

– Global Bioeconomy Alliance (GBA) Conference –
:: Key Technologies in Bioeconomy - KTB2024 ::
São Paulo and Ubatuba/SP/Brazil, September 30th - October 4th, 2024

Monday, Sep. 30th. -	
8h30-9h00	Welcome coffee
9h00-9h30	Opening Ceremony -
	Unesp dirigents and Global Bioeconomy Alliance representatives
	Prof Edson Botelho Unesp Research Office
	Prof. Maria Valnice Boldrin Unesp Graduate Office
	Prof José Celso Freire Unesp International Relations Office
	Prof. Volker Sieber Global Bioeconomy Alliance President
9h30-10h00	Opening Lecture - <i>Chairperson: Volker Sieber</i>
	Christian Patermann - Former Research Director, European Union “Bioeconomy – Recent Activities in Europe, the Global South and Beyond”
10h00-12h00	Building collaborations with global impact in Bioeconomy (Part 1) <i>Chairpersons: José Celso Freire Jr. and Bjarke Christensen</i>
10h00	Andreas Worberg - Novo Nordisk Foundation/Biosustain Institute
10h30	André Pick (CASCAT) - “Being a startup in a global bioeconomy”
10h45	Guilherme Wolff Bueno (UNESP Innovation and Business incubator Aquarium of Ideas) & Danilo Proença (Biomonetize) - “Innovation Ecosystem for the Development of Bioeconomy at UNESP”
11h00	Ary Albuquerque (Public Affairs Manager, LATAM - Novonesis)
11h15	Puja Thiel (Exeter University) - “How to create impact in the bioeconomy - A British view”
11h30	Rosana Santos (Institute E+ Energy Transition - Brazil) - “Climate Urgency as the spark of a new cycle of development and equity”
11h45	Discussion
12h00-13h30	lunch

13h30-15h15	Governmental Perspectives on Bioeconomy of different world regions <i>Chairpersons: Danielle Pedrolli and Gary Schenk</i>
13h30	Johannes Wahner (Consul for Education & Science / German General Consulate São Paulo)
13h45	Claudia Bärmann Bernard (Bavarian Representative for Brazil) - “The Bavarian Bioeconomy Strategy”
14h00	Levi Pompermayer - Secretary of Science, Technology and Innovation of Sao Paulo
14h15	Alex Fedozzi Vallone (Institute for Technological Research - Strategic Affairs Coordinator) "Leveraging the Triple Helix through Open Innovation"
14h30	Alexandre Hornemann (Commercial Advisor, Food & Agriculture at The Trade Council of Denmark in Latin America) - “A Tripartite Agreement on a Green Denmark”
14h45	Badu Mercy - KNUST - Kwame Nkrumah University of Science and Technology - Ghana - "Biodiesel Production: The Ghanaian Contest"
15h00	Discussion
15h15	coffee break
15h30-16h45	Funding Opportunities for Bioeconomy <i>Chairpersons: Guilherme Nogueira and Celso Marino</i>
15h30	Carlos Graeff (São Paulo State Funding Agency - FAPESP)
15h45	Marcio Weichert - Head of Program / German Center for Research and Innovation São Paulo (DWIH São Paulo)
	Christina Peters – Director Latin American Office / German Research Foundation (DFG)
	Francine Camelim, Representative in São Paulo / German Academic Exchange Service (DAAD)
16h00	Torben Borchert (Novo Nordisk Foundation) - <i>The Novo Nordisk Foundation and its engagement in bioeconomy</i>
	Announcement of the Global Bioeconomy Award
16h20	Discussion

16h30-18h30	Building collaborations with global impact in Bioeconomy (Part 2) <i>Chairpersons: Dulce Silva and Ana Jacobus</i>
16h30	Vanderlan Bolzani (Unesp) - “INCT-BioNat: Research Networking for valorizing natural products from Brazilian biomes”
16h45	Priscylla Moro (BRAZBIO) - “Bioeconomy: how to achieve a positive impact in a challenging land”
17h00	Bruno Cardoso (Volkswagen - Brazil) - “Application of sustainable materials in automotive plastic parts”
17h15	Danilo Yamane (Quanticum) - “Terrus Citrus – Scientific Entrepreneurship Applied in the Sustainable Orange Juice Chain”
17h30	Lennon Franciel Neto (Dexco - Brazil) -
17h45	Juliana Viana (Suzano Celulose e Papel) - “Suzano: How we cooperate with the innovation ecosystem”
18h00	Discussion
18h15-19h30	Networking with food served

Tuesday, Oct. 1st.	
7h30-13h00	Visit to CNPEM - National Research Center for Energy and Materials - Biorenewables and Synchrotron Light (Sirius) Laboratories - Campinas, SP
13h00	Departure to Ubatuba, SP
	Parallel Session
8h30-11h00	Erasmus Mundus Master in Bioeconomy and Sustainability - BIOSUS - Proposal discussion
11h00-11h30	GBA - Global Bioeconomy Alliance: formal Board Meeting
11h30-13h00	Strategic GBA Meeting, working lunch
14h30	Departure to Ubatuba, SP

Wednesday, Oct. 2nd.

Session 1 - Bioeconomy - how to achieve impact

Chairpersons: Gary Schenk and Puja Thiel

9h00-9h30	Welcome notes
9h30-10h00	Invited Lecture 1 - Sebastian Goerg (TUM) - "Purchase of bio-based products: Personal and regional factors"
10h00-10h30	Invited lecture 2 - Danielle Pedrolli (UNESP) - "Engineering biological systems for the production of biocompounds and biosensors"
10h30-11h00	coffee break
11h00-12h00	Round Table 1 - Bioeconomy and how to achieve impact
	• Kelly Dusan-Medina (UNESP) - "Life cycle assessment of oligosaccharide production from spent coffee grounds pretreatment" • Patrick Veitl (TUM) - "The Role of Biomass and other Carbon Sources in the Sustainable Transformation of the Chemical Industry" • Tristan Brown (SUNY College of Environmental Science & Forestry) "The Climate- and Environmentally-Beneficial Valorization of Tree Waste in New York State" • Q&A

Session 2 - Sustainable Agriculture and Food Production

Chairpersons: Dulce Silva and Gustavo Metzker

15h30-16h00	Invited lecture 3 - Rouverson P. Silva (UNESP) - "The Role of Bioeconomy in Mitigating Harvest Losses: Applications of Artificial Neural Networks and Remote Sensing for Sustainable Food Production"
16h00-17h00	Round table 2 - Agriculture production
	• Robert Henry (UQ) - "Engineering Plants to Replace Fossil Carbon" • Ricardo Polanczyk (UNESP) Fapesp Center for Engineering - Plant health in sugarcane • Michael Walsh (UQ) - "Actualising circular economies in agriculture" • Q&A
17h00-17h30	coffee break

17h30-18h30	Round table 3 - Sustainable food production
	• Timothy Hubley (DTU) - "A cascading approach to the recovery of protein from alfalfa and by-product valorisation" • Johannes Zöhrer (TUM) - "AlgaeBake - Interfacially active Algae protein isolates for vegan and sustainable baking goods" • Jhones Oliveira (UNESP) - "Nano-based biostimulants: a connection between bioeconomy and sustainable agriculture" • Q&A
Poster Session 1 -	
18h30-19h30	Discussion of research results, collaborative work and networking

Thursday, Oct. 3rd.

Session 3 - Utilization of Natural Bioresources

Chairpersons: Bjarke Christensen and Michael Zavrel

9h00-9h30	Invited lecture 4 – Jane Agger (DTU) - "Lignin - the unbelievable polymer"
9h30-10h30	Round table 4 - Biomass valorization
	• Badu Mercy (KNUST - Kwame Nkrumah University of Science and Technology - Ghana) - "Optimization of the Reaction Conditions in Biodiesel Production: The Case of Baobab Seed Oil" • Rodrigo Marques (UNESP) - "Green diesel and SAF - development of processes for HVO production" • Paulo Roberto Wohlfahrt (Bielefeld University) - "<i>De novo</i> production of polymer building block ϵ-Caprolactone from renewable resources" • Q&A
10h30-11h00	coffee break
11h00-12h00	Round Table 5 - Valorization of biogenic waste streams
	• Michel Brienzo (UNESP) - "Hemicellulose as a key component for bio-based products and bioenergy from waste biomass" • Christoph Gunkel (TUM) - "Effect of lignocellulose-derived inhibitors on isobutanol production with <i>Corynebacterium glutamicum</i>" • Valeria Ebinuma (UNESP) - "Agro-industrial citrus waste as nutritional source to co-producing colorants and enzymes: a biorefinery approach" • Q&A

Session 4 - Decarbonization

Chairpersons: Volker Sieber and Gary Schenk

15h30-16h00	Invited lecture 5 - Arne Roth (FhG) - <i>"Synthetic fuels from CO₂ and alcohols: Process development from lab to pilot scale"</i>
16h00-17h00	Round table 6 - Decarbonization
	• Lara Pfaff (DTU) - "Engineering of Formate Dehydrogenases for Conversion of CO₂" • Steffen Hardt (Leiden University) - "Bidirectional Catalysis for Protection of Polymer-Embedded [FeFe]-Hydrogenase from O₂ under Intermittent Hydrogen Evolution" • Vanessa Wegat (FhG/TUM) - "Robot-aided high-throughput engineering of FLS enzyme to establish in vivo synthetic C1 metabolism" • Q&A
17h00-17h30	coffee break

Special Session - Matchmaking for funding opportunities

Chairpersons: Marina Zapilko and Volker Sieber

17H30-18H15	• FAPESP/BMBF • QLD/BMBF • IGSSE • GIF
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Poster Session 2 -

18h15-19h30	Discussion of research results, collaborative work and networking
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Friday, Oct. 4th.

Session 5 - Cell-free processes as next generation biomanufacturing

Chairpersons: Kathrin Hörnschemeyer and Franka Matena

9h00-9h30	Invited lecture 6 – John Woodley (DTU) - <i>"Towards cell-free production of chemicals"</i>
9h30-10h15	Round table 7 - Cell-free processes
	• Leticia Zanphorlin (CNPEM) - "Olefin production from industrial byproducts" • Franka Matena (TUM) - "Cofactor regeneration in cell-free biocatalytic processes" • André Pick (CASCAT - StartUp) - ENZYME CASCADES - "Renewable resources as start point for an efficient chemical production"

10h15 - 10h45	coffee break
10h45-12h00	Round Table 7 (contd.) - Cell-free processes
	• Kathrin Hörnschemeyer (TUM) - "Substrate promiscuity in enzymatic cascades" • Tenuun Bayara (TUM/UQ) - "Optimising Enzymatic Cascades for Efficient and Sustainable Production of Isobutanol" • Renan Miyamoto (CNPq) - "A cell-free platform for the synthesis of the active form of vitamin B6 from lignocellulosic biomass" • Q&A
Session 6 - Sustainable Mining	
Chairpersons: Gary Schenk and Bjarke Christensen	
14h30-15h00	Invited lecture 7 - Peter Erskine (UQ) - "Harnessing Biology for a Low-Carbon Mining Future"
15h00-16h00	Round table 8 - Sustainable mining
	• Dhananjanu Pangotra (FhG) - "Electrochemical Approaches for the Sustainable Production of Hydrogen Peroxide" • Ailton Guilherme Rissoni Toledo (Unesp) - "Evaluation of dissolution of rare earth elements from fluorescent lamp powder using <i>Acidithiobacillus thiooxidans</i>" • Gary Schenk (University of Queensland) - "Bio-based low-carbon technology for the recovery of critical metals from waste streams" • Q&A
16h00 - 16h30	coffee break
Session 7 - How to achieve impact: Education	
Chairpersons: José Celso Freire Jr and Sebastian Goerg	
16h30-17h30	Round table 9 - Human resources formation - Master in Bioeconomy and Sustainability - BIOSUS • Sebastian Goerg - TUM • Rondinelli Herculano - Unesp • Paige Daly - DTU • Kayla Warner - UQ
Closing Session	
17h30-18h00	Best poster prize; Closing remarks