Scientific Letters

Exploring Innovations and Key Insights in Healthcare

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On behalf of the Editorial Team of *Scientific Letters*, we are pleased to announce the publication of the journal's third issue. The 2024 edition of *Scientific Letters* presents a diverse array of research that highlights significant advancements in health, dentistry, and clinical treatments.

Cancer continues to be a major area of concern in medical research, and this issue of *Scientific Letters* presents important findings. Henriques *et al.* explore the clinical relevance of p31^{comet} in head and neck squamous cell carcinoma, shedding light on a potential biomarker for cancer progression [1]. In another study, the same authors investigate the role of p31^{comet} in enhancing cisplatin-induced cytotoxicity in oral squamous cell carcinoma, presenting a promising avenue to improve cancer therapy effectiveness [2]. Both studies contribute to ongoing efforts to a better understanding of the molecular mechanisms behind cancer and the identification of new targets for therapy.

Several articles in this issue contribute to our understanding of orthodontics and maxillofacial procedures. Rocha *et al.* assess the effectiveness and predictability of maxillary expansion using the Invisalign system, highlighting its efficiency and potential in orthodontic treatment [3]. Oliveira *et al.* focus on the coronal repercussions of maxillary central incisor torque with clear aligners, offering valuable insights into treatment stability [4]. Another significant contribution by Leitão *et al.* evaluates the three-dimensional impacts of impacted maxillary canines, focusing on their effect on adjacent teeth [5]. Es-Samti *et al.* conduct a systematic review on the effects of mouthwashes on titanium alloy miniscrews, which are commonly used in orthodontic treatments, providing an important update on this clinical concern [6].

The application of new technologies in clinical settings is a key area of exploration. Ayres *et al.* examine the use of artificial intelligence (AI) in creating virtual patients for oral and maxillofacial surgical planning, a breakthrough that could streamline pre-operative planning and improve surgical outcomes [7]. This technology promises to revolutionize personalized treatments and reduce complications in surgery. In addition, Pinhata-Baptista *et al.* present a retrospective case series investigating four-millimeter implants supporting unsplinted metal-ceramic screw-retained crowns in the posterior jaw [8]. This study provides valuable data on the long-term viability and success of these implant-supported restorations. In addition, the software used in their study enables fully automated segmentation of tooth structures from computed tomographic scans using AI. These findings suggest that AI can significantly enhance the predictability of medical and dental treatments.

The issue also highlights public health concerns, including the mental and physical health of specific populations. Carvalho *et al.* study emotional distress and neurocognitive impairment among people living with HIV in Angola, revealing significant levels of psychological strain and cognitive challenges in this population [9]. Two studies examine the most common pediatric dentistry themes selected by students for dissertations or presentations at scientific conferences in a Portuguese higher education institution, contributing to a better understanding of the academic focus areas within dental education [10,11].

Duro *et al.* provide a timely study on the prevalence of anti-Spike IgG antibodies against COVID-19 three months after the end of the pandemic in Northeastern Portugal, contributing to ongoing efforts to understand the long-term immunity against COVID-19 [12]. Mendes *et al.* investigate the antibacterial effect of Leucocyte and Platelet Rich-Fibrin (L-PRF) against *Klebsiella pneumoniae* and *Staphylococcus aureus*, which could offer a novel approach to infection control in clinical and surgical settings, providing promising results for the use of L-PRF in combating bacterial infections [13].

In 2024, *Scientific Letters* also published a special issue in the form of Book of Abstracts. This publication compiles all abstracts that were accepted for presentation at the III 1H-TOXRUN International Congress, held on 02-03 May 2024 in Porto, Portugal [14]. The journal will remain a partner for the IV upcoming edition of this congress, taking place on May 8-9, 2025, in Porto, Portugal (https://toxrun.iucs.cespu.pt/congress2025/).

The 2024 issue of *Scientific Letters* highlights the ongoing advancements and interdisciplinary nature of healthcare research. As we look to the future, continued innovation in areas such as AI, personalized treatments, and the development of novel therapeutic compounds will be crucial. We look forward to further contributions that will continue to shape the future of medical science and improve patient outcomes worldwide.

Conflicts of interest

The authors declare no competing interests.

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