



**Programme of the XIV International Symposium on Flower Bulbs and Herbaceous Perennials, 14-19 April 2024, Warsaw, Poland**  
**Venue: Warsaw University of Life Sciences, Crystal Hall**  
**166 Nowoursynowska St., 02-787 Warsaw**

Sunday, April 14 <sup>th</sup> , 2024	17.00-20.00	WELCOME RECEPTION
Monday, April 15 <sup>th</sup> , 2024	8.30-9.30	REGISTRATION
	9.30-10.15	OPENING CEREMONY
	10.15-12.00	GENERAL SESSION <b>Chairperson: Margherita Beruto</b>
	10.15-10.40	30 years for geophyte production in changing climate – where science meets technology <i>by Rina Kamenetsky-Goldstein</i> (ARO, The Volcani Center, Bet-Dagan, Israel)
	10.40-11.05	Biotechnology in the breeding of ornamental geophytes <i>by Ki-Byung Lim</i> (Kyungpook National University, Daegu, Korea)
	11.05-11.30	Production and breeding of bulbous plants and herbaceous perennials in Poland <i>by Dariusz Sochacki</i> (Warsaw University of Life Sciences, Poland) <i>and Tomasz Michalik</i> (Vitroflora, Poland) co-author: Jadwiga Treder
	11.30-11.55	How can we plant more flower bulbs into the landscape? <i>by William B. Miller</i> (Cornell University, Ithaca, NY, USA)
	12.00-12.45	COFFEE BREAK
	12.45-14.30	SESSION 1 - Propagation, cultivation and forcing <b>Chairperson: William B. Miller</b>
	12.45-13.10	<b>Key-note lecture:</b> Micropropagation of ornamental geophytes: a useful approach for development and valorization <i>by Margherita Beruto</i> (Chair ISHS Division Ornamental Plants, Italy) co-authors: Sara Yasemin, Serena Viglione, Basar Sevindik
	13.10-13.25	<i>In vitro</i> techniques for tulip micropropagation, virus eradication and tetraploid induction <i>by Małgorzata Podwyszyńska</i> (The National Institute of Horticultural Research, Skierniewice, Poland) co-author: Dariusz Sochacki
	13.25-13.40	A new nursery system for the production of high-quality propagating tubers of <i>Zantedeschia</i> in the Netherlands <i>by Natalia Moreno-Pachon</i> (Wageningen University and Research, Horticulture and Flowerbulbs, Bleiswijk, Netherlands) co-authors: Paul van Leeuwen, Arca Kromwijk, Paul Ruigrok
	13.40-13.55	An indoor cultivation system for the production of virus free lilies in the Netherlands. Turning lily cultivation outside in <i>by Paul Ruigrok</i> (Wageningen University and Research, Horticulture and Flowerbulbs, Bleiswijk, Netherlands) co-authors: Casper Sloopweg, Natalia Moreno-Pachon

	13.55-14.10	Herbaceous perennial trials at Colorado State University by <i>Chad Miller</i> (Colorado State University, Fort Collins, USA) co-author: David Staats
	14.10-14.25	Effects of supplemental lighting using LED's on the quality of tulips forced hydroponically by <i>Jadwiga Treder</i> (The National Institute of Horticultural Research, Skierniewice, Poland) co-authors: Waldemar Kowalczyk, Dariusz Sochacki, Ewa Skutnik, Julita Rabiza-Świder, Aleksandra Staniuk, Agnieszka Połec
	<b>14.30-15.30</b>	<b>LUNCH</b>
	<b>15.30-16.40</b>	<b>SESSION 2 – Biodiversity, genetics, biotechnology and breeding</b> <b>Chairperson: <i>Małgorzata Podwyszyńska</i></b>
	15.30-15.55	<b>Keynote lecture:</b> Developments in breeding of bulbous crops from a genetics and genomics perspective by <i>Paul Arens</i> (Wageningen University and Research, Wageningen, Netherlands) co-authors: Giorgio Tumino, Danny Esselink, Jan van Kan, Richard Immink
	15.55-16.10	Distant hybridization of <i>Hemerocallis</i> with <i>Eremurus</i> and <i>Lycoris</i> by <i>Yi Lv</i> (Beijing Forestry University, Beijing, China) co-authors: Yike Gao, Yuxuan Zhou, Ying Wang, Yuxuan Cui, Jing Zhou
	16.10-16.25	Intergeneric hybridization and endosperm culture of <i>Lycoris</i> by <i>Yike Gao</i> (Beijing Forestry University, Beijing, China) co-authors: Yuxuan Zhou, Yi Lv
	16.25-16.40	Breeding <i>Impatiens</i> for resistance to the fungal disease impatiens downy mildew ( <i>Plasmopara obducens</i> ) by <i>Mark P. Bridgen</i> (Cornell University, Ithaca, NY, USA) co-authors: Victor Zayas, James Keach
	<b>16.40-17.10</b>	<b>COFFEE BREAK</b>
	<b>17.10-18.10</b>	<b>ISHS BUSINESS MEETING</b>
<b>Tuesday, April 16<sup>th</sup>, 2024</b>	<b>8.30-17.00</b>	<b>TECHNICAL TOURS (tours A, B, C)</b>
	<b>19.00-23:00</b>	<b>GALA DINNER (Villa Intrata by the Royal Palace in Wilanów)</b>
<b>Wednesday, April 17<sup>th</sup>, 2024</b>	<b>9:30-11:10</b>	<b>SESSION 3 - Flowering, postharvest and storage physiology</b> <b>Chairperson: <i>Rina Kamenetsky-Goldstein</i></b>
	9.30-9.55	<b>Keynote lecture:</b> Long term storage of cut flowers by <i>John M. Dole</i> (North Carolina State University, Raleigh, NC, USA) co-authors: Nathan Jahnke, Jennifer Kalinowski
	9.55-10.10	Balancing of some endogenous phytohormone on growth and development of sacred lotus ( <i>Nelumbo nucifera</i> Gaertn.) after spraying of GA <sub>3</sub> application by <i>Panupon Hongpakdee</i> (Khon Kaen University, Khon Kaen, Thailand) co-authors: Sornnarin Suangto, Chaiartid Inkham, Soraya Ruamrungsri
	10.10-10.25	Reblooming in perennials: bearded iris ( <i>Iris germanica</i> ) as a model by <i>Zhuping Fan</i> (Leibniz Institute of Vegetable and Ornamental Crops, Grossbeeren, Germany and Beijing Forestry University, Beijing, China) co-authors: Yike Gao, Rong Liu, Chunjing Guan
	10.25-10.40	De-vernalization – when heat erases flower induction by <i>Michele Zaccai</i> (Ben Gurion University, Beer Sheva, Israel) co-authors: Hagai Yasuor, Ran Bar, Yair Nishri, Silit Lazare
	10.40-10.55	Simulated spring freezes cause bud abortion and receptacle necrosis in <i>Paeonia lactiflora</i> 'Festiva Maxima' by <i>John M. Dole</i> (North Carolina State University, Raleigh, NC, USA) co-authors: Nathan Jahnke, David Livingston III, Tan Tuong
	10.55-11.10	Identification of below-ground phenotypic markers for early flowering (Cycle 1) <i>Gladiolus hybridus</i> : daughter corm and cormel production, cormel types by <i>Neil O. Anderson</i> (University of Minnesota, St. Paul, MN, USA)

	<b>11.10-11.40</b>	<b>COFFEE BREAK</b>
	<b>11.40-13.10</b>	<b>POSTER SESSION</b>
	<b>13.10-14.20</b>	<b>SESSION 4 - Plant protection</b> <b>Chairperson: <i>Paul Arens</i></b>
	13.10-13.35	<b>Keynote lecture:</b> Integrated management of diseases on ornamental geophytes and herbaceous perennials <i>by Gary A. Chastagner</i> (Washington State University, Puyallup, WA, USA) co-author: Hanu Pappu
	13.35-13.50	Advances in powdery mildew and rust control for ornamental perennial crops <i>by Mary Hausbeck</i> (Michigan State University, East Lansing, MI, USA) co-authors: Ethan Tippet, Carmen Medina-Mora, Cheryl Engfehr, Blair Harlan
	13.50-14.05	How to deal with non-persistently aphid-transmitted bulb flower viruses? <i>by Martin Verbeek</i> (Wageningen University and Research, Wageningen, Netherlands) co-authors: Ineke Stijger, Iris Stulemeijer, Frank Kreuk
	14.05-14.20	Characterization of biological and synthetic microstructures of <i>Zantedeschia</i> leaf surface, and their interaction with <i>Pectobacterium</i> <i>by Iris Yedidia</i> (ARO, The Volcani Center, Bet-Dagan, Israel) co-authors: Nofar Hod, Preeti Patel, Maya Kleiman
	<b>14.30-15.30</b>	<b>LUNCH</b>
	<b>15.30-16.25</b>	<b>SESSION 5 - Using in landscape and for other purposes</b> <b>Chairperson: <i>Gitana Stukeniene</i></b>
	15.30-15.55	<b>Keynote lecture:</b> Perennials and geophytes selection for therapeutic horticulture <i>by Bożena Szewczyk-Taranek</i> (University of Agriculture in Krakow, Poland)
	15.55-16.10	Evaluation of growth and flowering of ornamental grasses and other perennials planted in a city parks, the case of Rabka-Zdrój <i>by Anna Kapczyńska</i> (University of Agriculture in Krakow, Poland)
	16.10-16.25	Analysis of decorativeness and variability of species in “perennial meadows” of a revitalized Park Krakowski <i>by Monika Cioć</i> (University of Agriculture in Krakow, Poland) co-author: Przemysław Gołębiowski, Marcin Gajda, Bożena Pawłowska
	<b>16.30-17.00</b>	<b>CLOSING CEREMONY</b>
<b>Thursday, April 18<sup>th</sup>, 2024</b> <b>Friday, April 19<sup>th</sup>, 2024</b>		<b>POST-SYMPOSIUM TOUR</b> 1) Vitroflora – close to Bydgoszcz (herbaceous perennials – young plants, tissue culture and breeding) 2) Królik - close to Poznań (reproduction of ornamental geophytes in the field plantations and forcing for cut flowers under covers) 3) Tulipany Polskie (Polish Tulips) Orłowscy - close to Kalisz (tulips forcing for cut flowers hydroponically)