

Panel

Investment Potential: The 2019 GC3 Technology Showcase Finalists

Presentation: [Click here to download slides](#)

Moderator:

Julie Manley, Startup Network Coordinator, GC3

Summary:

Three innovative startup companies, considered by judges and participants, to have had the strongest pitches at the 4th GC3 Technology Showcase, were selected to participate in a mock “Sharktank” pitch during this panel with tech scouts, large company experts, and investors.

Representatives from the three startup finalists included:

1. *Paul Petersen*, VP of Sales, Visolis Biotechnology
2. *David Nugent*, Co-Founder and Chief Commercial Officer, Colorifix Limited
3. *Kevin White*, COO, Akron Ascent Innovations

Panelists chosen to ask clarifying questions of the startup representatives included:

1. *Al Iannuzzi*, Vice President, Sustainability, Estée Lauder Companies
2. *Chris Killian*, Vice President, Technology, Eastman Chemical Company
3. *Martin Mulvihill*, Managing Partner, Safer Made
4. *Bryan Stubbert*, Associate Research Scientist, Dow

Presenter:

Paul Petersen, Visolis Biotechnology

Visolis Biotechnology’s business model is centered on identifying key platform chemicals that have large downstream application potentials and targeting those downstream chemicals for production via a combination of synthetic biology/fermentation and traditional downstream chemical processes. Their approach is supported through high-throughput screening and machine learning which allows for targeting of bio-based chemicals for production and delivering a complete technology package for partners. Paul discussed the competitive advantages of their base platform molecules that convert bio-based raw materials into other bio-based molecules using traditional chemistries. Applications of their materials include green solvents, adhesives and elastomers, super absorbent polymers, terpenes, polyols and polyurethanes, and unsaturated polyester resins. One of the key performance advantages of their green solvent is that can also be used to ‘recycle’ high-performance polymers using ant-solvents. The key advantage of their bio-based diol is that it performs as a ‘drop-in’ replacement for high performance polyurethanes, polyesters, and polycarbonate polyols and other applications at a low-cost position, providing a significant competitive advantage to petroleum. Visolis’ ‘big picture’ strategy is to identify new platform molecules or permutations to change how chemicals are made globally in the next decade or two, either from fossil fuel sources or renewable resources.

Presenter:

David Nugent, Colorifix Limited

Colorifix Limited is the only dyeing technology that exclusively uses renewable resources. Natural pigment-dependent dyeing techniques were transformed in the mid-1800s with the generation of Azo dyes that revolutionized the textile industry. Unfortunately, production and application of Azo textile dyes is very energy intensive and environmentally damaging.

Colorifix Limited is transforming the industry by ‘growing’ color through industrial fermentation. Molasses by-products of sugar industry are fed to microorganisms engineered to produce, transfer and fix pigment materials onto a substrate. These microorganisms are able to reproduce every 22 minutes. Pigments are NOT extracted from the microorganisms. The Colorifix technology relies on a sterilization process that kills microorganisms and lyses cells to release both the pigment and other natural molecules that acts as mordants to fix the color to the material. This color transfer process works on both natural and synthetic fibers, is less water and energy intensive than traditional dyeing methods and does not use any hazardous chemicals in the process. It is also important to note that this process works with existing dye machines.

Presenter:

Kevin White, Akron Ascent Innovations

Akron Ascent Innovations focuses on a biomimicry-inspired approach to adhesion and their technology is centered on a fiber production method called electrospinning that creates a network of very small fibers that have been formulated to get the proper balance of mechanical properties to conform to a whole of range of surfaces. With an NSF/SBIR grant in 2015, Akron Ascent Innovations was able to scale up operations, but it quickly discovered that success at lab scale does not necessarily translate to success at commercial scale. As a startup, Akron Ascent Innovations set up a working relationship with larger strategic partners, but subsequent corporate acquisitions and merger situations led to dissolution of initial contracts with their strategic corporate partners. In 2018, Akron Ascent Innovations focused on ways to scale up existing projects along with a commercialization partner that already had all the equipment on hand. They also launched a “pinless” brand of dry-adhesion products and to direct-to-consumers to ask for feedback. Akron Ascent Innovations recently received their first distributor relationship and are looking for more B2B opportunities. Specifically, they are looking to expand their pipeline for existing products, develop partnerships to guide development, drive value-add through advanced material solutions that respect principles of green chemistry and further advance their intellectual property through processes and product architecture.