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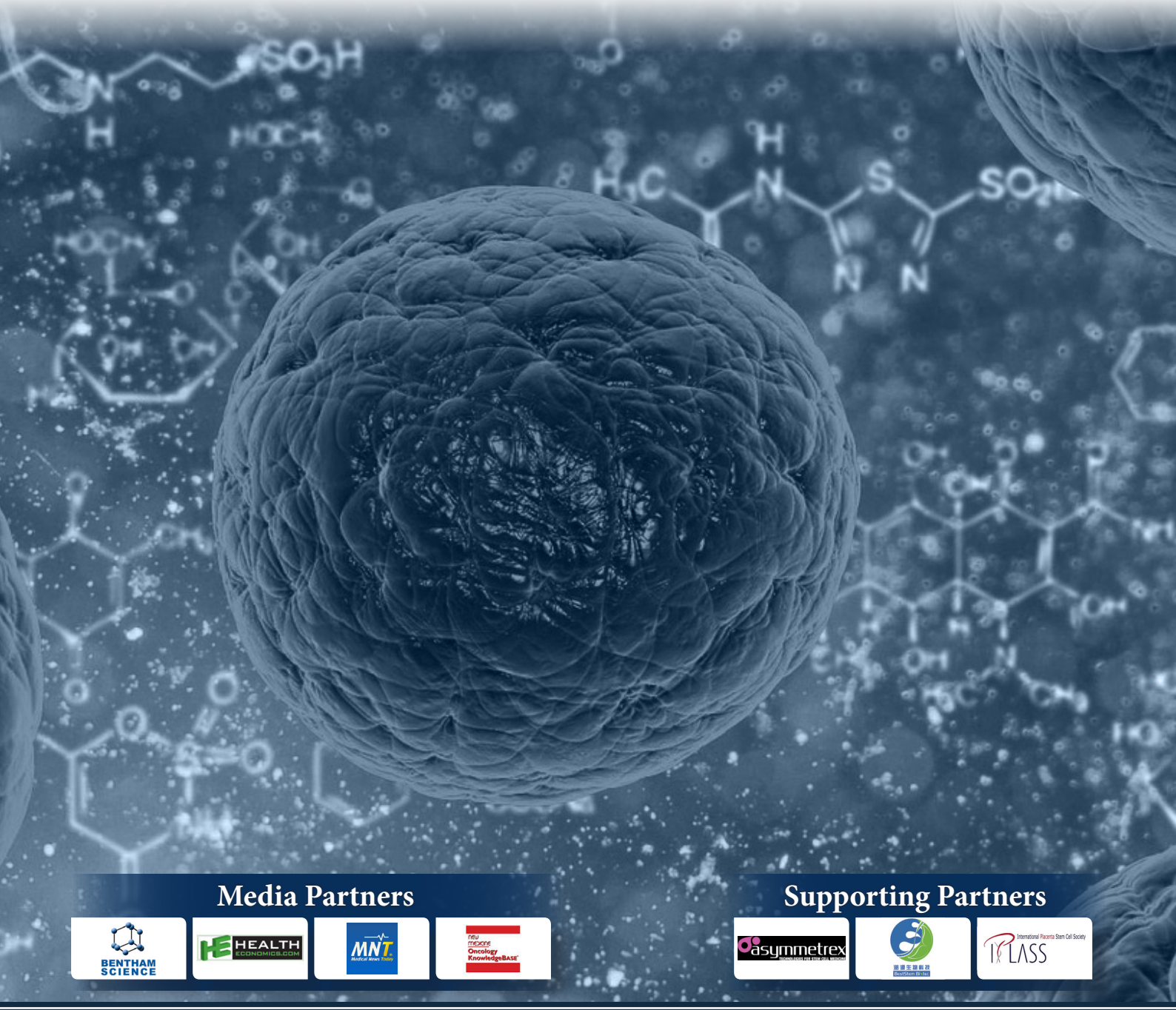
Scientific Program

5th World Congress on

Cell & Stem Cell Research

March 23-25, 2015 Chicago, Illinois, USA



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Day 1 March 23, 2015

08:00-08:30 Registrations

Vienna Room

conferenceseries.com 08:30-08:55 **Opening Ceremony**

Keynote Forum

08:55-09:00 **Introduction**

09:00-09:25 **Title: Current driving factors in stem cell-based regenerative medicine**
James L. Sherley, Asymmetrex LLC, USA

09:25-09:50 **Title: Apoptosis as an effective means of inducing tolerance to pancreatic islets for the treatment of type 1 diabetes**
Haval Shirwan, University of Louisville, USA

Workshop

09:50-10:15 **Title: Post-traumatic osteoarthritis: clinical reality and experimental approaches**
Susan Chubinskaya, Rush Medical College, USA

10:15-10:35 **Title: Athletes, Sports Medicine and Stem Cells: Regenerative Applications**
Dennis M. Lox, Director Sports and Regenerative Medicine Centers, USA

Symposium on Stem Cell Medical Engineering

10:35-10:55 **Title: Asymmetric Self-Renewal: The fundamental property of tissue stem cells is the fundamental principle for their medical engineering**
James L. Sherley, Asymmetrex LLC, USA

Group Photo

Coffee Break 10:55-11:10 @ Vienna Foyer

Track 3: Stem-cell transplantation
Track 7: Cell Mechanics
Track 8: Cell based Therapies of Blood Diseases

Session Chair: James L. Sherley, Asymmetrex LLC, USA

Session Chair: Ornella Parolini, International Placenta Stem Cell Society (IPLASS), Italy

Session Introduction

11:10-11:30 **Title: ProtEx™ technology as an effective means of engineering bone marrow cells with immunoregulatory molecules for the establishment of mixed hematopoietic chimerism**
Haval Shirwan, University of Louisville, USA

11:30-11:50 **Title: Regulation of miR-34a-SIRT1 axis reduced breast cancer stemness**
Gary Guishan Xiao, Dalian University of Technology, China

11:50-12:10 **Title: Pluripotent stem cell-based therapy for Parkinson's disease**
Xianmin Zeng, XCell Science Inc, USA

12:10-12:30 **Title: Intrinsic role of p53 in the differentiation of neural stem cells**
Margarita Glazova, Russian Academy of Sciences, Russia

12:30-12:50 **Title: Fusion peptide P15-CSP coatings suppress biofilm formation and advance mesenchymal stem cell osteogenic differentiation on hydrophilic but not hydrophobic surfaces**
Caroline Hoemann, Ecole Polytechnique, Canada

12:50-13:10 **Title: Neuron point-of-care stem cell therapy (N-POCST): Transplantation of autologous bone marrow-derived stem cells for traumatic central nervous system disorders, the future of a new method**
Francisco Ruiz-Navarro, Austrian Society for Regenerative Medicine, Austria

Lunch Break 13:10-13:55 @ Athens Foyer

13:55-14:15 **Title: Uncomplicated way to induce pancreatic beta cell formation in vivo through "Cellular Networking, Integration and Processing (CNIP)**
Bruno Doiron, University of Texas Health Science Center, USA

14:15-14:35 **Title: The impact of superoxide-peroxide hydrogen imbalance on cellular dysfunction, senescence and on regenerative therapies**
Ivana Beatrice Mânica da Cruz, Universidade Federal de Santa Maria, Brazil

14:35-14:55	**Title: TNF modulation of cancer stem cells in renal clear cell carcinoma** **Rafia S. Al-Lamki,** University of Cambridge, United Kingdom
14:55-15:15	**Title: Mobilization and differentiation of multipotent Nestin+ stem cells during arterial remodeling** **Mei Wan,** Johns Hopkins University School of Medicine, USA
15:15-15:35	**Title: Increasing the engraftment capacity and function of hematopoietic stem cells after transplantation** **Hanna Dobrowolska,** Columbia University Medical Center, USA
15:35-15:55	**Title: The RNA profile of exosomes from MSCs during osteogenic differentiation** **Wendy W. Weston,** VIVEX Biomedical, USA
Coffee Break 15:55-16:10 @ Vienna Foyer	
16:10-16:30	**Title: The histone tail domains are critical in cell proliferation** **Christophe Thiriet,** Université de Nantes, France
16:30-16:50	**Title: Delineating stem cells and cell hierarchy in the bovine mammary gland** **Itamar Barash,** Agricultural Research Organization, Israel
16:50-17:10	**Title: Synthetic mRNAs as optimised tools for stem cell generation and for manipulating cellular phenotypes** **Guido Krupp,** AmpTec GmbH, Germany
17:10-17:30	**Title: Extracellular matrix-assisted cell viability** **Christopher A Bradley,** Lattice Biologics, Inc., USA
17:30-17:50	**Title: CREG1 interacts with Sec8 to promote cardiomyocyte differentiation of embryonic stem cells** **Shaohua Li,** Rutgers-the State University of New Jersey, USA
17:50-18:10	**Title: The potential differentiation of hypoxic niche bone marrow derived autologus mesenchymal stem cells for retinal disorder treatment** **Purwati Armand,** Airlangga University, Indonesia
18:10-18:30	**Title: Platelet Activity: The assessment profi le in patients with sicle-cell hemoglobinopathy and the antiplatelet potential of synthetic compounds** **Reinaldo Geraldo,** Federal University of Juiz de Fora, Brazil
18:30-19-30	Cocktails sponsored by **Journal of Cell Science & Therapy @ Athens Foyer**

Day 2 March 24, 2015

Vienna Room

Keynote Forum

08:30-08:55	**Title: Anti-Apoptotic Actions of Thyroid Hormone in Cancer Cells may limit Effectiveness of Chemotherapy** **Paul J. Davis,** Albany Medical College, USA
08:55-09:20	**Title: DNA damage in lymphocytes from healthy individuals and respiratory disease patients, treated ex vivo/in vitro with aspirin and ibuprofen nanoparticles compared to their bulk forms** **Diana Anderson,** University of Bradford, United Kingdom

Workshop on stem cells in glomerular repair: Present status, challenges, and future expectations
(09:20-11:35) Chair and Moderator **Guillermo A. Herrera,** Louisiana State University Health Sciences Center, USA

09:20-09:45	**Title: Generic glomerular damage viewed through a unique experimental model: Understanding the repair that needs to be accomplished. What we know and what we need to find out** **Guillermo A. Herrera,** Louisiana State University Health Sciences Center, USA
09:45-10:10	**Title: The renal parenchymal niches of progenitor cells and glomerular repair** **Paola Romagnanin,** University of Florence, Italy
10:10-10:35	**Title: Experimental platforms to address mesangial repair: What has been accomplished** **Jiamin Teng,** Louisiana State University, Health Sciences Center Shreveport, USA
Coffee Break 10:35-10:50 @ Vienna Foyer	
10:50-11:15	**Title: Induced pluripotent and mesenchymal stem cells: Exogenous participation for glomerular repair** **Elba A. Turbat-Herrera,** Louisiana State University Health Sciences Center, USA

Symposium on Immunomodulatory mechanisms underlying the therapeutical effects of amniotic membrane-derived cells

11:15-11:35	**Title: Immunomodulatory mechanisms underlying the therapeutical effects of amniotic membrane-derived cells** **Ornella Parolini,** International Placenta Stem Cell Society (IPLASS), Italy

Track 10: Novel Stem Cell Technologies
Track 16: Tumour science, Apoptosis and Cancer

Session Chair: Paul J. Davis, Albany Medical College, USA

Session Co-Chair: Gary Guishan Xiao, Dalian University of Technology, China

Session Introduction

11:35-11:55	**Activity of nanoparticulate tetrac (nanotetrac) on models of glioblastoma** **Paul J. Davis,** Albany Medical College, USA
11:55-12:15	**Title: Induced pluripotent stem cells as models of human disease: A promising approach for studying Parkinson's disease** **Stephen Lin,** Thermo Fisher Scientific, USA
12:15-12:35	**Title: Regulation of anchorage-independence by splice variants of osteopontin** **Georg F. Weber,** University of Cincinnati, USA
12:35-12:55	**Title: GFP reporter based study identify fibroblast-like cells reprogramming and invasion** **Prabhat Kumar Singhal,** Massachusetts General Hospital, USA
12:55-13:15	**Title: Optimization of cord blood stem/progenitor cells expansion: Human adipose-tissue derived stromal cells in combination with hypoxia effectively support Ex Vivo multiplication of hematopoietic precursors** **Ludmila B. Buravkova,** Institute of Biomedical Problems, Russian Academy of Sciences, Russia
Lunch Break 13:15-14:00 @ Athens Foyer	
14:00-14:20	**Title: Targeting key cancer stem cell pathways overcomes chemoresistance to platinum therapy** **Daniela Dinulescu,** Harvard Medical School, USA
14:20-14:40	**Title: Energy restriction synergizes doxorubicin activity via targeting breast cancer stem cells** **Hany A. Omar,** University of Sharjah, United Arab Emirates
14:40-15:00	**Title: Therapeutic anti-pan HLA-class II monoclonal antibody that directly induces lymphoma cell death via large pore formation.** **Shuji Matsuoka,** Juntendo University School of Medicine, Japan
15:00-15:20	**Title: Global expression analysis of cell lines; What can we learn about in vitro growth?** **Anna Asplund,** Uppsala University, Sweden
15:20-15:40	**Title: Population and family based association study on TPH1, TPH2 and ITGB3 genes indicate serotonergic system involvement in autism spectrum disorder** **Asem Surindro Singh,** National Centre for Biological Sciences, India
Coffee Break 15:40-15:55 @ Vienna Foyer	
15:55-16:15	**Title: The intracellular Na+/H+ exchanger NHE7 effects a novel Na+ but not K+-coupled proton-loading mechanism in endocytosis** **Laurent Counillon,** Université Nice-Sophia Antipolis, France
16:15-16:35	**Title: Can glass be the answer for in-vitro bone differentiation ?** **Ahmed Taher Elserafy,** University of Sharjah, United Arab Emirates
16:35-16:55	**Title: Beta-Catenin Signaling Regulates the Chemotactic Responses of Mesenchymal Stem Cells** **Huanxiang Zhang,** Medical College of Soochow University, China
16:55-17:15	**Title: Collagen 1 and Elastin Genes Expression of Mitral Valvular Interstitial Cells in MicroFiber Reinforced Hydrogel** **Maryam Eslami,** Harvard Medical School, USA
17:15-17:35	**Title: Development and validation of HPLC method for the determination of 5-fluorouracil as intra oral nanogel for oral cancer treatment** **Shalini Gupta,** King George's Medical University, India
18:30-19-30	Cocktails sponsored by **Journal of Cell Science & Therapy @ Athens Foyer**

Barcelona Room

Track 1: Stem Cell & Gene Therapy
Track 4: Current Research

Session Chair: Haval Shirwan, University of Louisville, USA

Session Co-Chair: George G. Chen, The Chinese University of Hong Kong, China

Session Introduction

11:35-11:55	**Title: Chemo-residual triple-negative breast tumor cells exhibit increased metastatic potential** **Robin E. Bachelder,** Duke University Medical Center, USA
11:55-12:15	**Title: Bone marrow cells influences for function of rat decidua** **Viacheslav Mikhailov,** Russian Academy of Sciences, Russia
12:15-12:35	**Title: Kinetic characterization of malate dehydrogenase in normal and malignant human breast tissues** **Mahshid B. Ansari,** Shahid Chamran University, Iran

12:35-12:55	**Title: Harnessing novel biomarkers of human embryonic stem cells for cancer diagnosis and therapy** **John Yu**, Chang Gung Memorial Hospital, Taiwan
12:55-13:15	**Title: Thromboxane in smoking-induced lung carcinogenesis – potential new pathways for intervention** **George G. Chen**, The Chinese University of Hong Kong, China
	Lunch Break 13:15-14:00 @ Athens Foyer
14:00-14:20	**Title: Better Manufacturing Practice for Cell Therapies** **Kevin Murray**, BioSpherix, Ltd, USA
14:20-14:40	**Title: Platelet cell based therapy: an excellent wound healing medicine** **Shivdas G. Nanaware**, D. Y. Patil University, India
14:40-15:00	**Title: Stem cell therapy in cases of retinitis pigmentosa** **Abdelhakim Mohamed Safwat**, Al-AZHAR University, Egypt
15:00-15:20	**Title: Activated leukocytes alter allogeneic multipotent mesenchymal stromal cell functions** **Elena R. Andreeva**, Institute of Biomedical Problems, Russian Academy of Sciences, Russia
15:20-15:40	**Title: Autologus stem cell applications in refractory leg ulcers** **Sribatsa Kumar Mohapatra**, Veer Surendra Sai Institute of Medical Sciences and Education, India
	Coffee Break 15:40-15:55 @ Barcelona Foyer
	Young Research Forum
15:55-16:10	**Title: Novel role for CXCR2 in human pluripotent stem cells** **Ji-Hye Jung**, Korea University, Korea
16:10-16:25	**Title: Hydroxybenzoic acid isomers and the cardiovascular system** **Basmah MH. AlTinawi**, Alfaisal University, Saudi Arabia
16:25-16:40	**Title: Multiethnic triple negative breast cancer comparisons of gene expression shows enrichment of distinct pathways in ALDH1+ compared to CD44+/CD24-/EpCAM+ cancer stem cell populations** **Evelyn M. Jiagge**, University of Michigan Health System, USA
16:40-16:55	**Title: Adipose mesenchymal stem cells and peripheral blood endothelial colony forming cells for tissue engineering** **Daniel Markeson**, University College London, United Kingdom
16:55-17:10	**Title: B-aggressive lymphoma proteins BALs and IFNγ /STAT signaling pathway: New drug targets in highly chemo-resistant tumors** **Rosalba Camicia**, University of Zurich, Switzerland
17:10-17:25	**Title: Modeling renal progenitor development using the zebrafish kidney** **Gary F Gerlach**, University of Notre Dame, USA
17:25-17:40	**Title: Human adipose-derived stem cells obtained from lipoaspirates are highly cytogenotoxic susceptible to hydrogen peroxide** **Alencar Kolinski Machado**, Federal University of Santa Maria, Brazil
17:40-17-55	**Title: On the interpretation of the recent Nobel Prize discovery of the "internal GPS" in the brain and its possible implications for medical treatment** **Chen Shen**, George Washington University, USA
18:30-19-30	Cocktails sponsored by **Journal of Cell Science & Therapy @ Athens Foyer**

(17:00-18:30) Poster Presentations @ Athens Room	**Day 2**	**March 24, 2015**

CST01	**Title: Stem cell in form deprivation myopia (FDM) mice** **Ching-Hua Yeh**, Kaohsiung Medical University, Taiwan
CST02	**Title: Genetic influence of oxidative metabolism on lymphocyte telomerase modulation** **Fernanda Barbisan**, Universidade Federal de Santa Maria, Brazil
CST03	**Title: Low temperature preservation of mesenchymal stromal cells seeded in various scaffolds for tissue equivalent development** **Alexander Petrenko**, Institute for Problems of Cryobiology and Cryomedicine, Ukrain
CST04	**Title: Therapeutic Role of Bone Marrow-Derived Mesenchymal Stem Cells in Cyclophosphamide-Induced Cardiotoxicity in Adult Male Albino Rat: Morphological and Immunohistochemical Study** **Walaa Mohamed Sayed**, Cairo University, Egypt
CST05	**Title: Analysis of AR, ERa, ERb and p63 in the epithelium of ventral prostate submitted to intrauterine protein malnutrition** **Jaqueline C Rinaldi**, Univ Estadual Paulista, Brasil

CST06	**Title: Protective efficacy of carnosic acid against hydrogen peroxide (H_2O_2)-induced oxidative injury in $HepG_2$ cells through SIRT1 pathway** **Jihong Yao**, Dalian Medical University, China
CST07	**Title: Alpha-lipoic acid produces bone-protective effects via modulating Nox4/ROS/NF-kB and Wnt/Lrp5/β-catenin signaling pathways in H_2O_2-treated MC3T3-E1 cells and ovariectomy rats** **Hui-Jun Sun**, Dalian Medical University, China
CST08	**Title: Cytotoxic effects of essential oil and different extracts of Pulicaria gnaphalodes Bioss. on a panel of cancer cells** **Mina Mirian**, Isfahan University of Medical Sciences, Isfahan, Iran
CST09	**Title: Analysis of viability of stromal cell from bovine endometrial tissue cryopreserved with different mediums** **Carolina Nogueira de Moraes**, Universidade Estadual Paulista Júlio de Mesquita Filho, Brazil
CST10	**Title: Analysis of colony-forming unit-fibroblast efficiency from stem cells from umbilical cord equine cryopreserved with different mediums** **Leandro Maia**, Universidade Estadual Paulista Júlio de Mesquita Filho, Brazil
CST11	**Title: Efficiency in production equine induced pluripotency cells (ips) using fibroblasts and umbilical cord mesenchymal stem cells** **Midyan Daroz Guastali**, Universidade Estadual Paulista Júlio de Mesquita Filho, Brazil
CST12	**Title: Epoxomicin affects proliferating neural progenitor cells of rat** **Bahaa Eldin Sayed Ahmed Fouda**, Mansoura University, Egypt
CST13	**Title: Modulation of telomerase gene expression of activated peripheral blood mononuclear cells is influenced by Ala16Val-Sod2 gene polymorphism** **Fernanda Barbisan**, Universidade Federal de Santa Maria, Brazil
CST14	**Title: Comparative Stem Cells Therapy for regeneration of liver fibrosis** **Hamdy Mahmoud Rezk**, Cairo University, Egypt
CST15	**Title: The effect on cell isolation from bone marrow using subsequent mechanical agitations** **Miguel Quevedo**, Vivex Biomedical, USA

E-Posters

Title: Mesenchymal stem cell therapy improves the expression and functionality of tubular protein endocytic receptors in diabetic nephropathy

Giraud-Billoud Maximiliano, Clinica Alemana Universidad del Desarrollo, Santiago, Chile

Title: siRNA Mediated Knock Down of AQP1 Weakens E-cadherin Based Intercellular Adhesion

Darwesh MK Aladin, National University of Singapore, Singapore

Title: Chitosan-collagen scaffolds can regulate the biological activities of adipose mesenchymal stem cells for tissue engineering

Idiberto José Zotarelli Filho, Stanford University School of Medicine, USA

Title: Association of Electro Acupuncture and Dental Pulp Stem Cells from Deciduous Teeth on Severe Chronic Spinal Cord Injury in Dogs: Preliminary Results

César Vinícius Gil Braz do Prado, University of São Paulo, Brazil

Title: MSCs enhance the microtubule network and trafficking in a parkinsonian model

Se Hee Oh, Yonsei University School of Medicine, Korea

Title: Effectiveness of cannabinoids and endocannabinoids on cancer treatment

Panagiotis Zogopoulos, General Hospital of Nikaia-Piraeus "Agios Panteleimon", Greece

Title: Utility of autologus bone marrow stem cells for treatment of chronic leg ulcer

Said M.H.Abdou, Tanta university hospitals, Egypt

Day 3 March 25, 2015

Vienna Room

Keynote Forum

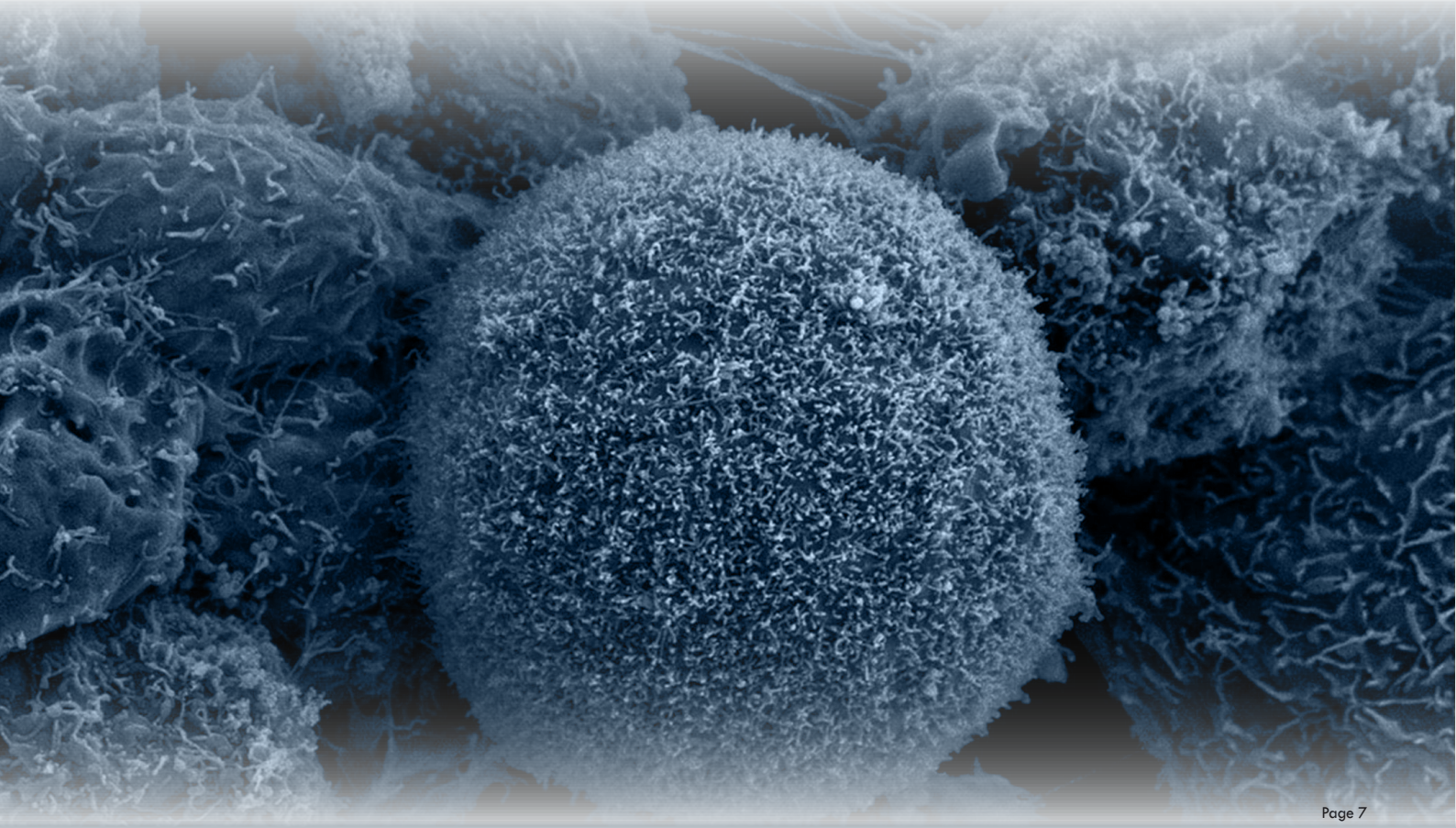
08:30-08:55	**Title: In regenerative medicine does stem cell differentiation really matter?** **Ornella Parolini**, International Placenta Stem Cell Society (IPLASS), Italy
08:55-09:20	**Workshop on Synthesis of scaffold for heart valve based on molecular patterns and study of its effects (Mechanically Biologically Collagen 1 and Elastin Genes Expression) on Valvular Interstitial Cells** **Organizer: Maryam Eslami, Harvard Medical School, USA**

Track 2: Drugs and clinical Developments
Track 14: Signalling in Development
Track 17: Genetics, Bioinformatics and Computational Biology

Session Chair: Diana Anderson, University of Bradford, United Kingdom

Session Introduction

09:20-09:40	**Title: Statistical computing and mathematical modeling for understanding of biological functions using big data** **Kazuo Ishii**, Tokyo University of Agriculture and Technology, Japan
09:40-10:00	**Title: Upstream expansion solutions for stem cells** **Julie R. Murrell**, EMD Millipore, USA
10:00-10:20	**Title: Proximity ligation assays, A method for ultra sensitive protein detection** **Stephen Lin**, Thermo Fisher Scientific, USA
10:20-10:40	**Evidence based theory for an integrated genome regulation in ontogeny and its potential therapeutic targeting** **Michal K. Stachowiak**, State University of New York, USA
	Coffee Break 10:40-10:55 @ Vienna Foyer
10:55-11:15	**Title: BP1, a potential oncogene overexpressed in cancer** **Patricia Berg**, George Washington University Medical Center, USA
11:15-11:35	**Title: β-Human chorionic gonadotrophin (β-HCG total) as a tumor marker in pregnancy** **Manuela Stoicescu**, Oradea University, Romania
11:35-11:55	**Title: Relevance and scope of SMS derived multicellular micro machines (M3) in native tissue reconstruction** **Abdulkader Rahmo**, New Cell Sciences, California, USA
11:55-12:15	**Title: Endothelial cells-derived-iPS: A tool for studying endothelial cell specific gene regulation.** **Nadia Jahroudi**, University of Alberta, Canada
12:15-12:35	**Title: Does hUCB derived Lin-ve stem cells rescue amyloid-β peptide induced mouse model of memory loss** **Akshay Anand**, Post Graduate Institute of Medical Education and Research, India
12:35-12:55	**Title: New Intercellular Surgical Closure System** **Leigh J. Mack**, CIMTESES Foundation, USA
12:55-13:15	**Title: A novel metabolite from an extremophile streptomyces with apoptosis regulator function** **Nasrin Moazami**, Iranian Research Organization for Science and Technology, Iran
	Lunch Break 13:15-14:00 @ Athens Foyer

Award Ceremony

Closing Ceremony