postgraduates presenting their work on clinical and implant research. Trade stalls were also put up by several companies that deal with implant surgery-related products.

25th evening saw a gala party by Straumann where the Bangalore-based desi rock band Oxygen On The Rocks played till almost midnight. It was a great evening for socializing with

colleagues with drinks, dance, and dinner.

## Day 2

Day 2 started with a Face-Off session, where two speakers took different stances and debated on topics like Digital vs. conventional

need for planning the prosthetic positions of the crowns before attempting reconstruction. He demonstrated that the use of autogenous bone with the use of space-maintaining membranes was mandatory to achieve successful results while reconstructing large vertical defects.

The lecture that followed was again by Vincent Fehmer and Prof Irena Sailer continuing with Innovations In Prosthetic Materials And Latest Techniques. The program ended with a high-energy lecture on the long-term outcomes of complex implant rehabilitations by Dr. Vinay V Kumar. His lecture encompassed his work ranging from complex cases in the anterior esthetic zone to large full arch reconstructions and implant rehabilitations, to zygomatic implants and long-term outcomes using implants in reconstructed jaws.

The winners for the poster competitions were announced



ITI Conference Pic 1.



ITI Conference Pic 3.



ITI Conference Pic 2.



ITI Conference Pic 4.

The scientific session began with a lecture on Diagnostic and Treatment Planning advances in Implant Dentistry for Daily Practice, by the husband-and-wife couple, MDT Vincent Fehmer and Dr.med.dent. Irena Sailer. Vincent is a dental technician par excellence who works with the University of Geneva, and Irena is a Professor and Head of the Division of Prosthodontics, the University of

selection of different techniques such as veneered, micro-veneered, and monolithic restorations for esthetic restoration. The lecture highlighted the importance of abutment selection, crown-to-abutment cementation protocols, and the new cements that are best suited for each crown material. In total, there were many take-home points to have synchronization between clinics and the laboratory.

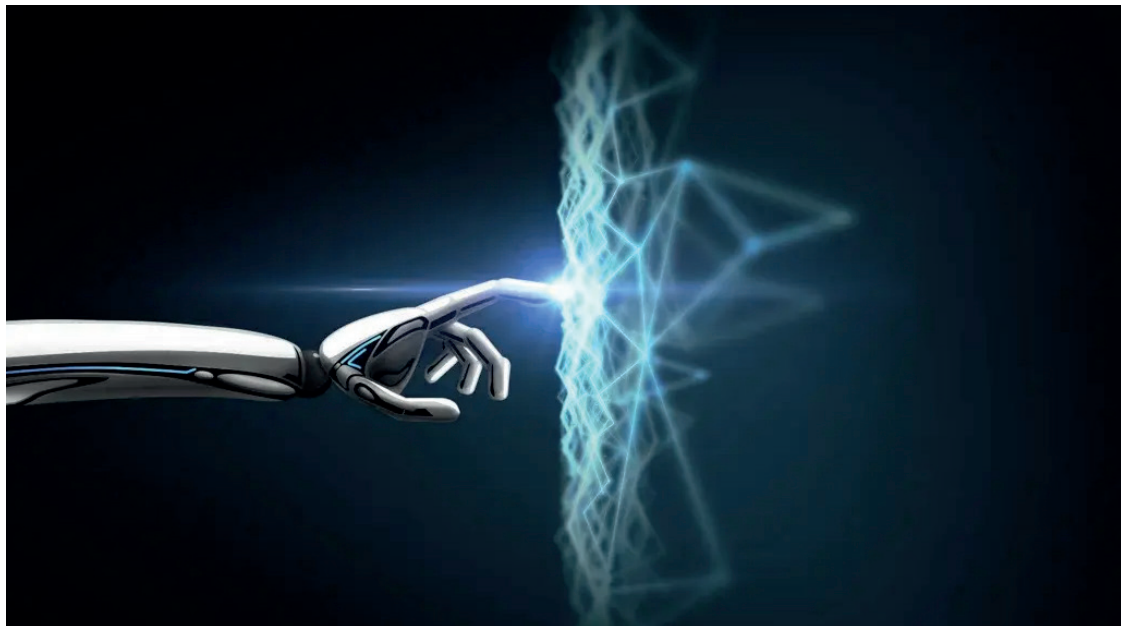
impressions for implants, new age or tried and tested prosthetic materials, and grafted solutions vs. remote anchorage for the posterior maxilla. This was followed by a much-awaited lecture by Prof Matteo Chiapasco, from the Unit of Oral Surgery, Department of Milan. Prof Chiapasco spoke on vertical ridge augmentation in esthetic and posterior sites. He emphasized the

with the first prize winners getting a free registration to the ITI World Symposium 2024 in Singapore. The program ended with a vote of thanks by Dr. Mohit Kheur.

On the whole, this was a fabulous two-day event for learning, socializing, and trade for both the national and international delegates.



# Tissue engineering 2.0: Anthrobots that can repair damaged neural tissues



Tissue engineering 2.0: Anthrobots to repair damaged tissues. (Image: Canva)

By Dr Rajeev Chitguppi  
Dental Tribune South Asia

Scientists have just unveiled a revolutionary breakthrough—Anthrobots—self-assembling tiny robots made from your own cells that can repair damaged neural tissues.

In a groundbreaking development, scientists have engineered miniature robots, referred to as 'anthrobots,' crafted from human cells capable of repairing damaged neural tissue. These anthrobots, created from human tracheal cells, represent a potential stride towards personalized medicine, as stated by Alex Hughes, a bioengineer at the University of Pennsylvania in Philadelphia, who views this research as paving the way for a new era in tissue engineering, dubbed 'tissue engineering 2.0.'

The concept of anthrobots builds upon previous work by developmental biologist Michael Levin and his team at Tufts University in Medford, Massachusetts, who had previously devised tiny robots known as 'xenobots' using embryonic frog cells. However, the limitations of xenobots, derived from non-human cells and requiring manual sculpting, spurred the researchers to innovate further. The result is the development of self-assembling anthrobots, opening new avenues for therapeutic applications using human tissue cultivated in the laboratory, as detailed in their findings published in *Advanced Science*.

The Tuft University researchers grew spheroids of human tracheal skin cells in a gel for two weeks, after which they removed the clusters and grew them for one week in a less viscous solution. This 2-step treatment caused cilia (tiny hairs on the cells) to move to the outside of the spheroids instead of the inside, where they

acted as oars or blades used for propelling boats. Researchers found that the anthrobots thus produced—each containing a few hundred cells—swam in several patterns, such as straight lines, circles, arcs, and also, chaotically.

To evaluate their therapeutic potential, Levin and his colleagues placed multiple anthrobots in a small dish, where they spontaneously fused to form a 'superbot.' Placed on a layer of scratched neural tissue, the superbot demonstrated remarkable healing capabilities, restoring the damaged neurons within three days. This surprising outcome, without the need for genetic modification, marks a significant leap in regenerative medicine, according to Gizem Gumuskaya, a developmental biologist and study co-author at Tufts University.

Looking ahead, the researchers envision applications for anthrobots crafted from an individual's own tissue in tasks such as clearing arteries, breaking up mucus, or drug delivery, all without the need for genetic engineering. By experimenting with different cell types and stimuli, the possibility of developing biobots—robots composed of biological material—emerges, with potential applications in sustainable construction and outer-space exploration. As Levin emphasizes, understanding the capabilities of cell collectives not only informs the development of stand-alone bots but holds promise for advancements in regenerative medicine, including the prospect of limb regeneration.

## References

References available upon request

Understanding tissue engineering and regenerative medicine

Repairing or regenerating damaged tissues or organs to restore their functions has long been a human aspiration. Thanks to advances in tissue engineering and regenerative medicine (TERM), this dream is becoming a reality. Tissue engineering involves using cells, scaffolds, and growth factors to regenerate tissues or replace damaged ones. Regenerative medicine takes it a step further by combining tissue engineering with other approaches like cell-based therapy, gene therapy, and immunomodulation to encourage in vivo tissue and organ regeneration.

TERM is a diverse field that draws from various scientific disciplines, including materials science, biomechanics, cell biology, and medicine. Its goal is to achieve functional repair or reconstruction of tissues and organs. As the global population ages, the demand for organ replacements is on the rise. TERM has the potential to address this growing need and meet the future healthcare requirements of patients.

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# “Dental trauma management is not a one-size-fits-all process”

By Franziska Beier  
Dental Tribune International

Dr Rajiv Patel from the US will be a speaker at the upcoming ROOTS SUMMIT, which will take place from 9 to 12 May in Athens in Greece. His lecture will focus on dental trauma management and will cover a variety of scenarios, such as lateral luxation, crown-root fractures, intrusion and avulsion in growing individuals. In this interview, the passionate endodontist discusses how dental trauma management differs in children and adolescents, emphasises the role of endodontics in dental trauma patients and explains what all dental professionals should have on their dental trauma management checklist.

**Dr Patel, how did you first become involved in dental trauma management, and what do you find appealing about it?**

As a practising endodontist, I saw the connection between dental trauma management and the philosophy of saving teeth. My involvement began when I collaborated on a variety of cases with specialists and restorative dentists with whom I share a common philosophy. I find the unique challenges of dental trauma management, the opportunity to make a difference in patients' lives, the need for interdisciplinary collaboration and the potential for continual learning and innovation both interesting and fulfilling.

**In your ROOTS SUMMIT lecture, you will focus on dental trauma in the growing patient. How does the treatment of dental trauma differ in children and adolescents, and what special considerations have to be taken into account?**

The treatment of dental trauma in children and adolescents requires a specialised and multidisciplinary approach,



Dr Rajiv Patel is a practising endodontist, a diplomate of the American Board of Endodontics and a fellow and founding member of the International Academy of Endodontics. (Image: ROOTS SUMMIT)

educated on the importance of preventive measures such as mouth guards in order to avoid future dental trauma.

My lecture will be titled “Dental trauma—stretching the limits”, meaning that I will focus on pushing the boundaries and exploring innovative, advanced or unconventional approaches for challenging cases.

**Your lecture abstract mentions that attendees will be able to develop a dental trauma management checklist. What are some of the most crucial points on that list?**

Checklists can save lives, and in our field, we can save teeth with a systematic approach. The most crucial points on that list relate to pre- and intra-operative clinical assessment of the degree of trauma, the patient's neurological status, radiographic assessment

**interdisciplinary approach in treating complex dental trauma cases?**

them. For me, one such case involved an 8-year-old girl with an avulsed central incisor secondary

“An interdisciplinary approach ensures that all aspects of the injury are addressed comprehensively, leading to improved outcomes and a higher quality of care for the patient.”

Dental trauma management is not a one-size-fits-all process, and complex cases often demand the collaboration of various specialists to provide the best possible care. An interdisciplinary approach ensures that all aspects of the injury are addressed comprehensively, leading to improved outcomes and a higher quality of care for the patient. Endodontists, with their expertise in diagnosing and treating issues related to the dental pulp and adjacent structures, play a critical role in determining whether endodontic treatment, such as root canal therapy or more conservative vital pulp therapy, is necessary.

**Could you describe a particularly challenging case of dental trauma you have managed and the lessons learned from it?**

In the careers of most practitioners, some cases stand out owing to their complexity and the emotions associated with

to a bicycle accident. This provided a variety of challenges and lessons to be learned. Key takeaways included the critical importance of timely and coordinated care, the necessity of urging patients to seek immediate treatment and the advantages of interdisciplinary communication and collaboration. Utilising advanced technology for precise diagnostics was crucial for guiding my treatment decisions. I learned the importance of strategically planning treatment sequences for optimal outcomes, considering long-term care and focusing on patient education about prevention. Additionally, providing psychological support and counselling was instrumental in ensuring the best possible results and patient satisfaction.

**Are there any emerging techniques or materials in endodontics that you find promising for the treatment of dental trauma?**

A few existing and emerging technologies which continue to be developed are regenerative endodontics, minimally invasive techniques, biocompatible and bioceramic materials and CBCT. The potential for the utilisation of artificial intelligence in diagnosis, radiographic assessment and treatment planning in dental trauma management appears to be exciting.

**What do you enjoy about ROOTS SUMMIT, and what are you looking forward to at the upcoming event?**

I have attended other editions of ROOTS SUMMIT in the past. They are very well-organised meetings offering many practical take-home messages. For me, the journey in endodontics started with ROOTS, and I am excited to share the podium with many of my personal heroes in the field of endodontics. I am looking forward to learning and networking with my friends and meeting new colleagues from all over the world. I am hoping to see you at the next ROOTS SUMMIT in Greece.

“Checklists can save lives, and in our field, we can save teeth with a systematic approach.”

considering the unique aspects of growth and development in this age group. Careful monitoring, long-term planning and a focus on both functional and aesthetic outcomes are essential in these cases. Growing patients involved in contact sports need to be

and an informed discussion of treatment options.

Endodontics plays an important role in providing timely and correct treatment following trauma. Can you explain the importance of an



# 8th ACDI conference— huge success



The 8th Academy of Cosmetic Dentistry India (ACDI) conference was a resounding success. (Image: ACDI)

By Dr Riddhi Dhadda Telisara

The 8th annual conference of the Academy of Cosmetic Dentistry India (ACDI), an affiliate of The American Academy of Cosmetic Dentistry (AACD), held from January 5th to 7th, 2024, at Novotel, Juhu, Mumbai, was a resounding success.

Dr Mohan Bhuvaneshwaran, the founder president of ACDI, and Dr Saiesha Mistry, the current president of ACDI, undertook a rigorous accreditation process with the AACD. Their successful accreditation not only showcased their commitment to excellence but also ignited a fervor within them.

Motivated by their achievement, Dr Mohan and Dr Saiesha were inspired to establish ACDI in India, with the primary objective of imparting top-quality education to the nation. Their aim was clear: to share their passion for aesthetic and restorative dentistry by promoting the highest standards of excellence. Through ACDI, they aspired to create a platform that would inspire emerging dental professionals and seasoned practitioners to excel in their respective fields. Their dedication was palpable during the conference, where the fruits of their labor were evident in the success and impact of the event.

The fundamental principle of the AACD centers on responsible aesthetics, a core value that the ACDI is steadfastly dedicated to promoting. Responsible aesthetics, as elucidated by the AACD, extends beyond mere surface beauty, emphasizing the importance of functional stability achieved through tooth preservation and minimally invasive techniques to attain aesthetic outcomes. This philosophy integrates



Dr Mohan Bhuvaneshwaran, the founder president of ACDI, addressing the crowd.



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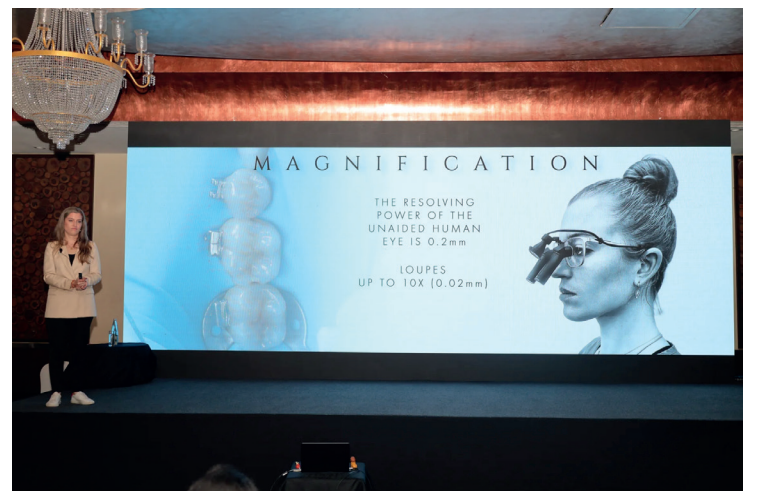
Dr Vijayakumaran Vijayaratnam, the immediate past president of AAED, Sri Lanka



Dr Anand Mohatta, organizing secretary, ACDI



Dr Adamo E Notarantonio



Dr Celine Higton magnifying the importance of isolation.