

60th Anniversary of Artificial Cells
In conjunction with
XVI ISBS Int. Symposium Blood Substitutes & Oxygen Therapeutics
V ISNS Nanomedicine Conference

13-15 November 2017, Montreal, Quebec, Canada
www.medicine.mcgill.ca/artcell/meetings/pdf



Photo: McIntyre Medical Sciences Building (center, cylindrical), Faculty of Medicine, McGill University with downtown Montreal in the background. The meeting will be held in a downtown Montreal Hotel.

TOPICS FOR THIS MEETING

(1) 60th Anniversary of Artificial Cell. The year 2017 is the 60th anniversary of the invention of artificial cells at McGill (Chang, 1957 B.Sc. www.medicine.mcgill.ca/artcell/514.pdf Chang 1964 Science). This has evolved into (areas for this meeting) Micro-nano systems, Nanobiotechnology, Nanomedicine, Blood Substitutes, Biosorbents, Bioencapsulation, Biotherapeutics, Drug Delivery Systems etc. This is held in conjunction with the XVI ISBS and V Nanomedicine Conference since all have related interests of artificial cells and of the International Society Artificial Cells, Blood Substitutes & Biotechnology, www.medicine.mcgill.ca/artcell/isabi.pdf

Official Journal of Society: Artificial Cells, Nanomedicine & Biotechnology, an international journal, Taylor & Francis Publisher. <http://www.tandfonline.com/loi/janb20#.VctewUt969Q>
Presenters can submit their papers for publication after peer review.

(2) The biannual ISBS has voted to hold the XVI ISBS in Montreal, Quebec, Canada. Most recent ISBS was 2011 XIII at Harvard, 2013 XIV at Blood Transfusion Institute of China and 2015 XV at Lund Sweden. We welcome experienced pioneers, established researchers, new researchers, students, clinicians, developers, regulators and blood bankers and others. **Areas for this meeting** O₂ carriers, O₂ therapeutics, CO₂ carriers, antioxidants, vasoactivity, stem cells, cord blood, recombinant source, platelet substitutes, safety and regulatory, transfusion medicine and other related topics.

(3) V ISNS Nanomedicine Conference has voted to hold this in Montreal since artificial cell is the forerunner of nanomedicine www.worldscientific.com/doi/suppl/10.1142/8776/suppl_file/8776_chap01.pdf **Areas for this meeting** micro-nano systems, applications in therapeutics, drug delivery, diagnostics and other areas with emphasis on past, present & future perspectives.

VENUE

The 3 meetings will be held in a downtown Montreal hotel where we have reserved meeting facilities and a block of rooms on a first come basis. The city has just renovated the surrounding area as a special tourist district. These include the Palais des congress (Montreal Convention Centre) that connects to the modern underground city of shops and metro; Place Des Art with arts exhibits, musicals and concerts. The Notre Dame Cathedral, the historical part of the city and some of Montreal's international cuisines are within walking distances.

TENTATIVE PRELIMINARY PROGRAM

Nov 13 Monday

Morning: Opening ceremony and the 60th Anniversary of Artificial Cells

Afternoon: Scientific sessions

Nov 14 Tuesday

Morning: Scientific sessions

Afternoon: Scientific sessions

Nov 15 Wednesday

Morning: Scientific sessions

Afternoon: Scientific sessions

ORGANISATION

Local organizer (centre alumni):

TMS Chang, McGill, Chair (McGill 57', 61'.65), F.D'Agnillo, FDA/NIH (McGill 97'), P. Keipert, Sangart (McGill 86'), S. Prakash, McGill (McGill 96'), BL Yu, Harvard (McGill 02')

Artificial Cells & Organs Research Centre and Centre alumni, Departments of Physiology, Medicine & Biomedical Engineering, Faculty of Medicine, McGill University, Montreal, QC, Canada www.medicine.mcgill.ca/artcell

International Organizing committee

Budak G, Bülow L, Chang L, Chang TMS, Chen C, Ergan F, D'Agnillo F, Estep T, Greenburg AG, Jahr S, Hoesli C, Keipert P, Kinsella M, Neufeld R, Piskin E, Poncelet D, Prakash S, Sakai H, Su Z, Yang CM, Yu BL, Yu YT, Zhou H.

International Scientific Advisory Committee

Alayash A, Abuchowski A. H. *Bäumler*, Bian Y, Biro G, Budak G, Bucci E, Bülow L, Burhop K, Chandra R, Chang TMS, Chen C, Chen GC, Cooper C, D'Agnillo F, Dixit V, Estep T, Feola M, Gould S, Greenburg AG0?', Gu KF, Han JQ, Hsia C, Intaglietta M, Jahr S, Juncker D, Keipert P, Kim HW, Kluger R, Kobayashi K, Krafft MP, Liu Q, Liu JX, Lotan M, Ma L, Meßmer K, Mozzarelli A, Maysinger D, Neufeld RJ, Palmer A, Piskin E, Poncelet D, Poznansky M, Prakash S, Privalle C, Pugach I, Rausch C, Riess JG, Sakai H, Shi Z, Simoni J, Selivanov E, Su ZG, Tsai AG, Wei G, Wong B, Wong JT, Xiu RJ, Yang CM, Yu BL, Yu YT, Zafiris G, Zal F, Zapol W, Zhao L, Zhou H, Zhu YJW

Center and center alumni Advisory Committee

Blais, MC, Barre P, Bian YZ, Budd N, Cattaneo MV, Chan G, Chow KM, D'Agnillo F, Daka JN, Zolotarova E, Ergan F, Fustier C, Georges E, Grunwald J, Gu JS, Gu KF, Gu LM, Guo.C, Hoesli C, Jiang WH, Keipert P, Kinsella M, Esquisabel A, Lau A, Lee C, Liu ZC, Lyold-george I, Ma S, Mobed-Miremadi M, Neufeld RJ, Nicolau D, Nelseiski P, Ning J, Nishiya T, Piskin AK, Piskin E, Poznansky M, Prakash S, Rong ZX, Shi Z, Shum-Tim D, Sorrini P, Stefanescu A, Tabata Y, Tso J, Varma R, Wang Y, Wang Z, Wei G, Wong R, Yu YT, Yu BL, Yu, WP. Zhao YQ, Zhu JW,

ABSTRACT SUBMISSION;

Can submit abstract starting now with decision 1 month after receipt of abstract – update possible before deadline. Half page 12 fonts single spacing (Word format only) as email attachment to artcell.med@mcgill.ca with “2017 abstract” under “Subject” of email. Deadline: June 15 2017 but also based on first come basis.

REGISTRATION

Registration **(in US dollars).**

1. Early bird registration: (by 15 July 2017) in U.S. dollars:

Regular: \$300

Industry: \$400

Centre and Centre Alumni: \$250

Students and postdocs: \$200

2. Regular registration fee (July 16-Oct 16 2017) in U.S. dollars:

Regular: \$350

Industry: \$450

Centre and Centre Alumni: \$300

Student and postdocs: \$250

3. Late Registration fee (after Oct 16 and onsite) in U.S. dollars

Regular: \$400

Industry: \$500

Centre and Centre Alumni: \$350

Student and postdocs: \$300

HOTEL ACCOMMODATION

The meeting will be held in a downtown Montreal hotel where we have reserved meeting facilities and a block of rooms **on a first come basis.**

In Canadian dollars (\$1 Canadian = about U.S. \$0.75 variable with time).

Single/double rooms: Cdn\$150/day before September 15 2017 (If after: \$180)

Triple/quadruple rooms \$170/\$190 before September 15 2017 (If after \$200/\$220)

Room Reservation is directly with the hotel using credit card.

PRE-REGISTRATION

Members of the above committees, invited speakers and accepted abstract presenters will not need this step of pre-registration and will receive registration and hotel forms with details in early 2017.

This is needed for others because participation may have to be based on space availability. We shall send those accepted, the registration form with details on how to register and how to reserve hotel

For preregistration, please email the following information to artcell.med@mcgill.ca with “2017 preregistration” in the Subject section of the email.

(Please copy and paste directly in the body of email and input the information)

Full names:

Nationality;

E-mail address

Address: Street, City, Province or state, postal code, Country

Present position: Name of Organization:

Areas of your interest Please indicate one or both

(1) Blood substitutes & oxygen therapeutics

(2) Other areas of Nanomedicine and artificial cells

SPEAKERS (Preliminary list) next 8 pages

Abuchowski, A (U.S.A.)

CEO, Prolong Pharmaceuticals

Clinical Use of a Hemoglobin based oxygen carrier to treat hypoxia

Acharya SA (U.S.A.)

Redesign of EAF PEG Hb to function as a targeted oxygen transfer catalyst under anemia to improve tissue oxygenation of the hypoxic areas: Application in Sickle Cell Anemia.

Alayash A (U.S.A.)

Food and Drug Administration, Bethesda, MD, USA

Oxidative stress/heme mediated toxicity

Barre, P (Canada)

Associate Professor-McGill University, Medical Director-Chronic Kidney Disease Clinic, Montreal General Hospital- Division of Nephrology, L4.521 ,Asscoate member, Artificial Cells & Organs Research Centre

TBA related to treatment of renal failure

H. Bäumlér (Germany)

Institute of Transfusion Medicine, Charité-Universitätsmedizin Berlin, Germany

Hemoglobin-Based Oxygen Carriers HbMP-700 can deliver more than oxygen

Best, Robert (U.S.A.)

Professor of Biomedical Sciences, associate Dean for Faculty Affairs, University of South Carolina School of Medicine

Ethical aspects of Nanomedicine

Bian Y (China)

Consulting Company, Beijing, China (Alumni of Artificial Cells & Organs Research Centre)

Storage and pasteurisation temperature stability of poly-[Hb-CAT SOD CA]: a nanobiotherapeutic

Biro, G (Canada)

Professor Emeritus, University of Toronto

Adverse HBOC endothelial dysfunction synergism: a possible contributor to adverse clinical outcomes

Blais, MC (Canada)

Professor, Montreal University (Alumni of Artificial Cells & Organs Research Centre)

Research on blood groups in animal

Budak, G (Turkey)

President, ISNS International Society for Nanomedical Sciences

Professor, Academy of Nanomedicine and Advance Technology, Ankara, Turkey

Prextrolin®- A new dye molecule discovery and nuclear stain formulation for theranostics

Bülow L (Sweden)

Past president, 2015 ISBS Int Sym Blood Substitutes,

Dept of Pure and Applied Biochemistry, Lund University, Sweden

TBA Protein Engineering for Hemoglobin Based Oxygen Carriers

Buschmann, M (Canada)

Professor, University of Montreal, Montreal, Quebec, Canada

TBA on Nanomedicine

Cabrales, P

University of California at San Diego

Polyhemoglobin effect on microcirculation and hemorrhagic shock

Cattaneo M (U.S.A.)

President, BioVolutions Laboratories Inc., Cambridge, Massachusetts, (Alumni of Artificial Cells & Organs Research Centre)

Continuous Manufacturing of Biotech products

Chandra R (India)

Past president, Int Congress Biotechnology

Professor and Founding Director, Dr. Ambedkar Centre of Biomedical Research, University of Delhi.

Noscapine Research: Past, Present and Future

Chang TMS (Canada)

Honorary President, of ISBS and of ISNS,

Director, Artificial Cells & Organs Research Centre, Faculty of Medicine, McGill University, Canada

1. *Evolution of Artificial Cells to Nanobiotherapeutic, blood substitutes, Bioencapsulation, Hemoperfusion, Nanomedicine, etc.*
2. *Individual Roles of (1) Oxygen carriers, (2) Oxygen carries with antioxidant and (3) Oxygen carries with antioxidant and CO2 transport.*

Chen C (China)

President, Chinese Society of Blood Substitutes,

Vice President Northwest University, Xian, China

Preclinical investigation of Polymerized Porcine Hemoglobin (pPolyHb)

Chen G (China)

Assistant Professor, Blood Transfusion Institute of Chinese Academy of Medical Sciences

(Alumni of Artificial Cells & Organs Research Centre)

Present status of blood substitute research at the Blood Transfusion Institute

Chen GQ (China)

Professor of Microbiology and Biomaterials, Department of Biological Sciences and Biotechnology, School of Life Sciences, Tsinghua University Beijing 100084 China

Drug Targeting Systems Based on PHA Granule Binding Protein PhaP

Cooper C (U.K)

Professor Bulow's session on Protein Engineering for Hemoglobin Based Oxygen Carriers

D'Agnillo F (U.S.A.)

Food and Drug Administration, Bethesda, MD, USA (Alumni of Artificial Cells & Organs Research Centre)

TBA related to regulatory aspects of toxicity and safety of Hemoglobin based oxygen carrier

Daka JN (Canada)

Research Scientist, Radiation Protection Bureau, Health Canada (Alumni of Artificial Cells & Organs Research Centre)

TBA

Dixit V (U.S.A.)

Professor division of Digestive Diseases, Dept of Medicine, Univ California at Los Angeles

(Alumni of Artificial Cells & Organs Research Centre)

TBA

Doctor, Allan (U.S.A.)

Professor of Pediatrics and Biochemistry, Washington University School of Medicine

Pediatric Critical Care Medicine, Saint Louis Children's Hospital, St. Louis, Missouri

ErythroMer (EM), a Nanoscale Bio-Synthetic Artificial Red Cell: proof of concept and in vivo efficacy results

Eidelman D (Canada)

Welcome address, Dean of Medicine, McGill University (Canada)

Welcome address for Faculty of Medicine

Elmer, J (U.S.A.)

Department Chemical Engineering, Villanova, PA, U.S.A.

Prolonging the Shelf Life of Lumbricus terrestris Erythrocrucorin for Use as a Novel Blood Substitute

Ergan F (France)

Speaker and also acting as official French Translator for this meeting

Professor, Universite du Maine, France (Alumni of Artificial Cells & Organs Research Centre)

TBA on enzyme biotechnology

Estep T (U.S.A.)

Chart Biotech Consulting, LLC

Moving HBOCs Forward - Testing Hypotheses in the Clinic

Ferenz, Katja (Germany)

Universitätsklinikum Essen (AöR), Institut für Physiologische Chemie, Hufelandstraße 55

Functionality of albumin-derived perfluorocarbon-based artificial oxygen carriers in the Langendorff-heart"

Gould S (U.S.A.)

Founding President, The Gould Consulting Group LLC

Discussion of clinical trial result

Greenburg AG (U.S.A.)

Past president, ISBS Int Sym Blood Substitutes,
Emeritus Professor of Surgery, Brown University (U.S.A)
Discussion of clinical trial result of Hemoglobin based oxygen carriers

Grunwald J (Israel)

The Israel Institute for Biological Research, Ness-Ziona, Israel, (Alumni of Artificial Cells & Organs Research Centre)
TBA on diagnosis

Gu KF (U.S.A.)

Alumni of Artificial Cells & Organs Research Centre
Feeding Control Strategies for Enzymes and Proteins Production

Guo C (Canada)

Artificial Cells & Organs Research Centre, McGill University, Canada
Immunological study of poly-[Hb-CAT SOD CA]: a nanobiotherapeutic

Hsia C (U.S.A.)

Chairman and CEO, AntiRadical Therapeutics LLC, Sioux Falls, SD., 57107USA
SanFlow is Safer and More Effective Than Fresh Blood to Restore Oxygen Delivery in Hemorrhagic Shock

Hoesli C (Canada)

Department of Chemical Engineering Université McGill University, Associate member of Artificial Cells & Organs Research Centre
TBA on nanomedicine

Huang, Y (Wang, Yupeng ,Yubin Huang*) (China)

Professor, State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, ChangChun 130022, People's Republic of China
Endosome formed by protein-polymer conjugate assembly as oxygen carrier

Intaglietta, M (U.S.A.)

Professor, University of California at San Diego
TBA on microcirculation

Jahr S (U.S.A.)

Professor Emeritus of Anesthesiology David Geffen School of Medicine at UCLA
Hemoglobin glutamer-250 (bovine) in South Africa: consensus usage guidelines from clinician experts who have treated patients

Jiang WH (China)

Associate Professor, Norman Bethune College of Medicine, Jilin University. (Alumni of Artificial Cells & Organs Research Centre)
Hepatoprotective effect of poly-[Hb-CAT SOD CA]: a nanobiotherapeutic

Juncker D (Canada)

Professor of Biomedical Engineering, Micro and Nanobioengineering Laboratory McGill University
TBA on nanomedicine

Kazakov Fidel,(Belarus)

Kiseliova str. 4-24, Minsk, Republic of Belarus, 220029
Anaesthesiologist-reanimatologist,
"9 city clinical hospital", Semashko 8, Minsk,
220116 Minsk, Republic of Belarus
Massexchange devices with uncoated carbon hemosorbents in complex treatment of patients with acute abstinent syndrome based on opiate addiction

Keipert P (U.S.A.)

Consultant & President, Keipert Corp, San Diego, CA, USA (Alumni of Artificial Cells & Organs Research Centre)
Challenges Facing HBOC Development in Trauma - What have we learned to minimize the risk going forward?

Kim Hae Won (U.S.A.)

Department of Molecular Pharmacology, Physiology and Biotechnology
Brown University
TBA Some aspects of Hemoglobin based oxygen carrier

Kinsella M (Canada)

Bioengineering Department, McGill University (Associate member of Artificial Cells & Organs Research Centre)
TBA on nanomedicine

Kirkovski VV (Republic of Belarus)

Professor, the research group of hemo - and lymphosorption, the Belarusian State Medical University, Minsk
"The clinical efficacy of biospecific sorbents"

Kluger R (Canada)

Professor of Chemistry, U of Toronto
Modification of hemoglobin

Komatsu , Teruyuki (Japan)

Department of Applied Chemistry, Faculty of Science and 1-13-27 Kasuga Bunkyo-ku, Tokyo 112-8551, Japan
Hemoglobin-Albumin Cluster "HemoAct™" as an Artificial O₂-Carrier

Kwan D (Canada)

Assistant Professor-Dept. of Biology, Centre for Applied Synthetic Biology, Concordia University
Modification of rbc blood groups for universal donor blood

Li, Pei Li (Pauline) (Hong Kong)

Professor, Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Hong Kong
Tentative title "Polyethyleneimine-based Core-Shell Nanocarriers for Gene Delivery

Liu JX (China)

Secretariat, Chinese Society of Blood Substitutes,
Professor and Interim Director, Blood Transfusion Institute of Chinese Academy of Medical Sciences
Present status of research on blood substitutes in China

Lomis, Nikita^{1,2}, Francis Gaudreault³, Meenakshi Malhotra⁴, Susan Westfall¹, Dominique Shum-Tim⁵ and Satya Prakash (Canada)

¹Biomedical Technology and Cell Therapy Research Laboratory, Department of Biomedical Engineering, ²Division of Experimental Medicine,; ³Human Health Therapeutics, National Research Council Canada, ⁴Department of Radiology, Stanford University School of Medicine, Stanford, CA, , USA; ⁵Division of Cardiac Surgery and Surgical Research, Royal Victoria Hospital, *Development of a novel nanoparticle based therapy for cardiovascular diseases*

Xing Li¹, Sheng Wang¹, Lailiang Ou², Yaoting Yu², Shenqi Wang¹¹ (China)

¹Huazhong University of Science and Technology, Wuhan, China.

²Nankai University, Tianjin, China

A Novel Polystyrene Beads Adsorbents Containing Mesopores and Linear Decapeptide Segments as Ligands for the Removal of β 2-Microglobulin from Human Plasma

Lotan N (Israel)

Emeritus Professor of Biomedical Engineering, Technion-Israel Institute of Technology, Technion City, Haifa, Israel
TBA some aspects on nanobiotechnology

Ma L (U.S.A.)

TBA Some aspects of nano rbc as Hemoglobin based oxygen carrier

Maysinger D (Canada)

Professor, Department of Pharmacology, McGill University
TBA on nanomedicine

Mishra, N (Punjab, India)

Professor, Department of Pharmaceutics, ISF College of Pharmacy, Moga (Punjab)142001
Surface modified microparticulate carriers of Embelin for their beneficial Pharmacological potential in ulcerative colitis

Mobed-Miremadi, M (U.S.A)

San Jose state University, Sa Jose, CA, U.S.A. (Alumni of Artificial Cells & Organs Research Centre)
Legacy of Artificial Cells in Biomedical Engineering Education

Moghtader, F, Aysel Tomak, Hadi M. Zareie, Erhan Piskin (Turkey)

Hacettepe University, Nanotechnology and Nanomedicine Division and Chemical Engineering Department
Bacterial Detection Using Gold Nanorods with or without Bacteriophages by SERS

Neufeld RJ (Canada)

Past President, Bioencapsulation Symposium,
Professor Emeritus of Chemical Engineering, Queens University (Alumni of Artificial Cells & Organs Research Centre)
Navigating the path from milli to micro to nano to molecular encapsulation and delivery of bioactives

Nimesh, S (India)

UGC Assistant Professor, Department of Biotechnology, School of Life Sciences, Central University of Rajasthan, India
Nanotechnology for the treatment of Hypercholesterolemia and related cardiovascular diseases

Olson J (U.S.A)

Professor, Rice University

Professor Bulow's session on Protein Engineering for Hemoglobin Based Oxygen Carriers

Orlowsky, J (Canada)

Professor and Chairman, Department of Physiology, McGill University

Welcome for Department of Physiology

Ou, Lailiang (China)

Nankai University, Tianjin, China

Application of nanostructures in Hemoperfusion

Palmer A (U.S.A.)

Professor and Chair, Dept of Chemical Engineering and Biomolecular Engineering, Ohio State University.

Engineering polymerized hemoglobin size regulates side-effects

Pelletier, P (Canada)

Director of Transfusion Medicine Service, McGill University Hospital Centre designated transfusion center

Faculty of Medicine, McGill University, Montreal, Quebec, Canada

Transfusion related lecture

Peng, Jingtao (China)

Consule General, Chinese Consulate at Montreal

Opening ceremony address

Piskin AK (Turkey)

Professor, Hacettepe University, Ankara (Turkey) (Alumni of Artificial Cells & Organs Research Centre)

TBA on nanobiotechnology

Piskin E (Turkey)

President, Biomaterial and Bioprocessing Congresses,

Hacettepe University and Biyomedtek/NanoBMT, Cyberpark-Bilkent University/ Tekmer-Başkent University, Ankara, Turkey
(Alumni of Artificial Cells & Organs Research Centre)

Engineering of Bone and Cartilage Tissues

Poncelet D (France)

President, International Bioencapsulation Group,

Professor, ONIRIS, UMRS, CNRS, GEPEA, France

Bioencapsulation

Ponka P (Canada)

Professor of Medicine, Associate member of Artificial Cells & Organs Research Centre, McGill University

Iron overload and methods to remove excess iron

Poznansky M (Canada)

First PhD graduate of Chang, Welcome address,

Consulting Inc, Toronto, Ontario, Canada (Canada) (Alumni of Artificial Cells & Organs Research Centre)

Formerly Professor and Director, Robart Institute, University of Western Ontario, Canada

Welcome address for Centre Alumni

Prakash, S (Canada)

Professor, Artificial Cells and Organs Research Centre & Department of Biomedical Engineering, McGill University,

TBA on Artificial Cells

Qi, Yanxin, Yupeng Wang, Yubin Huang*(China)

State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, ChangChun 130022, People's Republic of China

Protein-Resistant Biodegradable Amphiphilic Graft Copolymer Vesicles as Protein Carriers

Quirion, Remi (Canada)

Chief Scientist in charge of all three Quebec Research Councils

Address at the Opening Ceremony

Rausch C (U.S.A. and Hong Kong China)

Newai Corp, Hong Kong

The development and the difficulties as well as the opportunities of blood substitutes

Riabtseva T.V. (Belarus)

Belorussian state medical university, Minsk, Belarus

"Immunomodulation using biospecific sorption and efferent therapy methods"

Robillard, Pierre (Canada)

Medical Director, Hema-Quebec, Montreal, Quebec, Canada
Hemovigilance from an international perspective

Routy, Jean-Pierre (Canada)

Division of Hematology and Chronic Viral Illness Service
Louis Lowenstein Chair in Hematology & Oncology
Professor of Medicine, McGill University
HIV transfusion and early diagnostic perspective in 2017.

Ryabtseva Tatiana Vladimirovna (Republic of Belarus) -

Researcher in the research group of hemo- and lymphosorption, the Belarusian State Medical University Minsk
"Immunomodulation using biospecific sorption and efferent therapy methods"

Sakai H (Japan)

Past President, Japanese Society for Blood Substitutes,
Professor Nara Medical University, Nara, Japan
TBA Some aspects of lipid vesicle Hemoglobin based oxygen carrier

Schmid, H (Germany)

Fachgebietsleiter Nanotechnologie im Produktbereich Energetische Systeme (ES), Fraunhofer-Institut Chemische Technologie (ICT)
Application Possibilities and Selected Examples of Artificial Nanoparticle Systems in Nanomedicine

Scott, M (Canada)

Senior Scientist - Clinical Professor, Canadian Blood Services and University of British Columbia
(1). miRNA-based therapeutics that can either induce tolerance (e.g., preventing autoimmune diabetes in NOD mice) or enhance the inflammatory response to abnormal cells (e.g. in cancer).
(2). Immunocamouflaged Cells: Applications in Transfusion and Transplantation Medicine"

Shen, Yuesheng¹, Geng Niu¹, Yuwei Bai¹, Chao Chen^{1,2}, Hongli Zhu^{1,2}

1.College of Life Science, Northwest University, Xi'an, P. R. China
2.National Engineering Research Center for Miniaturized Detection Systems, Northwest University, Xi'an, P. R. China
Preliminary study on pharmacokinetics of Polymerized Porcine Hemoglobin (pPolyHb)

Shi Zhenwei (China)

Some aspects of hemoperfusion

Shi Z (U.S.A.),

Vice President, Clinical Development, REMD Biotherapeutics Corp, California. (Alumni of Artificial Cells & Organs Research Centre)
A fully human, monoclonal antibody that antagonizes the human glucagon receptor, in experimental treatment of clinical type 1 diabetes.

Shum-Tim (Canada)

Professor of Surgery, Associate member of Artificial Cells & Organs Research Centre, Faculty of Medicine, McGill University
New Application of Nanoparticles in Cardiovascular Diseases

Simoni, J (U.S.A)

Professor, Texas University, Texas.
Requirements for HBOC to be highly effective in the treatment of myocardial ischemia

Song, Bjorn K. (USA)

Efficacy of SANGUINATE™ versus Standard of Care in Three Rat Models of Hemorrhagic Shock
William H. Nugent¹, Ramon F. Cestero², Kevin Ward³, Ronald Jubin⁴, Abe Abuchowski⁴, Bjorn K. Song¹
1. Song Biotechnologies, Baltimore, MD
2. University of Texas Health San Antonio, San Antonio, TX
3. University of Michigan Medical School, Ann Arbor, MI
4. Prolong Pharmaceuticals, South Plainfield, NJ

Speakers for Alayash's session on

Oxidative /heme mediated toxicity

Speakers for D'Agnillo's Session on

Regulatory aspects for Hemoglobin Based Oxygen Carriers

Speakers for Bülow's Session on

Protein Engineering for Hemoglobin Based Oxygen Carriers

Speakers for Intaglietta (and Xiu to confirm) session on
Microcirculation

Speakers for Greenburg et al session on:
clinical trial result of Hemoglobin based oxygen carriers

Städler, B (Denmark)

Interdisciplinary Nanoscience Center (iNANO), Århus University
Bionic Tissue: The assembly of artificial and biological entities into functional tissue

Su ZG (China)

Executive member, Chinese Society for Blood Substitutes
Professor and Chief Scientist, National Key Laboratory of Biochemical Engineering, National Engineering Center for Biotechnology (Beijing), Institute of Process Engineering, Chinese Academy of Sciences
Research on molecular engineering of hemoglobin pegylation

Tajparast F and Mladen I. Glavinović (Canada)

Departments of Civil Engineering and Applied Mechanics and Physiology, McGill University, Montreal, PQ, Canada
Forces acting on objects in nanopores with irregularities

Vandegriff K (U.S.A.)

Hemoglobin Extravasation in the Brain of Rats Exchanged-Transfused with Hemoglobin-Based Oxygen Carriers (HBOC)

Wang, Y (China)

Research staff, 3rd Hospital of Peking University Medical School (Alumni of Artificial Cells & Organs Research Centre)
Nanoencapsulated PLA-nanopolyHb-tyrosinase for melanoma

Wang, Z (Canada)

Experimental Medicine, McGill University, Canada (Alumni of Artificial Cells & Organs Research Centre)
An Isoflurene hemorrhagic shock model

Wollocko, Hanna (U.S.A.)

President and CEO, OXYVITA Inc

Zero-Link Polymerized Hemoglobin (OxyVita®Hb) Stabilizes the Heme Environment: Potential for Lowering Vascular Oxidative Stress

Yang, Bo¹, Li Wang¹, Chao Chen^{1,2}, Hongli Zhu^{1,2} (China)

1.College of Life Science, Northwest University, Xi'an 710069, P. R. China

2.National Engineering Research Center for Miniaturized Detection Systems, Northwest University, Xi'an 710069, P. R. China

pPolyHb protects myocardial H9C2 cell against ischemia-reperfusion injury by regulation of Pink1-Parkin mitochondrial autophagy pathway

Yang CM (China)

Professor and Director Emeritus, Institute of Transfusion medicine, CAMS/PUMC.

Former Director, Chinese Red Cross National Blood Center.

Transfusion Medicine in China

Yu BL (U.S.A.)

Assistant Professor, Mass General Hospital, Harvard Medical School (Alumni of Artificial Cells & Organs Research Centre)

TBA

Yu, Huibin and Professor Shenqi Wang (China)

School of Life Science and Technology, Huazhong University of Science and Technology, Wuhan 430074, China.

Preparation of Zn²⁺ loaded chitosan beads based adsorbent for the removal of human testosterone in plasma

Yu WP (Canada)

President and CEO, Lipont Pharmaceuticals (Alumni of Artificial Cells & Organs Research Centre)

Liposome drug delivery: challenges and opportunities

Yu YT (China)

Past Co -President, Congress Artificial Cells, Blood Substitutes,

Professor and Director Emeritus of Institute of Molecular Biology, Nankai University (China)

(Alumni of Artificial Cells & Organs Research Centre)

TBA immunosorbent hemoperfusion

Zal F (France)

President, HEMARINA S.A. | Aéroport centre | Biotechnopôle |

TBA Some aspects of HEMARINA Hemoglobin based oxygen carrier

Zhang, ZB (United Kingdom)

Past President, President of Symposium on biocompatible capsules (UK)
Professor and Deputy Director of the China Institute, University of Birmingham, Birmingham
Understanding the mechanical properties of cells, microspheres and microcapsules

Zhao, Mengye¹, Chengbin Yan¹, Ying Xiao¹, Chao Chen^{1,2}, Hongli Zhu^{1,2} (China)

1.College of Life Science, Northwest University, Xi'an 710069, P. R. China
2.National Engineering Research Center for Miniaturized Detection Systems, Northwest University, Xi'an 710069, P. R. China
The effect of Polymerized Porcine Hemoglobin (pPolyHb) on hemodynamic stability and oxygen delivery in a rat model of perioperative blood transfusion

Zhao L (China)

Professor, Peking Transfusion Institute, Beijing, China
Antioxidant Properties of Polydopamine Coated bovine Hemoglobin

Zhou, Dongfang, Xing Wei, Yubin Huang*

Assistant Professor, State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, ChangChun 130022, People's Republic of China
A Facile Way to Prepare Functionalized Dextran Nanogels for Conjugation of Hemoglobin

Zhou H (China)

Executive member, Chinese Society of Blood Substitutes,
Director, Peking Transfusion Institute
Construction of Polydopamine Coated bovine Hemoglobin

Zou, Hequn Zou (China)

Vice-president, Chinese Society of Apheresis
Director, Institute of Nephrology and Urology, Southern Medical University
1. Adsorbent based plasmapheresis for autoimmune/inflammation diseases
2. Nanomedicine in the early diagnosis of diabetes.

Zhu, Julia (Canada)

Professor of Chemistry, University of Montreal, Montreal, Quebec, Canada
Making Biomaterials from Natural compounds

Zhu YJW (China)

Secretariat, Chinese Society of Blood Substitutes,
Professor, Northwest University, Xian, China (Alumni of Artificial Cells & Organs Research Centre)
Preclinical investigation of Polymerized Porcine Hemoglobin (pPolyHb)

60^{ième} Anniversaire des Cellules Artificielles
En association avec
XVI ISBS Symp. Int. Substituts sanguins & Oxygénothérapies
et
V ISNS Congrès Mondial de Nanomédecine

13-15 novembre 2017, Montréal, Québec, Canada



*Photo: Tour McIntyre des Sciences Médicales (tour cylindrique centrale)
Faculté de Médecine, Université McGill. Centre-ville de Montréal en arrière-plan.
Le congrès aura lieu dans un hôtel du centre-ville de Montréal*

DOMAINES DU CONGRES

(1) **60^{ième} anniversaire des Cellules Artificielles.** L'année 2017 est le 60^{ième} anniversaire de l'invention des cellules artificielles à l'Université McGill (Chang, Baccalauréat en Sciences 1957 www.medicine.mcgill.ca/artcell/514.pdf, Chang 1964 Science). Ceci a évolué vers (**domaines de ce congrès**) Micro-nano systèmes, Nanobiotechnologie, Nanomédecine, Substituts Sanguins, Adsorbants Biologiques, Bioencapsulation, Biothérapies, Systèmes d'Administration de Médicaments, etc... Ce congrès se déroule en parallèle avec les congrès ISBS XVI et Nanomédecine V puisque ces 3 organisations ont comme centre d'intérêt commun les cellules artificielles ainsi que la Société Internationale sur les Cellules Artificielles, les Substituts Sanguins et la Biotechnologie (www.medicine.mcgill.ca/artcell/isabi.pdf)

Journal officiel de la Société: "Artificial Cells, Nanomedicine & Biotechnology", un journal international, Publication Taylor & Francis. <http://www.tandfonline.com/loi/ianb20#.VctewUt969Q>
Les intervenants pourront soumettre leurs manuscrits pour publication après évaluation par les pairs.

(2) **La société Internationale sur les Substituts sanguins (ISBS) s'est prononcée pour que le congrès ISBS XVI se tienne à Montréal, Québec, Canada.** Les précédents congrès se sont tenus à Harvard (ISBS XIII en 2011), à l'Institut de Transfusion Sanguine de Chine (ISBS XIV en 2013) et à Lund en Suède (ISBS XV en 2015). Nous accueillons des pionniers expérimentés, des chercheurs confirmés, de jeunes chercheurs, médecins, concepteurs, organismes de réglementation, banques de sang et autres. **Domaines de ce congrès** Transporteurs d'O₂ et de CO₂, oxygénothérapies, antioxydants, vasoactivité, cellules souches, sang de cordon ombilical, source recombinante, sécurité et réglementation, médecine transfusionnelle et autres domaines connexes.

(3) **Le Congrès Mondial de Nanomédecine V (ISNS)** s'est prononcé pour que ce congrès se tienne à Montréal puisque les cellules artificielles sont là l'origine de la nanomédecine http://www.worldscientific.com/doi/suppl/10.1142/8776/suppl_file/8776_chap01.pdf. **Domaines de ce congrès** Micro-nano systèmes, applications thérapeutiques, administration de médicaments, diagnostics et autres domaines en mettant l'accent sur le passé, le présent & les perspectives futures.

LIEU DES CONGRES

Les 3 conférences auront lieu dans un hôtel du centre-ville de Montréal où ont été réservés des salles de réunion et un certain nombre de chambres, qui seront attribuées sur la base du premier arrivé, premier servi. La ville de Montréal vient de rénover les alentours pour en faire un quartier touristique. Le Palais des Congrès de Montréal est connecté avec le célèbre réseau souterrain de magasins et le métro de Montréal. La place des Arts propose des expositions artistiques et des concerts. La Basilique Notre Dame, le quartier historique de la ville et les restaurants de cuisine internationale sont à distance de marche.

EBAUCHE DU PROGRAMME PRELIMINAIRE

Lundi 13 novembre

Matinée : Cérémonie d'ouverture et 60^{ième} anniversaire des Cellules Artificielles

Après-midi : Sessions scientifiques

Mardi 14 novembre

Matinée : Sessions scientifiques

Après-midi : Sessions scientifiques

Mercredi 15 novembre

Matinée : Sessions scientifiques

Après-midi : Sessions scientifiques

ORGANISATION

Organisateurs locaux :

TMS Chang 61'(Chair), F.D'Agnillo 97'(FDA/NIH), P. Keipert 86' (Sangart), S. Prakash 96'(McGill),

BL Yu 02' (Harvard)

Centre de Recherches sur les Cellules & Organes Artificiels & Association des Anciens Elèves du Centre, Départements de Physiologie, Médecine & Génie Biomédical, Faculté de Médecine, Université McGill, Montréal, QC, Canada. www.medicine.mcgill.ca/artcell

Comité d'organisation International

Budak G, Bülow L, Chang L, Chang TMS, Chen C, Ergan F, D'Agnillo F, Estep T, Greenburg AG, Jahr S, Hoesli C, Keipert P, Kinsella M, Neufeld R, Piskin E, Poncelet D, Prakash S, Sakai H, Su Z, Yang CM, Yu BL, Yu YT, Zhou H

Comité Consultatif Scientifique International

Alayash A, Abuchowski A, Bian Y, Biro G, Budak G, Bucci E, Bülow L, Burhop K, Chandra R, Chang TMS, Chen C, Chen GC, Cooper C, D'Agnillo F, Dixit V, Estep T, Feola M, Gould S, Greenburg AG, Gu KF, Han JQ, Hsia C, Intaglietta M, Jahr S, Keipert P, Kim HW, Kluger R, Kobayashi K, Krafft MP, Liu Q, Liu JX, Lotan M, Ma L, Meßmer K, Mozzarelli A, Maysinger D, Neufeld RJ, Palmer A, Piskin E, Poncelet D, Poznansky M, Prakash S, Privalle C, Pugach I, Rausch C, JG, Sakai H, Shi Z, Simoni J, Selivanov E, Su ZG, Tsai AG, Wei G, Wong B, Wong JT, Xiu RJ, Yang, CM, Yu BL, Yu YT, Zafiris G, Zal F, Zapol W, Zhao L, Zhou H, Zhu YJW

Comité Consultatif du Centre et de l'Association des Anciens Elèves du Centre

Budd N, Barre P, Bian YZ, Cattaneo MV, Chan G, Chow KM, Cysmir, D'Agnillo F, Daka JN, Zolotarova E, Ergan F, Fustier C, Georges E, Grunwald J, Gu JS, Gu KF, Gu LM, Guo C, Hoesli C, Jiang WH, Keipert P, Kinsella M, Esquisabel A, Lau A, Lee C, Ma S, Lyold-george I, Neufeld RJ, Nicolau D, Nelseiski P, Ning J, Nishiya T, Piskin AK, Piskin E, Poznansky M, Prakash S, Rong ZX, Shi Z, Shum-Tim D, Sorcini P, Stefanescu A, Tabata Y, Tso J, Varma R, Wang Y, Wang Z, Wong R, Yu YT, Yu BL, Zhao YQ, Zhu JW

SOUSSION DES RESUMES

Il est possible de soumettre un résumé dès maintenant. Une décision sera prise dans le mois suivant sa réception et une mise à jour du résumé sera possible jusqu'à la date limite de soumission. Les résumés d'1/2 page, police 12, interligne 1 (format Word uniquement) doivent être soumis sous forme de fichier joint à un courriel à artcell.med@mcgill.ca indiquant en "Objet" du courriel "2017 abstract". Date limite: 15 juin 2017.

PRE-INSCRIPTION (en \$ US)

1. Inscription anticipée (avant le 15 juillet 2017):

Académique: \$300

Industriel: \$400

Centre et Anciens Elèves du Centre: \$250

Etudiants et postdocs: \$200

2. Frais d'inscription (16 juillet – 16 octobre 2017):

Académique: \$350

Industriel: \$450

Centre et Anciens Elèves du Centre : \$300

Etudiants et postdocs: \$250

3. Inscription tardive (après le 16 octobre et sur place) :

Académique: \$400

Industriel: \$500

Centre et Anciens Elèves du Centre : \$350

Etudiants et postdocs: \$300

HOTEL (en \$ CA)

Le congrès aura lieu dans un hôtel du centre-ville de Montréal où ont été réservés des salles de réunion et un certain nombre de chambres, sur la base du premier arrivé, premier servi.

Chambre simple/double: \$150/jour avant le 15 septembre 2017 (après: \$180)

Chambre triple/quadruple \$170-190/jour avant le 15 septembre 2017 (après : \$200-\$220)
(1\$ CA environ 0,80 \$ US, variable).

Les réservations de chambres se font directement auprès de l'hôtel avec une carte de crédit.

PRE-INSCRIPTION

Les membres des différents comités mentionnés ci-dessus, les orateurs invités et acceptés après soumission de résumés n'ont pas besoin de procéder à la pré-inscription. Ils recevront formulaires d'inscription et de réservation d'hôtel début 2017.

Cette étape est nécessaire pour les autres participants pour s'assurer de la disponibilité de places. Cette étape nous permettra de vous envoyer les formulaires d'inscription avec les détails concernant inscription et réservation d'hôtel.

Pour une pré-inscription, envoyer s'il vous plaît un courriel à artcell.med@mcgill.ca indiquant en "Objet" du courriel "2017 preregistration".

(Merci de copier et coller dans le corps du courriel puis saisir l'information)

Nom et prénoms:

Nationalité:

Adresse de courriel:

Adresse: rue, ville, province ou état, code postal, pays

Fonction actuelle: Nom de l'organisme:

Domaines d'intérêt (Indiquer une ou les deux)

(3) Substituts sanguins et oxygénothérapies

(4) Autres domaines de nanomédecine et cellules artificielles

ORATEURS (liste préliminaire, en cours d'élaboration)

Voir pages 4-14