PAN-EUROPEAN SOCIETIES COHESION

To be familiar with ever new discoveries from the science and education is important for all scientific journals. That is why some impressions from the 15th Meeting of the European Dermatology Forum (EDF) in Interlaken, Switzerland, January 19-21, 2012, brought us new discoveries from the novel inflammatory and anti-inflammatory mechanisms (Mantovani A, Milan) as well as pathogen-host interactions and skin disease (Schröder J, Kiel). The basic immunologic presentations demonstrated new discoveries in pharmacological research and in immunity, especially on the yin-yang of macrophage polarization, viral chemokines, inflammatory chemokines, Tbc pentraxin superfamily, pentraxin 3 translation and functional ancestor of antibody (anteantibodies).

Schröder J (Kiel) pointed to the pathogen-host interactions, skin diseases and host-defense peptides. Human body consists of $1 \times 10^{14}$ cells. The skin is an important system that consists of physical barrier (stratum corneum with lipids); microbial barrier (microbe derived antimicrobials); chemical barrier I (at the surface located host-derived components); chemical barrier II (epithelial cells); and chemical barrier III (inducible epithelial AMPs from living epidermal peptide). Psoriasisin is the major protein found in the skin fluid washing with antimicrobial activity. Human β-Defensin-2 is inducible, gram-bacterial killing antimicrobial host and human β-Defensin-3 induced upon wounding, broad spectrum AMP. Corticosteroids inhibit antimicrobial peptide production.

On Friday 20, 2012, Hoffmann T (Basel) delivered scientific presentation entitled Future role of medical chemistry and its maturation to chemical biology, on the history of Valium and 15,000 patients treated over 10 years, on multidimensional optimization of the first potent, selective, clinically efficacious GLyT1, inhibitor, on future trends in discovery chemistry, and intracellular delivery of polar macromolecules in regenerative medicine. Any genes of the human genome may be considered for post-transcriptional approaches.

Presentation on the plant-based pharmaceuticals for the prevention and treatment of autoimmune diseases (Pezzotti M, Verona) gave us an insight into the apoplast, cytosol, chloroplast, vacuoles, protein bodies and other important plant parts as bioreactants and monoclonal antibodies from plants.

There are new paths for pharmacological research (Detmar, Zurich) as well as target-based drug screening and phenotype-based drug screening first class drugs that identify the affected protein target.

Jonathan Baker, London, for the European pharmacogenomic project on psoriasis, informed on molecular genetic techniques and rare alleles causing Mendelian disease, from low-frequency variants with intermediate effect to common variants implicated in HLA-C and ERAP I. There are genome wide association scan (GWAS) and Immunolip (200,000 candidate targeting SWPs implicated in multiple immune mediated diseases and exome chip (50,000 candidates) for rare genetic diseases in use. He pointed that Personalising outcomes in psoriasis: a European Consortium study is active in pharmacogenomic research.

Alexander Nast (Berlin) and some working group presidents elaborated on EDF Guidelines working groups: Psoriasis, Extracorporeal photopheresis, Melanoma, Autoimmune bulous diseases, Chronic urticaria, Acne, Basal cell carcinoma, Vitiigo, STIs, Dermatofibrosarcoma, Squamous cell carcinoma, Venous leg ulcers, Cutaneous lymphoma, Intravenous immunoglobulins, Actinic keratoses, Hydradenitis, HPV, Lichen sclerosus. Options for new guidelines are Scleroderma, Lupus erythematosus, Lichen planus, Herpes simplex.

There was important consensus on EDF Education: Bagot M (Paris) and Gollnick H (Magdeburg); and on Genodermatoses Database: Bauer J (Salzburg), Zambruno G (Rome). Scientific Session on Unmet Needs in the Management of Skin Diseases – Inflammatory Diseases and Neoplastic Diseases gave us
an insight into atopic dermatitis (Taieb A, Bordeaux) with Elipanel Study and approach to stabilize the high prevalence of the disease; chronic inflammatory skin diseases: vitiligo, type 1 diabetes, rheumatoid arthritis, autoimmune thyroiditis and pangenomic studies (GWAS); and targeting specific inflammation in psoriasis, atopic dermatitis and contact dermatitis with drugs, i.e. anti-interferon gamma, anti-interleukin 17, IL-4, IL-6, IL-23 and other important actors in inflammation. It is necessary to learn from failures of powerful targeted drugs. There is the need of good algorithm for the treatment of childhood psoriasis as well as a link to metabolic syndrome. As for pustular psoriasis, we learned that there is mutation in the IL-1 RN gene encoding IL-1 RA in anti-inflammatory diseases and IL-36 receptor antagonist deficiency in pustular psoriasis. Early intervention is necessary for systemic diseases.

For neoplastic disease unmet is therapy with dacarbazine, temozolomide and totemustatine, especially in oncogenic mutations in metastatic melanoma. Cancer immunotherapy with vaccines for stage III melanoma and with ipilimumab + DTIC was proposed. In Industry Symposium (Pfizer), vaccines, small molecules and biotherapeutics were pointed out, along with strong portfolio in dermatology research and education. Leo Pharma foundation support in dermatology refers to care, information, diagnostic, active drug components, formulation, delivery system services, especially for psoriasis, eczema and lymphoma. Ingenol mebutate 0.015% gel/day/3 days is effective in 74% of psoriatic patients.

Abbott International presented adalimumab study (phase II), a program over 52 weeks for hidradenitis suppurativa as well as other therapeutic options.

The most important parts of the EDF Meeting were reports of five Pan-European Societies: European Academy of Dermatology and Venereology (JEADV); Journal of Investigative Dermatology (J Invest Dermatol); and Pediatric Dermatology Journal.

Evidence-based and personalized medicine (A. Nast) pointed how the guidelines published in indexed journals, e.g., for psoriasis (JEADV) informed 49% of dermatologists in Europe and worldwide and improved patient outcomes. Twenty-four EDF guidelines that are very important for continuing dermatologist education are available on the web. There was a very important lecture entitled Networking Pharmacology (Dingermann T, Frankfurt), providing details on the mortality rate in dermatology in 1889 compared to the lower rate in 1992, and on the improved diagnostic and therapeutic efficacy. But, what makes a medical intervention cost effective? We need a new paradigm on adverse drug reactions. In Germany there are 17,000 deaths from dermatologic treatment per year. From tamoxifen syndrome (5 years of chemo-preventive therapy) we have learned that there are non responders, responders and adverse responders (ADR). Very important are clinically relevant substrates for CYP 2D6.

The lecture entitled Personalized Medicine: A View into the Future (Pirmohamed M, Liverpool) informed us on the TEN meta-analysis of the HLA-B*1502 phenotype research in Chinese, Thai and Indian populations, where it is pathognomonic in 7.7% for some drugs, but not in Caucasians and Japanese. Carbamazepine-induced hypertension develops in those with HLA-A*3101, and for flucloxacillin in those with HLA-B*5701 (Avacavir).

The International Consortium on Drug Hypersensitivity (ITCH) and International Serious Adverse Event Consortium (ISAEC) point to the need for future evidence based medicine: evidence based information; cost effective drugs; ability to test patients; clinician acceptability; patient acceptability; and education.

Clinical trials design and randomized studies are important, e.g., Case Reports, Case Series, Case Control Studies, Cohort Studies. There were 127 leaders in dermatology participating actively or as attendees in the 15th EDF Meeting in Interlaken and made us all richer in dermatology science.

Professor Jasna Lipozenčić, MD, PhD
Editor-in-Chief