Therapy of craniofacial defects successful

Daniel Zimmermann

HONG KONG/LEIPZIG, Germany: At a meeting on regenerative medicine and stem cell research in China, clinicians from Spain presented what could be a breakthrough in the treatment of craniofacial defects. With the help of Bone Repair Cells (BRCs) developed by the US company Aastrom Biosciences Inc., patients experienced new bone formation and nerve recovery in cases of severe mandibular osteoradionecrosis and osteomyelitis. Bone Repair Cells are derived from a small sample of the patient’s bone marrow, which is processed using Aastrom’s proprietary Tissue Repair Cell (TRC) technology to generate larger numbers of stem and early progenitor cells with enhanced therapeutic potential.

“The outcome of these treatments with BRCs has been very satisfactory. We observed early bone formation in the affected areas that eventually resulted in complete healing,” said Dr Jose Mendonca, Director of the Head and Neck Surgery Unit of Hospital POLUSAL in Lugo in Spain and previously a Clinical and Research Fellow in Oral and Maxillofacial Surgery at the UCLA School of Dentistry. “Unexpected therapeutic results from treatment with BRCs include peripheral nerve regeneration or re-pair, new skin formation and proliferation in blood vessels in ischemic areas. The results open a promising pathway for the treatment of some patients where conventional therapies fail or do not exist.”

Ethical approval for compassionate use of TRC-based products was granted by the Spanish Ministry of Health.

In May 2008, Aastrom announced the re-prioritisation of its clinical development programmes to focus primarily on cardiovascular applications, thus discontinuing further patient enrolment in the US Phase II ON-CORE bone regeneration clinical trial. The company does not anticipate new clinical bone activity or reactivating the Phase II ON-CORE trial at the present time but will continue to treat patients on a compassionate-use basis in Spain. “Our bone programme remains open for partnering. Encouraging compassion-use treatments such as those noted by Dr Mendonca strengthen our bone programme portfolio, especially in EU,” said Dr Sheldon A. Schaffer, Aastrom’s Vice-President of Corporate Development and Intellectual Property.

Dr. Jose Mendonca demonstrating his presentation in Dalian, China. His research on bone cells for the treatment of craniofacial defects has shown promising results. (DTI/Photo Courtesy by the China Medicinal Biotech Association)

Millions of new HIV infections

A new report by the organisation UNAIDS has called on countries in Asia and the Pacific region to scale up HIV prevention programmes and structural interventions for men with high-risk sexual behaviour. The report released at the 10th International Congress on AIDS in Asia and the Pacific in Bali, Indonesia, notes that men who buy sex constitute the largest infected population group and most of them are either married or will get married. This puts a number of 50 million women, often perceived as ‘high risk’ because they only have sex with their husbands, at risk of HIV infection.

Despite being in a relationship, at least 75 million men regularly buy sex from sex workers in Asia, and a further 20 million men have sex with other men or are injecting drug users, according to UNAIDS figures.

Dental pain afflicts redheads more

A recent US study has found that genetics may be behind the increased incidence of dental pain in people with red hair. The study identified a new melanocortin-1 receptor gene found in skin, hair and eyes that plays a role in processing pain, anxiety and fear in the human brain.

New implant coating shows improvement

A research team in Israel has developed a new way to electrochemically deposit synthetic hydroxyapatite onto dental implants. Instead of spraying the coating with plasma, the implant is placed into a bath of electrolyte solution, to which an electric current is applied.