News Release from: BIONET Corp. (Taiwan)

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News Release

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COVID-19 Pandemic Worsens in Asia, Cell Therapy Accelerates! First Multinational Webinar on Stem Cell Therapy for COVID-19 Treatment in Asia. Key scholars from 6 countries and more than 50 clinical cases to share!

Since the outbreak of COVID-19 pandemic, mRNA vaccine, virus testing, and other biomedical technology update and improve in a rapid pace. The speed of cell therapy applications has also been accelerated. Within a short time frame of 18 months, 77 countries around the world have invested in clinical research of utilizing mesenchymal stem cell (MSC) for COVID-19 treatment, and there have already been up to 348 clinical trials. In the past three months, the COVID-19 pandemic has ravaged in Asia, and the number of confirmed patients per day in Indonesia, Malaysia, and Thailand skyrocketed by 8-10 folds. In the face of the high mortality rate, every country has been seeking breakthrough treatments-the compassionate use of MSCs in Thailand and Taiwan is in full swing, Indonesia has submitted an emergency use authorization (EUA) application for cell therapy, and 17 countries have initiated clinical trials. Within a short time, there has been an explosive growth of MSC application for COVID-19 treatment in Asia! This gave birth to the 【Advanced Cell Therapies in the COVID-19 Pandemic / post-Pandemic Era 1 International Academic Forum. BIO Asia-Taiwan online satellite conference on July 21st, we will communicate and share these precious, firsthand clinical experiences with the medical community!

This is the first international academic forum in Asia to discuss the clinical practice of MSC therapy for COVID-19 treatment drawing experience from more than 50 cases. Key scholars from six Asian countries, including Indonesia, Japan, Malaysia, Singapore, Thailand and Taiwan, will join together to share their

personal experience and valuable insights.

Within less than a week after the registration opened, the event not only attracted key opinion leaders in the biomedical fields, but also local health department authorities, from 20 countries including the United Kingdom, the United States, Bangladesh, India, Malaysia, Thailand and others, to gather and learn.

At a time when the pandemic situation escalates in Asia—the number of severe young adult patients increases in Japan; the number of confirmed cases per day exceeds 50,000 in Indonesia; Ho Chi Minh City in Vietnam has become the hardest-hit area; new variant viruses spread across Malaysia and Thailand-- it is crucial to have key experts from multiple countries to share their valuable first-hand clinical experiences and to see the urgency and consensus on utilizing MSC therapy for COVID-19 treatment.

The invited speakers will share the clinical practice of MSC therapy for COVID-19 infection, acute respiratory distress syndrome (ARDS), lung fibrosis, and premature infants with bronchopulmonary dysplasia (BPD). Of the clinical cases that will be presented, approximately 30 cases received MSC units supplied by BIONET Corp. This includes patients from Ramathibodi Hospital, Thailand and many other important medical centers locally and internationally. Chris Tsai, PhD., the Chairman of BIONET Corp., expressed that as BIONET Corp. has invested in the field of MSC for almost 20 years and is the first in Asia to established Mesenchymal Stem Cell Bank, it was possible to offer stable supply of MSC units for treatment at a time that was most urgently needed. BIONET Corp. joint hands with the medical community to provide free-of-charge humanitarian emergency rescue at home and abroad.

Another major theme of the forum is to discuss the application of stem cells in the post-pandemic era. In addition to the current treatment involving critical illness, the prognostic treatment for the large number of COVID-19 patients around the world is a major challenge for future medical care. The speakers of this forum includes doctors from Malaysia, Singapore and Taiwan, who will discuss the wide application of MSC treatment into the fields of regenerative medicine and immuno-modulation, such as for ARDS, Systemic lupus erythematosus (SLE) and premature infants with BPD. The discussion will fully demonstrate the breadth of application of MSC.

In addition to BIONET Corp. and Asian Federation of Biotechnology (AFOB), which has a long history of commitment to the development of the biotechnology, the co-organizers of this international satellite conference include CORDLIFE in Singapore, and StemCell Institute (SCI) in Japan. Similar to BIONET Corp., CORDLIFE and SCI are leading brands in their respective countries and are pioneers in the stem cell biotech industry. All three are also founding members of Asia Pacific Cord Blood Bank Consortium (APCBBC) and have devoted to the promotion of the expansion of cord blood applications, including treatment for leukemia, thalassemia and other conditions. Moreover, back ten years ago, APCBBC also promoted the treatment for cerebral palsy internationally. Such history shows the determination of international involvement and participation of the stem cell industry of Asian countries.

[Agenda]

Advanced Cell Therapies in the COVID-19 Pandemic / post-Pandemic Era

Time: 2021.07.21 /15:40-17:40 Taipei time (UTC+8)

Webinar Link: https://bioasiataiwan.com/en/teacher/detail/945

Organizer: Asian Federation of Biotechnology (AFOB) / Bionet Corp. / Cordlife

Group. / StemCell Institute.

[Topic / Speaker]

■Chairperson:

Japan / Dr. Tokiko Nagamura-Inoue / The Institute of Medical Science, The University of Tokyo



A clinical professor, the director of Department of Cell Processing and Transfusion, the Director of the Institute of Medical Science CORD, and Director of the Clinical Laboratory, all at the University of Tokyo.

- Research field/expertise: Development of umbilical cord-derived MSC banking for clinical use, especially for treatment of severe acute graft-versus-host disease and other inflammatory diseases.

■Moderator:

Taiwan / Professor.Chang-Yao Tsao / MD, PhD, Professor. Internal of Medicine, Chung Shan Medical University, Taichung, Taiwan.



Chief, Center of Cancer cell therapy, Chung Shan Medical University, Taichung, Taiwan Supervisor, Society of Pulmonary and Critical Care Medicine, Taiwan

- Expertise: Cancer therapy, Cell therapy, Ventilator therapy

Speaker

- Dr.Hon-Kan Yip / Professor Level Attending Physician Kaohsiung Chang Gung Memorial Hospital, Taiwan.
- Topic 《Human Umbilical Cord-Derived Mesenchymal Stem Cells Therapy for Acute Respiratory Distress Syndrome》



- Professor-level attending physician in the Department of Cardiology, Kaohsiung Chang Gung Memorial Hospital, with more than 400 journal articles.
- Expertise and research: clinical trial research of stem cell therapy for cardiovascular disease, cerebrovascular stroke, nephropathy, acute respiratory distress syndrome and sepsis; comprehensive heart disease care, complicated coronary interventional cardiac catheterization, and ECMO treatment of cardiogenic shock patients, cardiovascular disease in clinical and translation research.

- ■Thailand / Dr. Sithakom Phusanti / Doctor Of Medicine at Chakri Naruebodindra Medical Institute, Faculty of Medicine Ramathibodi Hospital
- Topic 《Mesenchymal stem cell therapy for severe COVID-19: Sharing experience from Thailand》



- Deputy Director and Chief of Information Officer (CIO) / Physician (Hematologist, Internist)
- Dr. Phusanti specializes in blood and integrated analysis, and recently published 4 COVID-19-related papers, including the incidence of thromboembolism in patients, and invested mesenchymal stem cells in the treatment of severely ill patients with new coronary disease.
- Dr.Kang-Hsi Wu / MD, Vice superintendent Chung Shan Medical University Hospital, Taichung, Taiwan.
- Topic 《Applications of mesenchymal stem cells in immune disorders and lung injury, including severe COVID-19 infection》



- More than 20 years of research experience on mesenchymal stem cells; Pediatric and adult transplant experience; First case of co-transplantation of umbilical cord stem cells and hematopoietic stem cells, supplied by BIONET, in Taiwan with experience published in international journals.
- -More than 100 papers published in SCI journals, 15 of which are related to mesenchymal stem cells.
- Mesenchymal stem cells treatment for severe COVID-19 patients in Taiwan.
- ■Indonesia / Professor Ismail H Dilogo (MD. PhD) /Stem Cell Medical Technology Integrated Service Unit, Cipto Mangunkusumo Central Hospital, Faculty of Medicine Universitas Indonesia, Jakarta, Indonesia.

- Topic 《Umbilical cord mesenchymal stromal cell as critical COVID-19 adjuvant therapy》



- Distinguished Professor Department of Orthopaedic and Traumatology, Cipto Mangunkusumo Hospital-Faculty of Medicine, Universitas Indonesia
- Orthopaedic Surgeon. PhD in Medical Science exchange student di National University of Singapore in 2006. With dissertation about Bone Marrow Stromal Stem Cells (bMSCs) Head of Stem Cells Integrated Medical Service Unit, Cipto Mangunkusumo Hospital, since 2013. Head of Stem Cell and Tissue Engineering Committee, Ministry of Health Republic of Indonesia 2016-2020.
- Published 66 international publication (29 PubMed indexed dan 42 Scopus Indexed) and 34 national publication and holds 4 patent (periarticular external fixation, modified C-clamp, spine distractor dan spine compactor). Received 27 national dan international award.
- Taiwan / Dr. Pei-Chen Tsao / Director of neonatal intensive care unit of Taipei Veterans General Hospital, Taiwan.
- Topic 《The promise of cell therapy for pediatric acute / chronic lung disease: clinical case sharing》



- Pediatric Emergency and Critical Care Researcher at Boston Children's Medical College, Researcher at the Department of Neonatology at Columbia University
- Expertise: Pediatric Thoracic Medicine, Emergency Medicine for Children, Child Critical Care Medicine
- ■Singapore / Professor Phan Toan-Thang / Founding Director and Chief Scientific Officer, CellResearch Corporation, Singapore

- Topic 《Stem Cells Technology 4.0 in Anti-Ageing and Anti-COVID》



- Associate Professor and Principal Investigator of the Wound Healing and Stem Cell Research Group, Department of Surgery, Yong Loo Lin School of Medicine, National University of Singapore.
- Focusing on skin and keloid scar biology. Prof. Phan is author of more than 80 publications in international peer-reviewed journals, has more than 35 granted patents, including the discovery of a novel source of stem cells from the umbilical cord lining membrane with translational potential for regenerative medicine, tissue engineering and cell-based therapy.
- ■Malaysia / Dr. Chin Sze-Piaw / Clinical and Research Advisor

 CYTOPEUTICS & Honorary Fellow of the Centre for Stem Cell Research (CSCR), Faculty

 of Medicine and Health Sciences, University Tunku Abdul Rahman (UTAR), Malaysia
- Topic 《The anti-inflammatory and Immunomodulatory actions of human umbilical cord derived mesenchymal stem cells: Clinical Perspectives》



- Specialist qualifications from the British Royal College of Physicians (MRCP) and Member of the National Heart Association of Malaysia
- Specialty: Heart failure and stem cell therapy. Has led to over 60 publications, his other patents include use of stem cells for severe heart failure, auto-immune disease, prediabetes and diabetes complications, and macular oedema.
- Lately, Dr Chin undertake a large multicentre clinical trial of use of mesenchymal stem cell tratment for acute Graft versus Host Disease (aGVHD).

[Organizer]

AFOB:

Asian Federation of Biotechnology (AFOB) <u>www.afo.org</u> is a non-profit organization established in 2008 and headquartered in Incheon, South Korea. The general objective of the Federation is to promote co-operation, on scientific grounds, between the scientists from academia and industry in Asian region, for the general advancement of biotechnology as an interdisciplinary field of research and as a means of bringing the scientific development to industrial level. AFOB currently has 14 Regional Branch Offices in Bangladesh, India, Indonesia, Japan, Korea, Mainland China, Malaysia, Mongolia, Nepal, Philippines, Singapore, Taiwan, Thailand, and Vietnam to support its activities. As a key member in biotechnology community, AFOB is very concerned about the outbreak of COVID-19. Since 2020, AFOB has organized many online conferences, symposia, and webinars, focusing on COVID-19. The purpose is to help improve scientific research and technology development to overcome the pandemic.

BIONET Corp. :

BIONET Corp. was established in 1999 and has committed the fields of precision medicine and regenerative medicine. BIONET focuses in three areas: "Stem Cell Therapy" " Precision Medicine/Genetic Testing" and "Scientific Informatics". By providing cells, genetic testing, skin care products and other technologies, BIONET serves more than 40% of newborns and 90% of reproductive medicine centers in Taiwan, while expanding services to 17 countries oversea, meeting the health needs of more than 1.4 million customers at different stages in life.

Furthermore, as a pioneer to provide Mesenchymal Stem Cell Banking Service in Asia for domestic and international use. BIONET continues to devote to research and applications in the field of Regenerative Medicine and has gathered 25 patents under its belt to date. BIONET has a rich transplantation experience covering pediatric to adult needs.

Cordlife:

Cordlife Group Limited is a consumer healthcare company catering to the mother and child segment. Established in May 2001 and successfully listed on the Mainboard of Singapore Exchange Trading Limited ("SGX-ST") in 2012, the Group is one of the pioneers in the cord blood banking industry in Asia.

Cordlife is amongst the leading players for private cord blood banking services in all the markets it operates in, namely Singapore, Hong Kong, Malaysia, India, Indonesia and the Philippines. Inhabiting a distinctive niche in the healthcare industry, the Group is one of the foremost private cord blood banks to have gained a solid foothold in Asia. In the last

18 years, Cordlife has dedicated its undertakings to achieve market leadership in the industry. Having built a distinguished brand name, the Group continues to strive for excellence by means of support from its experienced management team, dynamic key executives along with its quality product and service offerings. Cordlife believes the Group has in place a strong foundation for future expansion. •

StemCell Institute(SCI):

Established in Tokyo in August 1999, it is a pioneer of private cord blood banks in Japan and one of the founding members of Asia Pacific Cord Blood Bank Consortium (APCBBC). In 2008, cord blood was used in leukemia transplantation. In 2009, cord blood was used in regenerative medicine for cranial nerve diseases. In 2014, the "Regenerative Medicine Safety Assurance Law" was promulgated in Japan, which comprehensively promoted the development of stem cells from R&D to practical application. SCI was also approved by the Japanese government for specific cell processing. In March 2021, the new cell processing center in Yokohama was also approved. In April 2021, it obtained a technology license from the University of Tokyo and was the first biotechnology company in Japan to launch umbilical cord tissue storage services, and IPO in June in Tokyo.