

16th CONGRESS OF THE “INTERNATIONAL SOCIETY FOR EXPERIMENTAL MICROSURGERY”

22nd-24th JUNE 2023 – Genoa, ITALY

THURSDAY 22

14:30 OPENING OF THE CONGRESS

Congress President & ISEM President welcome

"In Memoriam Professor Istvan Furka (1935-2021)" – N Németh (Hungary)

14:50 SESSION I – “Newly Developed Experimental Models –Translational Research”

CHAIRMEN: *N Németh (Hungary) – M Oltean (Sweden) – RH Tolba (Germany)*

14:55 Investigation of factors influencing the regeneration of vascular anastomoses (Keynote) – N Németh (Hungary)

15:10 3R (Reduce, Replace Refine of Animal) Models in Teaching for Microsurgery (Keynote) - RH Tolba (Germany)

15:25 Effects of multiorgan abdominal ischemic preconditioning on experimental kidney transplantation – JC Abate, I Ivanoff, N Arnal, M Machuca, R Papa-Gobbi, L Vecchio, P Stringa, N Lausada (Argentina)

15:35 Rat model of transplant of the abdominal rectus fascia (TxARF) – J Moreira (Argentina)

15:45 Transplant vasculopathy characterization after aortic transplantation using a full mismatch between donor and recipient strains – R Zahreddine (France)

15:55 Prospection of applied research for hydrogen therapy using pig models – S Iwai, M Sano, E Kobayashi (Japan)

16:05 From bed-to-bench and back again: patient-derived intestinal organoids as avatars for personalized and regenerative medicine (Keynote) – A Costantino (Italy)

16:15 Translational research: present and future (Keynote) – T Luca, S Puleo (Italy)

16:30 **COFFEE BREAK**

17:00 SESSION II – “Bioengineering and Regenerative Medicine-Wound Care and Role of the Lymphatic System”

CHAIRMEN: *E Kobayashi (Japan) - ZJ Zhang (USA) - M Hellström (Sweden)*

17:05 Bioengineering and Regenerative Medicine - with the view points of experimental microsurgery (Keynote) – E Kobayashi (Japan)

17:20 Bioengineered tissue transplantation for novel female infertility treatments (Keynote) – M Hellström (Sweden)

17:35 An early assessment of bioengineered uterus tissue grafts used for partial uterus repair in the sheep model – E Sehic (Sweden)

17:45 Effects of the intraoperative tissue desiccation and the administration of BGP-15 on microvascular anastomoses' regeneration in the rat - LA Fazekas, L Dan, A Peto, D Handari, A Varga, B Barath, AA Matrai, CS Filler, T Juhasz, IK Bacskay, N Nemeth (Hungary)

17:55 Uterus bioengineering: the creation of an acellular primate uterus scaffold – L De Miguel-Gomez, E Sehic, J Ahlstrom, M Oltean, M Brannstrom, M Hellstrom (Sweden)

18:05 New concepts in wound management and wound healing products (Keynote) – T Cannavale e D Romano (Italy)

18:20 Targeting cell stress responses to mitigate tissue injury and promote regeneration (Keynote) – ZJ Zhang (USA)

18:45 OPENING CEREMONY – *Welcome Messages*

City Hall, Region, University, Hospital, Regional Association of Physicians

Announcement of “*Sun Lee Award*” and “*Lars Erik Gelin Award*” winners

19:00 Ketevan Abiatari & Angelica Foschi *WELCOME CONCERT*

19:45 *WELCOME COCKTAIL*

FRIDAY 23

08:30 SESSION III – “Advances in organ and tissue transplantations”

CHAIRMEN: *W Li (China) - M Oltean (Sweden) - S Yagi (Japan)*

08:35 Biomarkers after organ transplantation: Recent developments and continuing needs (Keynote) – M Oltean (Sweden)

08:50 Microsurgery and experimental solid organ transplantation (Keynote) – P Stringa (Argentina)

09:05 Following-up blood flow, microcirculatory and micro-rheological alterations during the early wound healing phase of local and rotated musculocutaneous flaps in the rat – G Kincses, AO Flasko, LA Fazekas, A Varga, AA Matrai, XL Nguyen, K Barabasi, N Nemeth

09:15 Road map for learning the mouse orthotopic liver transplantation technique – K Tanaka (Japan)

09:25 Intestinal autophagy and apoptosis during static cold storage with and without luminal preservation - J Bagge, A Casselbrant, M Hellström, M Oltean (Sweden)

09:35 Effect of mTOR inhibitor on liver regeneration after hepatectomy and partial liver transplantation – M Hirata (Japan)

09:45 Clinical and experimental microsurgery in liver transplantation (Keynote) - S Yagi (Japan)

10:00 **COFFEE BREAK**

10:30 SESSION IV – “Ischemia-reperfusion in Microsurgery – Technological biomedical innovations”

CHAIRMEN: *A Ballestín (France) - S Puleo (Italy) - P Stringa (Argentina)*

10:35 Microsurgical free tissue transfers, ischemia-reperfusion injury and how adjuvant therapies can improve the results (Keynote) – A Ballestín (France)

10:50 Beneficial effect of PACAP 1-38 and BGP-15 on ischemia-reperfusion injury of groin flaps in the rat – AO Flasko, LA Fazekas, A Peto, A Varga, AA Matrai, WM Al-Smadi, D Reglodi, IK Bacskay, T Juhasz, N Nemeth (Hungary)

11:00 Optimizing machine perfusion protocols to enable ex-situ organ treatment – D Dondossola (Italy)

11:10 Acute microcirculatory hemorheological and metabolic effects of severe renal ischemia-reperfusion and ischemic pre-conditioning in the rat – DM Adorjan, L Fazekas, A Varga, AA Matrai, K Barabasi, K Peto, N Nemeth (Hungary)

11:20 Impact of postoperative ischemia after neuro-oncological resective surgery (Keynote) – A Ballestín (France)

11:35 SESSION V – “Robotic Microsurgery and Artificial Intelligence (AI) Assisted Microsurgery”

CHAIRMEN: *L De Mattos (Brazil) – F Boccardo (Italy)*

11:40 Transoral Laser Microsurgery Technologies: The past, the present and the future (Keynote) – L De Mattos (Brazil)

11:55 Robotic Intravenous Access (Keynote) – M Koskinopoulou (Greece)

12:10 Videomics of the Upper Aero-Digestive Tract (Keynote) – MA Azam (Pakistan)

12:25 Novel Technologies for Microsurgery Robots (Keynote) – A Gunalan (India)

12:40 Autonomous Robotic System for Laser Microsurgery (Keynote) – S Li (China)

12:55 Protecting Users and Data through Zero Trust security solutions (Keynote) – L Gambella (Italy)

13:10 Microsurgical robot experience: from pre-clinical studies to clinical cases (Keynote) – G Menichini_(Italy)

13:25 **LUNCH – ISEM BOARD**

14:30 SESSION VI – “Research and New Challenges in Lymphology and Lymphatic Microsurgery”

CHAIRMEN: *M Amore (Argentina) – E Dimakakos (Greece) – S Michelini (Italy)*

14:35 New concepts of genetics in Lymphology (Keynote) – S Michelini (Italy)

14:50 Anatomical Researches in Lymphology (Keynote) – M Amore (Argentina)

15:05 3D Ultrasonography in Lymphology (Keynote) – M Cestari (Italy)

15:20 Lymphatic system and the kidney: basic researches and clinical implications (Keynote) – D Roccatello (Italy)

15:35 Clinical Lymphology (Keynote) – E Dimakakos (Greece)

15:50 The Use of Fluorescence in Lymphatic Microsurgery (Keynote) – S Dessalvi (Italy)

16:05 Research and New Challenges in Neonatal and Pediatric Lymphology (Keynote) – C Bellini (Italy)

16:20 New educational challenges in Lymphology (Keynote) – E Stasi (Italy)

16:35 **COFFEE BREAK**

17:05 SESSION VII – “Training and Education in Microsurgery”

CHAIRMEN: *Y Akelina (USA) - E Montero (Brazil) - N Németh (Hungary)*

17:10 The importance of Microsurgery in my surgical career (Keynote) – A Di Cataldo (Italy)

17:25 News from Microsurgery Lab Columbia University; training more and more transplant surgeons! Virtual Micro course: Utopia and Reality? (Keynote) – Y Akelina (USA)

17:40 General surgery and microsurgery education activities for Japanese Veterinary Students - S Iwai, E Kobayashi (Japan)

17:50 Debrecen Medical Students' Surgery Club: an extracurricular manual skill development activity and a contest of basic microsurgical performance – A Varga, NJ Nellamkhuzi, LA Fazekas, AA Matrai, T Lesznyak, E Vanyolos, N Nemeth (Hungary)

18:00 A learning curve for orthotopic liver transplant microsurgery in mice – K Tanaka (Japan)

18:10 Virtual Reality in Microsurgery Training (Keynote) – RH Tolba (Germany)

18:25 Microsurgery education and transplant model in small animals (Keynote) – E Montero (Brazil)

18:40 Animal models and education in experimental microsurgery (Keynote) – N Lausada (Argentina)

19:00 **ISEM GENERAL ASSEMBLY**

20:30 – 20:45 **GALA DINNER** – (Announcement of “Robert Zhong Award” and “Best Abstract Award” winners)

SATURDAY 24

(Open Coffee)

08:30 SESSION VIII – “Translational Researches in Lymphology”

CHAIRMEN: CC Campisi (Italy) - E Dimakakos (Greece) – A Macciò (Italy)

08:35 A long surgical career in Lymphology and Microsurgery (Keynote) – C Campisi (Italy)

08:50 Clinical implications of pathological anatomical findings in lymphology (Keynote) – V Vellone (Italy)

09:05 Update in Lymphatic Scintigraphy and the use of SPET-CT (Keynote) – G Villa (Italy)

09:20 Aligned nanofibrillar collagen scaffolds implantation (BioBridge™) after popliteal lymphnode excision in rabbits – JL Campos Sanchez (Spain)

09:30 From bench to bedside in microsurgical and mini-invasive treatment of lymphedema (Keynote) – CC Campisi (Italy)

09:45 Microsurgical prevention of arm lymphedema in ALD for breast cancer – P Fregatti, F Murelli, F Depaoli, C Cornacchia, D Friedman (Italy)

09:55 Patient with lymphedema: which possibilities of treatment nowadays based on translational researches? (Keynote) – F Boccardo (Italy)

10:10 SESSION IX – “The Official ISEM Journal European Surgical Research – Tips from the Editorial Board”

CHAIRMEN: F Dor (United Kingdom), M Oltean (Sweden), RH Tolba (Germany)

10:15 Getting your paper published - an editor's perspective – F Dor (United Kingdom)

10:30 Piecing it together: practical tips on writing a manuscript – M Oltean (Sweden)

10:45 How to review a manuscript – RH Tolba (Germany)

11:00 SESSION X – Experimental models, Training, New technologies, Clinical and Translational Microsurgery

CHAIRMEN: S Dessalvi (Italy) - N Lausada (Argentina) - R Gabata (Japan)

11:05 Routine use of ICG to enhance operative safety in emergency laparoscopic cholecystectomy: an observational prospective study – A Pesce, N Fabbri, CV Feo (Italy)

11:15 Spatiotemporal transcriptomics analysis of central venous stenosis suggests TNF- α as a potential therapeutic target in CKD rats – S Lotfollahzadeh (USA)

11:25 Our experience in establishing the rat liver transplantation model at Kanazawa University – K Katano (Japan)

11:35 Hemodynamic, hemorheological and morphological comparison of various microsurgically created arterio-venous shunts as experimental heart failure models in rats – LA Fazekas, B Bernat, B Barath, A Varga, AA Matrai, O Shaked, OP Fiebai, WM Al-Smadi, CS Filler, T Juhasz, D Priksz, B Juhasz, Z Szilvassy, N Nemeth (Hungary)

11:45 Microsurgical arterio-venous malformation model on the saphenous vessels in the rat – WM Al-Smadi, LA Fazekas, A Varga, AA Matrai, S Aslan, B Bernat, AES Beqain, MQM Al-Khafaji, D Priksz, T Juhasz, Z Szilvassy, N Nemeth (Hungary)

11:55 Training for microsurgery and steps to clinical practice – Role of ISEM Japan Chapter – R Gabata (Japan)

12:05 Experimental microsurgery course oriented to solid organ transplantation – N Lausada, RJ Serradilla, J Minneto, D Abaca, H Reijenstein, AA Moreno, P Stringa, G Zalazar, S Nahirñak, M Dip, C Raimondi, O Inventarza, OF Hernández (Argentina)

12:15 Brain death and intestinal transplantation: results of an experimental model in rats – L Vecchio Dezillio, I Ivanoff Marinoff, JC Abate, M Rumbo, P Stringa, N Lausada (Argentina)

12:25 Regenerative technologies in skin lesions - Human skin bioprinting systematic review - J Jachimczyk, M Kołodziej, U Janiuk (Poland)

12:35 **Final greetings - END OF THE CONGRESS**