## Biocene 2018 **Organizers** CORNING **Event Sponsors** redhouse studio architecture | research | humanity Speakers **Start Time** Track Program EPSCoR SME "1 on 1's" 8/14/2018 9:15am Technical **Tour 1 of NASA Glenn Research Center** 8/14/2018 1:00pm Education **Early Bird Registration/ Volunteer Orientation** 8/14/2018 1:00pm All 8/14/2018 1:30pm All Biocene 2018 Cafe **Bio-inspired Art Competition** 8/14/2018 1:30pm All **Tour 2 of NASA Glenn Research Center** 8/14/2018 3:00pm Education **Continental Breakfast** 8/15/2018 8:00am 8/15/2018 8:45am All Welcome: Day 1 Dr. Vikram Shyam, NASA Glenn Research Center Jeff Rolf(President, OAI), Tom Tyrrell (Founder, GLBio). Dr. Ajay Misra (Deputy Director for Research, NASA Glenn Research Center) Dr. Vikram Shyam, NASA GRC Summit Objectives: Blockchain, Bionics and the Biocene 8/15/2018 9:00am All Keynote 1: Healthy Buildings for Everyone: Tapping Into Biology to Grow the Next Generation of Buildings Eric Corey Freed (Principal, organicARCHITECT) 8/15/2018 9:15am Keynote Biomimicry: What's in your R&D? Dr. Peter Niewiarowski ( Department of Biology, University of Akron) 8/15/2018 10:15am | Business **Break** 8/15/2018 10:45am | All **Design of Soft Machines** Dr. Mattia Gazzola (Blue Waters Professor at National Center for Supercomputing 8/15/2018 11:00am Technical Applications, University of Illinois Urbana Champaign) **Meet Animal Ambassadors** Harvey Webster (Cleveland Museum of Natural History) 8/15/2018 11:30am All **Lunch & Announcements** 8/15/2018 12:00pm All 8/15/2018 1:30pm Business **Animal Engineering** Dr. Hunter King (University of Akron) The Ultimate Physiomimetic Machine- A Leap Towards a Self-Replicating Machine for Planetary Colonisation Professor Alex Ellery (Carleton University) 8/15/2018 1:30pm | Technical 8/15/2018 2:00pm Business Steve Percy, moderator: ( retired Chairman and CEO of BP America) Tom Marting (panelist, Facilities, and Resource Management Director, GOJO) Teresa Wagner (panelist, Director, Roofing Science & Technology, Owens Corning) Jeff Finefrock (panelist, Corporate Technology Portfolio Manager, Lubrizol) **Intentional Networking Activity** 8/15/2018 2:45pm Business Led by Great Lakes Biomimicry Break 8/15/2018 3:00pm All **Pattern Alphabet** Alex Wolf (na2ure) 8/15/2018 3:15pm Technical Dr. Vijal Parikh (na2ure) **Biomimicry Explorer** Ioana Baldini (IBM Artificial Intelligence) 8/15/2018 3:45pm Technical **Lightening Round Presentations** Moderated by Calvin Robinson 8/15/2018 4:15pm Business Wrap up of the Day 8/15/2018 5:15pm All Reception & Networking, Cleveland Museum of Natural History 8/15/2018 6:30pm All **Continental Breakfast** 8/16/2018 8:00am All Welcome: Day 2 Curt Mcnamara (INCOSE/Minneapolis College of Art and Design) 8/16/2018 8:45am All **Keynote 2: Responsibly Imagined Future and Quantum Biology** Dennis Bushnell, (NASA Langley Research Center) 8/16/2018 9:15am Keynote Workshop: Growing V.I.N.E. (Virtual Interchange for Nature-Inspired Exploration), Introduction to Clusters Facilitated by Colleen Unsworth (Biomimicry Fellow, U Akron/NASA) 8/16/2018 10:00am | Workshop **Drone Demonstrations** 8/16/2018 10:30am All Impact of Biological Analogies on Creativity of Business Professionals Dr. Emily Kennedy (University of Akron) 8/16/2018 11:00am Business **Current Limitations of Biomimicry in Artificial Intelligence Research** Jason Mancuso (OpenMined) 8/16/2018 11:00am | Technical **Systems Mapping and Modeling for Biomimetic Education** Curt McNamara (Minneapolis College of Art and Design) 8/16/2018 11:00am | Education **Break** 8/16/2018 11:30am | All **Designing Into and For the Future through Biomimicry** Doug Paige (Cleveland Institute of Art) 8/16/2018 11:40am Business Evolving Rule-based, Explainable Artificial Intelligence (XAI) for Decision Support System of Unmanned Air Vehicles Dr. Devinder Kaur (University of Toledo) 8/16/2018 11:40am | Technical Resources and Techniques for K-12 Biomimicry Education Moderator DeLeon, Ballou, Wilson 8/16/2018 11:40am | Education **Lunch & Presentation: Nature-inspired Artificial Intelligence** Dr. Doug Riecken ( Program Officer, Science, Information, Learning & Fusion, Air 8/16/2018 12:10pm | Keynote Force Office of Scientific Research) Michael Haro **Introducing Biomimicry to Lockheed Martin** 8/16/2018 1:30pm | Business **Evolutionary Data Mining in Aerospace** Dr. Amir Gandomi (Stevens Institute of Technology) 8/16/2018 1:30pm Technical 8/16/2018 1:30pm Education **Best Practices in Informal Biomimicry Education** Great Lakes Biomimicry & Akron Zoo 8/16/2018 2:00pm All Break (vote on artwork) Featured Speaker Dr. Sofi Bin-Salamon, Program Officer, AFSOR, Biophysics at Air Force Office of Scientific Research Dr. Sofi Bin-Salamon, Program Officer, AFOSR 8/16/2018 2:15pm | Keynote Calvin Robinson (NASA, MIT Media Lab ) Workshop: Democratizing Science (Citizen Scientists, K-12, Technology, Business) 8/16/2018 2:45pm Workshop **Break** 8/16/2018 3:40pm Flourishing Organizations Sally Parker(TimeZero Enterprises) 8/16/2018 3:45pm Business Argerie Vasilakes (TimeZero Enterprises) Artificial Intelligence Led Discovery of Sense and Avoid Taxonomy and Strategy for sUAS The Business of Drones Zen Ahmed (QUID) 8/16/2018 3:45pm Technical Markus Vogl( University of Akron Myers School of Art) **Education: Art Approaches to Bio-Inspired Design** 8/16/2018 3:45pm Education Envisioning Human-Centered Tools for Systematic Biologically Inspired Design that Solve Real Needs and Bring People Joy | Ethan Smith (The Biomimicry Institute) 8/16/2018 4:15pm Business Taylor Clawson (Laboratory for Intelligent Systems and Controls, Cornell University) **Neuromorphic Target Tracking and Control for Insect-Scale Aerial Vehicles** 8/16/2018 4:15pm Technical **Bio-inspired Augmented Reality for Astronaut Extra Vehicular Activity** Dr. Shivakumar Sastry (Director, Data Science, University of Akron) 8/16/2018 4:15pm Education V.I.N.E. Cluster Breakouts - How to Bring Business, Education and Technology to Build PeTaL (Periodic Table of Life) 8/16/2018 4:45pm Technical Picnic in Cleveland Metroparks/ Rocky River Reservation 8/16/2018 5:00pm All 8/17/2018 8:00am **Continental Breakfast** 8/17/2018 8:45am Welcome: Day 3 Chris Maurer (Principle Architect, redhouse Studio, LLC.) 8/17/2018 9:00am All Meet Zoo animal ambassadors

The Structural Form	Dr. Luca Frattari (Director of Business Development, Altair )	8/17/2018 9:15am	Keynote
Break		8/17/2018 10:15am	All
Wind-Resilient Buildings and Structures: What Can We Learn from Nature?	Dr. Petra Gruber (Integrated Biosciences, University of Akron)	8/17/2018 10:30am	Technical
V.I.N.E. Clusters Report out - Including Communication Strategy, Targeted Solicitations, PeTaL Collaboration/ Application		8/17/2018 11:00am	Technical
City 2100	Phillip Vandermey (Spectacle-Bureau and University of Calgary )	8/17/2018 11:30am	Technical
Lunch & Awards	Facilitator - H. Thompson ( OAI)	8/17/2018 12:00pm	All