

The 10th International Congress of International Society of Cosmetic Dermatology

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In the splendid setting of Shenyang last year (May 30 – June 1) was organized the 10th International Congress of I.S.C.D: *Life, Science Meet Cosmetology*, together with University Division of Medical and Health of Chinese Academy of Engineering, and China Medical Association.

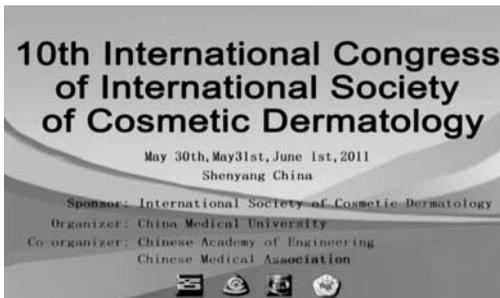


Fig. 1 The Conference sign.

This meeting based on the specific general theme of *Beauty and Wellness* has covered 14 hot topics in the field of Cosmetic Dermatology by 1 plenary session, 12 concurrent and 8 satellite sessions. Under the Presidency of Xing- Hua Gao professor and Chair of the department of Dermatology in the China Medical University of Shenyang and the co-Presidency of Salvatore Mancuso Professor emeritus in Gynaecology and President of the Ethical Committee in Policlinico Agostino Gemelli, School of Medicine in Rome, Italy. The meeting had a

great success of participants with about 600 dermatologists coming worldwide.

It is interesting to underline that the same day of the meeting opening (May 30), the Chinese Premier Wen Jiabao, addressing in Beijing the plenary session of the National Congress of the China Association for Science and Technology, declaring that “China must develop its abilities in science and technology building up a large pool of talented individuals, to take the initiative in international competitions”. The Premier said “the nation should work hard on creating an environment bold and innovative one that will also encourage freedom and democracy in academic issues”.

Thus, he stressed “China cannot develop without developing science and technology, which represent the future of the progress”.

And the ISCD meeting, perfectly organized from the friend Prof. Gao and well supported from Prof. Li and all the scientific Chinese and estranger scientists has gone in this direction. Many of the numerous and interesting scientific papers presented explored in fact, the possibility to do something that no one has ever succeeded in doing before in the interesting field regarding the human wellness.

Exploration is to be considered at the base of any scientific research capable to produce new scientific achievements, also if many explored research method may be important and worth while always containing the risk of failure.



Fig. 2 The Introductory Conference Day.

What is interesting to underline is the great participation of many Chinese scientists coming from the larger and import cities of the Main China, as Beijing, Shanghai, Dailan, Hangzhou, Xi'an but also from Taiwan and naturally from USA, UK, France, Germany, Italy, Japan, Korea and Singapore. The presence of the numerous Chinese scientists explains the latest report from the Royal Society, (the UK's national Science Academy), underlying that China has replaced the UK in second place, behind the Unites States of America, in terms of its share of the world's scientific research papers written in English.

Although outsiders expect Chinese to be conservative, the internal and official debate and speech in this meeting not only scientifically-oriented but also socially oriented, were without taboos and completely unbounded. This is actually a place of mind emancipation and free speech in Main China "to ensure a harmonious and stable society full of vitality", according with the words reported from the China President Hu Jintao during the opening ceremony of a seminar for provincial and ministerial officials at the central Party School in Beijing (June 1, 2011).

The President underlined that in China these new method of social management is "still in a stage where many conflicts are likely to arise", despite remarkable social and economic development.



Fig. 3 The Enquire of an attendant in the conference room.

In this speech he highlighted the necessities to "improve the structure of social and scientific management" which must be achieved through the Party Committees' leadership, government's responsibilities, but also supported from non governmental organisation and public participation. And in this direction has gone also the ISCD meeting based on Wellness at 360°.



Fig. 4 Prof. Morganti speaking.

The increasing number of links that researchers are discovering between the skin and the immune, nervous and endocrine systems is leading them to investigate whether excess stress or too little stress can abnormally alter the immune

defences. Thus, many studies have determined that hormones of the endocrine system help the immune and nervous systems defend the body, as, for example, for people affected by acne or atopic dermatitis, having both a disrupted skin barrier.

Repair its function is, therefore, an important must for successful treatment of many dermatological pathologies. The skin forms, in fact, an effective chemical/biochemical (antimicrobial, innate immunity) barrier between the human body and the environment, preventing invasion of microbes and fending of chemical and physical assaults. Production of antimicrobial peptides (AMPs) by the skin is a primary system for protection and expression of some AMPs, further increased in response to microbial invasion. AMPs act, in fact, not only as endogenous antibiotics with the function to kill microbes, but form also a chemical shield on the skin 'surface, triggering and coordinating multiple components of the innate and adaptive system. Thus, for example, the excess of Radical Oxygen Species (ROS) coming from the environment and pathologic conditions, or from skin ageing may attack cellular macromolecules leading to cell damage and/or to its death. This is the reason why skin and human body produce antioxidant compounds necessary to neutralize and reduce the excessive presence of these ROS. Resveratrol, green tea or L-ascorbic acid acting as drug or cosmetic products, are, in fact used topically or by oral route, to prevent oxidative damage to cells. It is interesting to underline as oceans contain a vast biological diversity of species producing many natural bioactive secondary metabolites which offer interesting challenges to chemists working with natural products as well as to biologists and pharmacologists alike.

At this purpose by collaboration between Italian and Chinese scientists different classes of new ingredients were selected from marine invertebrates and plants, showing significant biological

activities, including anti-inflammatory, anti-tumour and anti-bacterial properties. But other active ingredients, obtainable from fishery wastes, as chitin nanofibrils and chitosan, are now used to produce more effective and skin-friendly cosmetic products as well as bio-textiles and innovative wound dressings.



Fig. 5 Prof. Gao speaking.

These innovative electrospun dressings are characterized, in fact, by a wide range of pore size distribution, high porosity, and high surface area-to-volume ratio, considered favourable parameters for cell attachment growth and proliferation. The porous structure obtainable by the use of chitosan and chitin nanofibrils is particularly important for fluid exudation from the wound, avoiding wound desiccation, and impairing exogenous microorganism infection. These, among the many topics reported from scientists coming from Beijing, and Sichuan Universities, as well as from Fudan University of Shanghai and Naples University, in Italy.

But skin ageing and, therefore, skin barrier is greatly influenced by the environment where we are living as well as the food we are eating. This was another topic reported in this meeting. At this purpose the impact of air pollution on skin ageing was analyzed by linear regression using a geographic information system. Exposure to air bone particles was determined by measurements of ambient PM10 (particulate matter with <math><10\mu\text{m}</math> in diameter) concentrations, at fixed

monitoring sites and traffic exposure by distance of residency to a major road (<10,000 cars/day). Signs of aging were evaluated, including pigment spots, coarse wrinkles, solar elastosis, and telangiectasias, to determine the effects of exposure to PM on extrinsic aging. In conclusion, it has been shown that, as it happens for sun exposure or tobacco smoke also, these environment nanoparticles accelerate all the signs of ageing reported. However, skin ageing as progressive process is not only a problem of appearance but also an economical problem. Its ultimate appearance is determined, in fact, by the sum of damaging effects caused by environmental factors and intrinsic (chronological) skin ageing. Of the damaging environmental factors, ultra violet (UV) radiation is by far the major contributor.



Fig. 6 Prof. Hong Duo Chen.

The importance of repeated sun-exposure and/or sun-bed exposure in premature skin aging is well recognized, referred to as photoaging. Clinically the scene is dominated by fine lines and wrinkles for deficiency of collagen and elastin abnormalities, with variable amount of dyspigmentation. Thus, the preeminent use of cosmetic products and drugs based for example on the use of retinoic acid, is capable to neutralize the excessive presence of ROS, restoring the collagen deficiency also.

Speaking about the problem of aging it is interesting to remember that Chinese National Bureau

of Statistics by the sixth national census has underlined that China remains the most populous country in the world with more than 1.3 billion people having actually the population growth at a moderate pace of about 0.5 percent a year. China's fertility rate is, however, so low that populations aging are imminent. The 2010 census shows that the Country now has only about 222 million children (0-14 years old), while about 35 years ago they reached the historic number of 360 million, according to United Nations (UN) estimates. Thus, the number of children has declined by about 138 million, and over the next 35 years the UN projects a further drop of more than 80 million. As a consequence, because of this rapid growing of aging population, if the fertility rate will continue to decline, the financial support for the elderly will represent an enormous future challenge for Chinese Government. This was another theme of discussion among the many scientists. However, Chinese are more optimistic about their prospects after retirement than people from Western countries.



Fig. 7 Prof. Gao speaking during the Gala Dinner.

Therefore, on one hand, Western scientists reported that changes in the pension system offered in their home countries will make it harder for younger generations to enjoy pension benefits, as generous as those that were given to their parents. On the other hand, Chinese scien-

tists believe they would be better off than their parents after retirement. This is because China is reforming all its systems of management, decision-making, appraisal and personnel in all the fields, especially increasing and supporting Science and Technology, considered to represent the base of the Progress in the actual and future Economy.

Research and Development require more raw materials and energy. Therefore, due to the continuous advancement of the Country's new energy technologies, the rising costs of fossil fuels, and the emissions, new energy will play a growing role in China's energy consumption structure. Thus, China is now the world leader in solar and thermal power technologies and in their development scale, with the relative intellectual property rights.

These and many others were the scientific topics reported and discussed during this 3 days International Meeting. As for the last ISCD congress, the main scope of the meeting was to design the way for obtaining Beauty and Wellness at 360°, ameliorating our way of living. The high scientific and cultural level of all the participants, the perfect organization, the wonderful and warm welcome and hospitality of the Chinese organizers, completed by the beautiful locations as well as the nicely-organized coffee-breaks and lunches, has shown that the real Comparison and Scientific collaboration of the East and West cultures at 360°, appear crucial to improve the future quality of life worldwide.