

EDITORIAL

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DANIEL BODA¹ and ARISTIDIS TSATSAKIS²¹Dermatology Research Laboratory, 'Carol Davila' University of Medicine and Pharmacy, 050474 Bucharest, Romania;²Department of Medicine, Laboratory of Toxicology, University of Crete, Heraklion 71003, Greece

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Immunological pathways have been extensively studied in the past 30 years as key processes of pathogenesis and outcome in several dermatological diseases and linked to new therapeutic treatment options. Thus, this special issue focuses on reviews, original articles and case presentations in immuno-dermatology, in order to partially elucidate those pathways and processes.

The main dermatological diseases covered in this special issue were immunological phenomena involved in psoriasis, lichen rubra, vitiligo, atopic dermatitis, chronic venous insufficiency and adverse drug reactions.

The wound healing process comprises a complex network of cells and molecules that are regulated in order to pursue tissue regeneration. The study by Bucur *et al* (1) focused on the capacity of alveolar blood clots, platelet-rich fibrin and plasma rich in growth factors (PRGF) to induce *in vitro* fibroblasts proliferation and migration as a measure of alveolar regeneration.

Rusu *et al* (2) aimed to analyze the interactions between T lymphocytes and a resorbable three-dimensional collagen matrix routinely used for soft tissue regeneration during periodontal surgery. The presented results showed that the main interaction between the collagen matrix and immune cells stimulated the activation of T cells and did not impair the healing process.

Grigore *et al* (3) analyzed the role of stress in the modulation of skin neurogenic inflammation in healthy volunteers. The results showed that exposure to stress is associated with an amplification of the mechanisms involved in capsaicin-induced skin neurogenic inflammation.

Ilie *et al* (4) concentrated their research on the *in vivo* confocal laser scanning microscopy (CLSM) imaging of skin inflammation: clinical applications and research directions, describing the principles of the *in vivo* CLSM technique, its role in the diagnosis and monitoring of inflammatory skin diseases, as well as some promising research directions to examine the dynamics of skin inflammation using this method.

Depicting the link between related purine derivatives and renal failure, Nicolae *et al* (5) conducted a prospective study on a group of psoriasis vulgaris patients and presented a series of positive and negative associations between purine derivatives and renal parameters. Based on their findings, they consider that severe psoriasis is a risk factor for the development of renal disease.

The original article of Boca *et al* (6) studied new potential therapeutic drugs in psoriasis, using an extract of sea buckthorn that shows promising results as an adjuvant or a component in psoriasis care protocols.

Although at present biological treatment constitutes the first-line treatment in moderate to severe forms of psoriasis, methotrexate (MTX) is an important anti-inflammatory and anti-proliferative drug.

Balanescu *et al* (7) demonstrated the effects of MTX on cardiovascular adverse reaction in immune-mediated dermatological conditions stating that the cardiovascular effects of MTX, albeit incompletely understood, are explained by its antiproliferative, immunosuppressive, anti-inflammatory and antiatherogenic effects.

Surcel *et al* (8) examined in a research article the Imiquimod-based murine model of psoriatic dermatitis as an alternative to traditional models of experimental psoriasis in mice and the induced dermatitis closely mimicking the pathologic changes in human psoriasis.

Focusing on new treatment options in vitiligo using bioactive compounds of *Piper nigrum* (PN), Mihaila *et al* (9) showed that the PN extract and its main alkaloid, piperine, promote melanocyte proliferation *in vivo*, which is consistent with previous research.

In the pathogenesis of lichen planus (LP) the link between this chronic skin condition and related pathologies has often been encountered. The review of Georgescu *et al* (10) aimed

Correspondence to: Dr Daniel Boda, Dermatology Research Laboratory, 'Carol Davila' University of Medicine and Pharmacy, 8 Eroii Sanitari Avenue, 050474 Bucharest, Romania
E-mail: danielboda@yahoo.com

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to summarize the main potential mechanisms involved in the association between LP and HCV infection. Understanding the link between the two disorders may shed some light on the pathogenesis of LP, which is a challenging issue.

In the same pathology of lichen rubra, Ianos *et al* (11) focused on new *in vivo* diagnostic tools in order to properly quantify this condition and avoid unnecessary biopsies. At present, classical invasive diagnostic methods are replaced by modern non-invasive techniques, such as dermoscopy, reflectance confocal microscopy, optical coherence tomography, ultrasound and diffuse reflection spectrophotometry.

A broad number of patients suffer from atopic dermatitis, the most commonly accepted prevalence of atopic patients being approximately 10% of the total population. Deleanu *et al* (12) reviewed biological treatment in atopic dermatitis with a focus on novel targeted agents: systemic immunotherapy (Omalizumab, Dupilumab, Lebrikizumab, Tralokinumab, Nemolizumab, Ustekinumab, Fezakinumab, Tezepelumab, Apremilast, and allergen-specific immunotherapy), and topical agents (Tofacitinib, Crisaborole).

Nedelea *et al* (13) reviewed the clinical features and etiology of isolated angioedema. Emphasizing that mast cell-mediator release is frequently observed, the authors of that study elucidated that the clinical pattern and the possible causes of isolated angioedema are the key to a correct diagnosis.

Sabau *et al* (14) focused on new diagnostic procedures in the diagnosis of atopic dermatitis (AD) using high frequency ultrasonography and the results indicate that skin ultrasonography is able to assess specific modifications of the AD skin.

Solomon *et al* (15) concentrated their study on reviewing the influence of lifestyle factors on the outcome of AD as a multifactorial chronic inflammatory disease with an incompletely understood etiopathogenesis.

The link between life style factors and autoimmune diseases was also shown by Constantin *et al* (16) in a review on lupus erythematosus patients. The study clearly emphasizes the beneficial role of personalized diet in patients with SLE, and the information presented could be used in daily practice.

Chronic Venous Disease (CVD) affects millions of individuals, negatively influencing the patient's quality of life (QoL), with most of the patients being diagnosed with CVD in advanced stages. Branisteanu *et al* (17) assessed the QoL for adult patients newly diagnosed with CVD.

Feodor *et al* (18) assessed CVD prevalence, risk factors and clinical characteristics in the adult population in Romania.

Ianos *et al* (19) focused on the treatment of leg telangiectasias in a blind comparative study using Nd:YAG laser vs. sclerotherapy, proving that telangiectasias and reticular veins of the lower extremities can be successfully treated with Nd:YAG laser.

Adverse drug reactions were reported by Iordache *et al* (20), which showed the incidence and different aspects of skin lesions in contrast-induced chemical hypersensitivity.

Senila *et al* (21) report a case of progesterone hypersensitivity in a 27-year-old woman with favorable evolution only on topical therapy, the positive clinical outcome being maintained during a subsequent pregnancy and postpartum period.

Fekete *et al* (22) presented a case of cutaneous leucocytic vasculitis after erlotinib treatment, and the limited number

of cases precludes any meaningful interpretation of data regarding Erlotinib-induced cutaneous vasculitis.

Pemphigoid nodularis (PN) is a rare clinical variant of bullous pemphigoid characterized by the presence of nodular prurigo-like lesions and pemphigoid blisters. Vornicescu *et al* (23) described a case presentation of a patient with pemphigoid nodularis and summarized the reported characteristics of PN.

To conclude, the quality of the papers submitted to the Special Issue of 'Experimental and Therapeutic Medicine' meets the Journal's standards, as it makes fundamental scientific points, thus achieving the proposed aims of the issue. We would like to take this opportunity and thank all the authors for their valuable contribution.

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