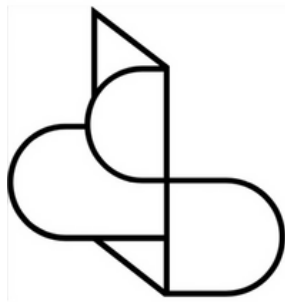


INVESTOR SUMMIT REPORT

2022



CENTER FOR
CONTEMPORARY
SCIENCES



Beyond
ANIMAL

INVESTOR SUMMIT RECAP

ON MARCH 24, 2022, THE CENTER FOR CONTEMPORARY SCIENCES (CCS) HOSTED ITS FIRST INVESTOR SUMMIT. THIS ONE-OF-A-KIND BUSINESS DEVELOPMENT EVENT, HELD IN PARTNERSHIP WITH BEYOND ANIMAL, WAS OPEN TO THE PUBLIC AND BROUGHT TOGETHER AN INTERNATIONAL GROUP OF INNOVATORS, INVESTORS, RESEARCHERS, START-UPS, AND VENTURE PHILANTHROPISTS.

KEY TAKEAWAYS:

- Disruptive technologies like Organ-on-a-Chip, Bioprinting, Artificial Intelligence, Nanofluidics, and related Microphysiological Systems (MPS) are shaping pharmaceutical drug development, environmental toxicology testing, and biomedical research.
 - Investments in these innovations offer ample opportunities for business development and financial growth. At the same time, they reduce the reliance on ineffective animal models in biomedical research and other industries like cosmetics or environmental toxicology.
 - International participants working to shape the future of medicine and the chemical testing industry participated in the Summit. The list of speakers is comprised of innovators from the United States, Switzerland, Sweden, England, France, Israel, and India.
 - Collaborations - like those realized at the Investor Summit 2022 - are critical to unlock new potentials, gain fresh perspectives, spread awareness, and maximize the benefits of the emerging technologies and their applications.
-

Summary

The packed, three-hour Summit was an opportunity to provide needed exposure to business entities in the space, promote the cross-pollination of ideas, and unlock entrepreneurial potentials with expert input from investors. Alongside CCS and Beyond Animal, international participants included trailblazers in biomedical innovation and Organ-Chip technology like MatTek, Tissue Dynamics, and NETRI; bioprinting leaders such as CELLINK; experts in advancing regenerative medicine therapies like ReMDO; the animal-free cosmetics industry pioneer, XCellR8; and the startup company, BioDimension. This list is in addition to a wide network of investors seeking to learn more about new opportunities in these areas.

CCS is committed to changing the current paradigm in drug development and academic research that still relies heavily on ineffective animal models. Of note, the Summit comes at a critical time of growth and legislative progress for many emerging biomedical technologies, especially those referred to collectively as Microphysiological Systems (MPS) (e.g., Organ-Chip).

"This is the first ever Investor Summit specifically focused on replacing the use of animals with more human-relevant testing methods," says CCS CEO Aysha Akhtar, MD, MPH. "We have been seeing more companies emerge that are focused on developing tools that can better help us understand human diseases and find treatments than artificial animal testing. These tools are the future of medicine, and we are excited to be helping to launch this future."

Below are the key highlights from each segment, listed in chronological order. This includes the opening remarks, an experts panel, pitches for funding by innovative companies, and several breakout sessions. Recording of the Summit can be viewed at the Beyond Animal [event page](#).

SUMMIT AGENDA

Welcome Introduction & Remarks 15-20 min

Center for Contemporary Sciences
and

Claire Smith, M. ENG.

Founder, Beyond Animal

Welcome Message and Keynote

"Emerging Technologies for Disease Modeling and Drug Discovery"

Experts Panel 70 min

Aysha Akhtar, MD, MPH

CEO, Center for Contemporary Sciences

"Why Replace Animal Experimentation?"

Alex Armento, MA

CEO, MatTek, a BICO company

"The Future of Preclinical Testing"

Josh Hunsberger, PhD

CTO, ReMDO

"Advancing Drug Discovery and Personalized Medicine with In Silico Predictive Models"

Itedale Redwan, PhD

CSO, CELLINK, a BICO company

"Bioprinted Human Tissue Models for Pharmaceutical and Cosmetic Product Testing"

Q & A 10-20 min

Short 5 min break

Sponsor Highlights & Acknowledgement

Pitches for Funding 40 min

Daniel Koppelkamm & Claire Smith, Investor Panel

Yaakov Nahmias, PhD, Founder & CSO, Tissue Dynamics Ltd

Carol Treasure PhD, CEO & Co-founder, XCellR8 Ltd

Thibault Honegger, PhD, CEO & Co-founder, NETRI

Ranjith Kumar Velusamy, MS, Co-founder, BioDimension Ltd

Q & A 10-15 min

Estimated Plenum Time (Total) 165 min

Break Out Sessions - Time Varies

SUMMIT SPEAKERS

The following presentations are short talks by industry experts describing several aspects of the emerging technologies and the current affairs in the space:



CLAIRE SMITH, M. ENG.

SWITZERLAND – Founder of Beyond Animal shared her enthusiasm about partnering with CCS to shed light on this important topic. Ahead of the Summit, Ms. Smith shared that "the use of animals for research and toxicology testing is a \$25 billion market that is ripe for disruption. There can be few industries where 95% of the output is found to be unnecessary or worthless, as is the case with results from animal trials that fail when applied to the human end consumer. We look forward to hosting experts, entrepreneurs and investors at this event and connecting promising start-ups with the capital they need to grow." Alongside Daniel Koppelkamm of the venture capital firm, Convergence Partners, and CCS, Ms. Smith also moderated the investor panel that advised companies seeking capital at the Summit.

AYSHA AKHTAR, MD, MPH

USA – Chief Executive Officer of Center for Contemporary Sciences gave a presentation entitled "Why Replace Animal Experimentation?" In this wide-ranging talk, Dr. Akhtar summarized the use of animals across different sectors, including where and why animals are used. She emphasized the need to replace animal testing, highlighting both the ethical and scientific aspects involved, especially in the context of pharmaceutical research, academic medicine, and toxicology research. Dr. Akhtar enumerated some solutions that would alter the current paradigm, including investing in human-relevant technologies, and education and policy initiatives.



ALEX ARMENTO, MS

USA – Chief Executive Officer of MatTek, a BICO company, delivered a talk entitled “The Future of Preclinical Testing” in which he outlined the process of drug development and examined the challenges confronting the industry. He underscored the value provided by new technologies like 3D technologies and Organ-Chip to accelerate the discovery process and increase productivity of the pharmaceutical industry. Mr. Armento shared the latest innovations from the growing MatTek portfolio of solutions, including available discovery and testing products in toxicology, cosmetics, immunology, and drug delivery. He also summarized future plans at MatTek, including efforts underway to capture, integrate, and model whole-body physiological networks into sophisticated 3D multi-organ integrated systems, building on progress in Organ Chip technologies and advanced biocomputing.



JOSH HUNSBERGER, PHD

USA – Chief Technology Officer at the Regenerative Medicine Development Organization (ReMDO) presented on “Advancing Drug Discovery and Personalized Medicine with In Silico Predictive Models.” Dr. Hunsberger described the work of the nonprofit organization to accelerate the discovery and translation of regenerative medicine therapies. He outlined recent steps at ReMDO, including a workshop focused on the Organ-Chip technology and the development of a user roadmap. That is in addition to describing the work of the Humanoid Sensor Consortium (HSC) and its aims in disease modeling, drug discovery, data mining, and personalized medicine.

ITEDALE REDWAN, PHD

SWEDEN – Chief Scientific Officer at CELLINK, a BICO company, delivered a talk entitled “Bioprinted Human Tissue Models for Pharmaceutical and Cosmetic Product Testing.” Dr. Redwan introduced the growing field of bioprinting from various angles, focusing on its applications in tissue engineering and the cosmetic industry. After explaining the mission of CELLINK, she described the current work at the company including the suite of products developed to advance human-relevant discovery and testing methods. Dr. Redwan also updated the audience on the latest innovations in bioprinting designs, including bioprinters and biomaterials, especially bioinks – the materials (typically cells) used to produce engineered live tissue using 3D printing.



Investor Pitches

The followings presentations are short talks by innovative companies seeking funding and open to receiving capital from investors:



TISSUE DYNAMICS YAAKOV NAHMIAS, PHD

ISRAEL – Founder & Chief Science Officer of Tissue Dynamics Ltd introduced the company, a groundbreaking biotechnology company that develops drug toxicity and efficacy screening tools for the pharmaceutical and cosmetic industries. Dr. Nahmias elaborated on Tissue Dynamics’s proprietary high throughput kinetic screening platform that utilizes sensor-integrated organ on chip technology to monitor changes in metabolic function in real time. Dr. Nahmias underscored this key feature of the Tissue Dynamics technology and elaborated on the micro-physiological platform of the company that deploys real time data acquisition to minimize false positive and false negative-type errors.

XCELLR8

CAROL TREASURE, PHD

UNITED KINGDOM – Chief Executive Officer & Co-Founder of XCellR8 Ltd gave an overview of the company structure and its growth trajectory over the years. XCellR8 is a world leader in non-animal testing. Its GLP (good laboratory practice) accredited laboratory provides ground-breaking in vitro safety and efficacy tests for the cosmetics and chemical industries. Dr. Treasure explained the readiness of XCellR8 at this juncture to receive capital and elaborated on its expansion plan, should this become a reality. She explained the company philosophy in establishing regulatory tests that are based on the development of new methods, driven by a passionate commitment to provide rapid delivery of completely animal-free testing strategies that are both scientifically advanced and ethically sound.





NETRI

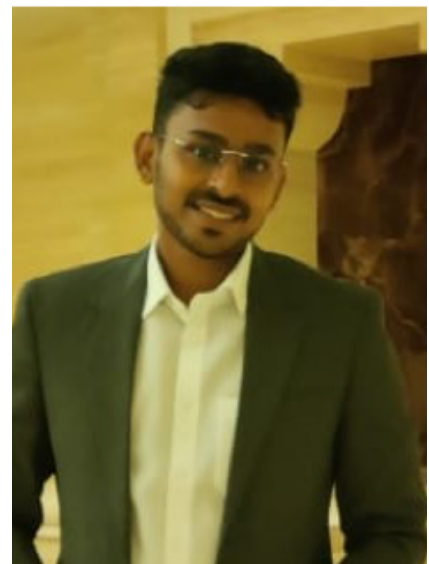
THIBAUT HONEGGER, PHD

FRANCE – Chief Executive Officer & Co-founder of NETRI introduced its technology and products. NETRI is a biotech company that emphasizes research and development to explore organ-on-chip approaches for neuroscience. It investigates, using cellular models, complex neuronal architectures that emulate human brain circuits, and creates technologies for replicating human neural circuits using sophisticated experimental cellular models. Notably, Dr. Honegger described the company's expansion into multiple areas beyond neuroscience and the establishments of additional microfluidics chip lines that cater to additional industries, including toxicology testing. Dr. Honegger summarized NETRI's financial health, equity status, and the exit channels at NETRI.

BIODIMENSION

RANJITH KUMAR VELUSAMY, MS

INDIA – The Co-founder of BioDimension introduced their future plans for growth. BioDimension is a tissue engineering company that develops 'artificial tissues' as an alternative to animal-based experiments for cosmetic testing and drug research. The company is incubated at VIT – Technology Business Incubator, Vellore in India. Mr. Velusamy provided a summary of the product development at BioDimension and the value that new capital can have in realizing BioDimension's vision and market integration.





CONVERGENCE PARTNERS

DANIEL KOPPELKAMM, MBA

SWITZERLAND – Co-founder of Convergence Partners, Mr. Koppelkamm provided, alongside Claire Smith of Beyond Animal and CCS, real time feedback to the four pitching companies. Mr. Koppelkamm shared specific recommendations with the participants aiming at expanding their prospects of attracting funding. Representatives from all companies seeking funding were present. Dr. Einat Zisman, CEO of Tissue Dynamics represented her company in this segment. Convergence Partners was formed in 2018 by experienced venture capital and operational experts with a vision to establish a venture capital firm that actively supports the internationalization and market access of European technology innovators to the four largest healthcare markets: US, China, India and Germany.

Summit In Brief

In summary, the CCS Investor Summit 2022 shed lights on several disruptive technologies like Organ-on-a-Chip, Bioprinting, Nanofluidics, and other Microphysiological Systems (MPS) shaping pharmaceutical drug discovery, environmental toxicology testing, cosmetics development, and biomedical research. The Summit accelerated the engagement among scientists, investors, and the business community by unlocking new potentials and creating networks, worldwide. Importantly, it highlighted the ample opportunities for investments and business growth in these emerging, transformative fields.

PARTICIPATING COMPANIES & ORGANIZATIONS



EVENT SPONSOR

