PROGRAM BOOK

MARYLAND LIFE SCIENCES bioinnovation CONFERENCE

OCTOBER 4-6, 2021 #MDLSBioInnovation

DAY 1 | OCTOBER 4
IN-PERSON
AND VIRTUALDAY 2 | OCTOBER 5
IN-PERSON
AND VIRTUALDAY 3 | OCTOBER 6
BIO ONE-ON-ONE
PARTNERING OPPORTUNITIES

OPPORTUNITIES

OPPORTUNITIES



Focused Kite on the Cure.





CONTRACTION OF CONTRACT OF

Using AI, Sonavi Labs is re-imagining the stethoscope for the first time in over a century. In their high-tech quest to save lives, this Maryland-based company is surrounded by the things tech startups dream of having in their backyard: top research institutions, STEM professionals, and organizations that have their back.

Innovation lives here. open.maryland.gov/innovation



THANK YOU FOR ATTENDING

Dear Colleagues and Friends,

It is my pleasure to welcome you to our annual Maryland Life Sciences Bio Innovation Conference! As the region's premiere collaborative community for the life sciences industry, we are thrilled and deeply committed to safely bring our community back together again for the first integrated in-person and virtual conference.

This conference provides a forum for professionals from industry, academia and government to discuss trends and insight in the industry sector areas of advanced biomanufacturing, sponsored by Kite, a Gilead Company; cell and gene therapy, sponsored by MaxCyte; vaccines and immunotherapy, sponsored by Novavax; and regulatory and clinical development.

This two-day hybrid conference will give you access to:

- BIO One-on-One Partnering
- · Sessions with industry experts
- Networking opportunities
- Keynote presentations
- Virtual exhibit hall

I am very grateful for all of the work done by our staff, Co-chairs Brad Stewart, Steve Walker and the Bio Innovation Committees, for their commitment to making the conference an enormous success.

I also extend my deep gratitude to our Industry Sector Sponsors Kite, a Gilead Company, Maxcyte and Novavax, Contributing Sponsors AstraZeneca, Emergent BioSolutions and GSK and Presenting Sponsors Avantor, Maryland Department of Commerce, Montgomery County Economic Development Corporation and PhRMA. Please take note of all of our outstanding sponsors on page 34.

Thank you for joining us for the next two days; I encourage you to join us as much as possible. This is a great time for us to experience this together. Thank you for being part of this wonderful community.



Martin Rosendale Chief Executive Officer, Maryland Life Sciences A division of Maryland Tech Council

DAY 1 | OCTOBER 4, 2021

Registration Open - Breakfast and Networking	
Virtual Exhibit Hall Open	
Welcome Brad Stewart, Chair, Maryland Life Sciences, Senior Vice President of B Montgomery County Economic Development Corporation	usiness Development,
Opening Remarks Kelly Schulz, Secretary, Maryland Department of Commerce Martin Rosendale, Chief Executive Officer, Maryland Life Sciences	
Break	
Preparedness Silvia Taylor, Senior Vice President, Global Corporate Affairs and Invest	or Relations, Novavax
Melanie Saville, Director of R&D, Coalition for Epidemic Preparedness	Innovations
Expert panelists from companies leading the development of these dis	ruptive technologies will
MODERATOR Kazem Kazempour , President and Chief Executive Officer, Amarex Clin	ical Research
PANELISTS Bill Enright , Chief Executive Officer, Vaccitech	
-	r
Robert van den Berg, PhD, MBA, Head of the Data Sciences & Comput	ational Vaccinology, GSK
	 Virtual Exhibit Hall Open Welcome Brad Stewart, Chair, Maryland Life Sciences, Senior Vice President of B Montgomery County Economic Development Corporation Opening Remarks Kelly Schulz, Secretary, Maryland Department of Commerce Martin Rosendale, Chief Executive Officer, Maryland Life Sciences Fireside Chat Toward a Healthier, Safer World: The Power of I Sally Allain, Head, Johnson & Johnson Innovation - JLABS @ Washington Gary Disbrow, PhD, Director, Deputy Assistant Secretary for Prepareder Biomedical Advanced Research and Development Authority, U.S. Depar Human Services Break Keynote Speaker The COVID-19 Experience: Accelerating Inne Preparedness Silvia Taylor, Senior Vice President, Global Corporate Affairs and Invest Melanie Saville, Director of R&D, Coalition for Epidemic Preparedness Disruptive Technology Innovation and Vaccine Development mRNA and viral based vaccines have led the way in rapidly addressing Expert panelists from companies leading the development of these dis discuss their impact, what's next for these technologies and what other may be around the corner. MODERATOR Kazem Kazempour, President and Chief Executive Officer, Amarex Clin PANELISTS Bill Enright, Chief Executive Officer, Vaccitech Mary Moran, MD, Viral Vaccines Medical & Scientific Affairs Lead, Pfize

12:00PM - 1:00PM Networking Lunch

DAY 1 | OCTOBER 4. 2021

	1:00PM - 1:50PM	 Health Equity and Vaccine Confidence Everyone should have a fair and just opportunity to be healthy. Biomedical professionals and health policy and equity leaders will come together to provide straight talk and discuss the obstacles with trying to obtain fair health care, ensuring diversity in clinical trials, overcoming issues of mistrust, and addressing vaccine hesitancy. MODERATOR Beth Maloney, President, Palladian Partners, Inc., an Altarum Company PANELISTS Dr. Lisa Dunkle, Vice President, Clinical Development Global Medical Lead, Novavax Matthew Hepburn, Director, COVID Vaccine Development, HHS-DoD Countermeasures Acceleration Group Stephen Thomas, Professor, Health Policy & Management, Director, Maryland Center for Health Equity, University of Maryland College Park
	2:00PM - 2:50PM	Fireside Chat Scaling up in the "New Normal" Pre- and post-pandemic, a start-up life science company's fundraising journey continues to be challenging. In the candid fireside chat, you will hear from Marty Rosendale and Christopher Austin as they share their knowledge about capital raising in Maryland, challenges entrepreneurs face, especially during the pandemic, and how they were overcome, how to identify investors and unique fundraising opportunities and what the landscape looks like for the future. Martin Rosendale, Chief Executive Officer, Maryland Life Sciences Christopher Austin, MD, Chief Executive Officer-Partner, Flagship Pioneering
	3:00PM - 3:50PM	 Biotech Careers: Everyone Can Take Part In Shaping The Future The life sciences industry in Maryland and the larger BioHealth Capital Region is experiencing significant growth, providing opportunities for local talent to enter the workforce at multiple entry points. The region has a robust supply of talent that can support the growing demand o the local biopharmaceutical industry; however, there is a need to stimulate stronger interest ir industry careers by deliberately engaging diverse talent where they are and delivering a clear value proposition. Members of the joint task force organized by the Maryland Life Sciences Advisory Board and the Maryland Tech Council will discuss ongoing efforts that seek to improve this connectivity and share successful models of building robust talent pipelines that can support the growth of the regional innovation ecosystem. MODERATOR Ulyana Desiderio, PhD, Director, BioHealth and Life Sciences, Maryland Department of Commerce PANELISTS Michael Nestor, PhD, Scientific Engagement Lead, Johnson & Johnson Innovation - JLABS @ Washington D.C. KaShauna Rohlehr, MBA, PMP, Associate Director - Alliance, Program and Project Management, GSK Joe Sanchez, PhD, MBA, Director, Science Engagement & STEM Programming, R&D North America, AstraZeneca Brian Stamper, Senior Director of Manufacturing, Kite, a Gilead Company
		Cocktail Recention



As biopharmaceutical researchers keep searching for breakthrough cures they don't have to look far for inspiration.

In this new era of medicine, where breakthroughs are transforming prevention and treatment options, PhRMA is committed to fixing America's health care system the right way.



DAY 2 OCTOBER 5, 2021

7:00AM - 8:00AM	Registration Open – Breakfast and Networking
9:00AM - 5:00PM	Virtual Exhibit Hall Open
8:00AM - 9:00AM	Welcome and Fireside Chat Martin Rosendale, Chief Executive Officer, Maryland Life Sciences
	Dr. David Agus , Chief Executive Officer, Ellison Institute for Transformative Medicine, physician, author, CBS Medical Contributor
9:00AM - 9:50AM	Engineered Cell Therapies: Increasingly Complex Product Development The development of next generation engineered cell therapies has expanded into novel cell types and are designed with increasingly sophisticated engineering approaches. In this session, we will hear from two companies developing innovative approaches for novel cell therapeutics for the treatment of a growing list of intractable diseases. The presentations will be followed by a short Q/A session with the panelists.
	WELCOME Doug Doerfler, President and Chief Executive Officer, MaxCyte
	MODERATOR Sarah Meeks , Senior Vice President, Business Development, MaxCyte
	PANELISTS Mike Klichinsky , Co-Founder and Senior Vice President, Research, Carisma Therapeutics Michael Singer MD, PhD , Chief Scientific Officer, Cartesian Therapeutics
10:00AM - 10:50AM	Cell and Gene Therapy: CMC and Manufacturing Hurdles and Solutions Manufacturing of cell and gene therapy is the bottleneck for availing this line of innovative therapies to clinical trials and patients. In this panel, we invited the world experts in cell and gene therapy to address Chemistry, Manufacturing and Controls (CMC) aspects of cGMP manufacturing of cell and gene therapy. The topics include quality by design, scaleup, process control, and product characterization and release. The goal for the panel is to share insights on how to design CGT product and production processes to allow for quality and speedy release.
	MODERATOR Jeffrey Hung , General Manager, Vigene Biosciences PANELISTS Matthew Hewitt, B.A, PhD , Senior Director, Scientific Solutions, Cell and Gene Therapy, Charles River Labs
	David Anderson , Senior Director, Quality Site Head, Kite, a Gilead Company Jon Rowley , Chief Product Officer, RoosterBio
11:00AM - 11:50AM	Cell and Gene Therapy: Beyond Oncology The Beyond Oncology panel will discuss applications of cell therapy beyond treatment of advanced cancers. Specific examples will include use of cell & gene therapy for treatment of autoimmune disorders such as myasthenia gravis, respiratory diseases such as ARDS and COVID-19, and rare genetic disorders such as XMEN disease. Ex-vivo cell modification strategies will be compared between different approaches and disease indications. Potential benefits of these novel approaches will be weighed against treatment risks and costs.
	MODERATOR Murat Kalayoglu, MD, PhD , President, Cartesian Therapeutics
	PANELISTS Suk See DeRavin , Clinician, Genetic Immunotherapy Section, Laboratory of Clinical Immunology and Microbiology, NIAID, NIH
	Dr. Bruce Levy , Chief of Pulmonary and Critical Care Division, Brigham and Women's Hospital, Harvard Medical School
	Dr. Tahseen Mozaffar, Professor of Neurology, University of California, Irvine

DAY 2 OCTOBER 5, 2021

12:00PM - 1:00PM	Lunch Break
1:00PM - 1:50PM	Fireside Chat Bringing Hope to Patients—Advanced Manufacturing at Kite Nicole Wood, Senior Regional Director, State Advocacy, PhRMA
	Jim Jackson, Vice President, Manufacturing, Kite, a Gilead Company
2:00PM - 2:50PM	Biomanufacturing: Buy it or Build it (Pros and cons of insourcing vs. outsourcing) With the explosion of biomanufacturing needs being driven by a rapid expansion of funding and life sciences innovations and successes, a critical question persists whether the industry can meet these current and future demands. Will the manufacturing capacity be there to deliver on the promise of great, innovative science? Should needed biomanufacturing be performed in-house with complete control of timelines, budgets and processes or out-source to companies that have the existing facilities, equipment, track record and capability, but may be delayed in offering a slot? If in-house work is on the table, companies have to consider building a new facility and organizational structure, shouldering high capital costs, and managing the long timelines associated with validation and possibly repurposing the equipment if their needs change.
	MODERATOR
	Ben Skowronski, Senior Director, Maryland Office Lead, Associate, CRB
	PANELISTS Craig Malzahn , Vice President, Technical Operations, RegenxBio
	Harish Santhanum, Senior Director, Manufacturing Science and Technology, Kite, a Gilead Company
	Thomas VanCott, PhD , Vice President, Global Head of Product Development, Cell and Gene Therapy, Catalent Biologics
3:00PM - 3:50PM	Revolution in Biomanufacturing
	One of the biggest drivers of biomanufacturing has been the rapid advances in vaccine and cell therapy and their production is undergoing a record transformation. These new technologies will serve as the cornerstone for biomanufacturing facilities of the future. Our panel discussion on Revolutions in Biomanufacturing will highlight the next generation ecosystem of processes, data acquisition, analysis and software automation and how they are used to bring medicines to market faster.
	MODERATOR Brad Stewart , Senior Vice President of Business Development, Montgomery County Economic Development Corporation
	PANELISTS Catherine Hanley , Vice President and Interim CDMO Business Unit Head, Emergent BioSolutions
	Nicholas Ostrout, PhD, Global Head of Commercial Development, Lonza
	Peter Olagunju, Chief Technology Officer, TCR2 Therapeutics
3:50PM - 4:00PM	Closing Remarks Steven Walker, Senior Director and Head, Global Marketing - Early Portfolio Strategy, GSK

DAY 3 | OCTOBER 6, 2021

7:00AM - 7:00PM

BIO One-on-One Partnering (available 24 hours for scheduling)

History in the Making

In collaboration with Children's National Hospital, Johnson & Johnson Innovation is open for business in the nation's capital with the establishment of a new 32,000-square foot incubator in Washington, D.C. called JLABS @ Washington, DC.

Grounded in Our Legacy of Service

JLABS @ Washington, DC is built on a rich history of grit and collaboration driving life science in our nation's capital. The legacy of our new campus at Walter Reed Army Medical Center has helped make the local innovation ecosystem what it is today, and we're excited to build on this tradition through connecting scientists and entrepreneurs with resources, tools and expertise to help accelerate their potential breakthrough ideas.

Value-Generating Collaboration

Johnson & Johnson Innovation – JLABS and the Biomedical Advanced Research and Development Authority (BARDA) are collaborating on a joint initiative, BLUE KNIGHT[™], which aims to stimulate the innovation and incubation of science and technologies that may improve health security and response by supporting companies focused on public health threats and emerging infectious disease.

We believe a healthier world starts by working together

We support entrepreneurs by helping them overcome common barriers to discovery and development with the aim to help deliver the next generation of potentially life-changing innovations to the patients who need them. JLABS @ Washington, DC operates at the intersection of innovation and inclusion to help address health inequities and advance science that could deliver the best health outcomes.



To learn more and apply for residency at JLABS @ Washington, DC, visit: https://jji.jnjinnovation.com/join-jlabs-dc

Johnson Johnson innovation

KEYNOTE SPEAKERS



Christopher Austin, MD Chief Executive Officer-Partner Flagship Pioneering

Christopher Austin is a Chief Executive Officer-Partner at Flagship Pioneering in Cambridge, MA. In that role, he serves as Chief Executive Officer of one of Flagship's franchise companies and advises on the operation and creation of other Flagship entities. Before joining Flagship in 2021, Dr. Austin served for almost a decade as the founding director of the National Center for Advancing Translational Sciences at the NIH, where he formulated the strategic vision and scientific directions of the new center, and led its efforts in developing, demonstrating, and disseminating scientific and operational advances across the spectrum of translational science to get more treatments to more patients more quickly, from target validation to preclinical therapeutic development to clinical trials to community health implementation. Before NCATS, Austin founded and directed a number of scientific and technology initiatives at the National Human Genome Research Institute at NIH to derive biological insights and therapeutic potential from the human genome. Austin came to NIH in 2002 from Merck, where his work focused on genome-based discovery of novel targets and drugs, with a particular focus on common complex neuropsychiatric diseases. He received his A.B. in biology from Princeton and M.D. from Harvard Medical School, did clinical training in internal medicine and neurology at Massachusetts General Hospital, and completed a research fellowship in genetics at Harvard.



Gary Disbrow, PhD Director, Deputy Assistant Secretary for Preparedness and Response Biomedical Advanced Research and Development Authority, U.S. Department of Health and Human Services

Dr. Gary Disbrow is the Director of the Biomedical Advanced Research and Development Authority (BARDA), a component of the Office of the Assistant Secretary for Preparedness and Response in the U.S. Department of Health and Human Services. BARDA invests in the innovation, advanced research and development, acquisition, and manufacturing of medical countermeasures - vaccines, drugs, therapeutics, diagnostic tools, and non-pharmaceutical products needed to combat health security threats. BARDA has established hundreds of public-private sector partnerships and as of July 2021 BARDA now has a portfolio of 61 products that have earned FDA regulatory approvals, licensures or clearances. Dr. Disbrow joined BARDA in January of 2007 and has held a variety of positions related to the advanced development and procurement of medical countermeasures against an array of threats to national security and public health. Prior to becoming the BARDA Director, Dr. Disbrow served as acting BARDA Director, Deputy Assistant Secretary of ASPR and Medical Countermeasures Program Director. In October 2013, Dr. Disbrow was named Acting Director of the Chemical, Biological, Radiological and Nuclear (CBRN) Division and was subsequently named the Director of the Division in December of 2014. During that time, the CBRN Division built a robust pipeline of candidate products under advanced research and development. In 2014 and 2015, Dr. Disbrow was identified as the Ebola Incident Coordinator for BARDA and worked closely with the BARDA Director on funding needs, development of candidate products, and was the primary liaison for BARDA across the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE). These efforts led to the first licensed Ebola vaccine, ERBEVO licensed in December 2019 and the first licensed Ebola therapeutics, Inmazeb licensed in October 2020 and Ebanga licensed in December 2020.

KEYNOTE SPEAKERS CONTINUED



Melanie Saville MB BS Director of R&D, Coalition for Epidemic Preparedness Innovations Melanie Saville joined the Coalition for Epidemic Preparedness Innovations (CEPI) in November 2017. She is the Director of Vaccine Research and Development, and leads the technical teams supporting the vaccine development and enabling science projects funded by CEPI and is the R&D and Manufacturing workstream leader for COVAX. Melanie is a physician specialized in virology with 20 yrs of experience in the development and licensure of vaccines for the developed and developing world. Over the years, she has contributed to the development and licensure of several vaccines for seasonal and pandemic influenza, pediatric combinations, Rabies, Japanese Encephalitis and Dengue vaccine in Europe, US and the international area. Melanie obtained her medical degree from University College, London in 1993. She also obtained a Bachelor of Science in Molecular Biology from University College, London and a master's in medical Virology from Imperial College, London. In the vaccine industry, Melanie has held positions of increasing responsibility in research and development working for Wyeth, Sanofi Pasteur and Janssen vaccines and prevention.

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Sally Allain Head Johnson & Johnson Innovation - JLABS @ Washington, DC | BLUE KNIGHT™

As Regional Head of JLABS @ Washington, DC, Sally sets the strategic direction and oversees all operational activities for JLABS in the greater Washington metro region, including Maryland and Virginia. In this role, Sally is responsible for the process of evaluating and selecting a strong portfolio of innovators for ILABS @ Washington, DC, and building strategic partnerships with corporate, academic, government and industry organizations that aim to strengthen the region's life sciences innovation network. Sally joined JLABS after serving as Senior Director, Strategy & Operations on the Global External Innovation team at Johnson & Johnson, where she supported portfolio management and reporting and strategic business development efforts across the organization. Prior, Sally was with Janssen R&D, Immunology, where she managed a team in research operations and alliance management for the early discovery to early development portfolio. Sally understands well the needs of healthcare entrepreneurs, having launched her research career at a San-Diego based biotech startup and then working internationally for a UK-based governmental economic development agency creating earlystage biotech and academic collaborative programs aimed at accelerating the development of products to address the needs of patients and consumers. Sally received her MBA from the University of California Berkeley, Haas School of Business, where she was recognized by 'Poets and Quants' as one of the 'Top 50' EMBA students across US & International Programs in 2016; a Master of Science Degree in Microbiology / Immunology from Virginia Tech; and a Bachelor of Science Degree in Biology from Virginia Tech.



Ulyana Desiderio, PhD Director, BioHealth and Life Sciences Maryland Department of Commerce



Dr. Lisa Dunkle Vice President, Clinical Development Global Medical Lead Novavax

Ulyana Desiderio serves as the Director of BioHealth and Life Sciences at the Maryland Department of Commerce. She leads efforts that support the growth of Maryland's life sciences ecosystem, including job creation, capital investment and new business formation. Prior to joining Commerce, Ulyana served as Chief Scientific Officer for the American Society of Hematology, the largest international medical association dedicated to blood diseases. Ulyana holds B.S. degrees in Biological Sciences and Chemistry from Drexel University and a PhD in Biochemistry and Molecular Biology from the Johns Hopkins Bloomberg School of Public Health.

A graduate of Wellesley College and Johns Hopkins School of Medicine, Dr. Lisa Dunkle's career includes a former position of Professor of Pediatrics and Microbiology at St. Louis University School of Medicine, where her research interests were focused on clinical research on antiviral agents, prior to her 30+ year career in clinical drug development in the pharmaceutical industry. As Executive Director of Antiviral Clinical Research, Bristol-Myers Squibb, Dr. Dunkle built the division and headed the teams that developed Videx® and Zerit® for treatment of HIV and Baraclude®, for the treatment of Hepatitis B. As Senior Vice President, Drug Development, Achillion Pharmaceuticals, she built the Drug Development team and headed development of the company's first antiviral agent for HIV and HBV, elvucitabine. As Senior and Executive Director of Antiviral Clinical Research, Schering-Plough, she headed the team that developed a novel CCR5 antagonist, vicriviroc, for the treatment of HIV. Also served as subject-matter expert on Licensing teams for vaccine development, including cell-culture-derived influenza vaccine. In 2011, Dr. Dunkle joined Protein Sciences Corporation as Chief Medical Officer, where she headed the clinical development of the first purified recombinant protein influenza vaccine. Following retirement from Protein Sciences, in the midst of the global coronavirus pandemic, she was recruited to my current role as Vice President of Clinical Development at Novavax to head the registrational development of our recombinant protein vaccine for SARS CoV-2 in collaboration with NIH and Operation Warp Speed. Honors include Fellow, Infectious Diseases Society of America, Who's Who in America and Distinguished Alumna of Johns Hopkins University (2011). Current research interests include clinical development strategies, especially for novel recombinant protein vaccines for emerging vaccine-preventable infectious diseases.



Bill Enright Chief Executive Officer Vaccitech

William "Bill" Enright is a seasoned biotech executive with more than thirty years of experience in building and financing both privately held and publicly held companies. Mr. Enright is currently Chief Executive Officer of Vaccitech, Ltd. Prior to Vaccitech, Mr. Enright spent more than ten years at Altimmune (NASDAQ: ALT) as a Director, President & CEO, moving multiple programs into clinical testing, completing several acquisitions and eventually taking the company public. Prior to joining Altimmune, Mr. Enright spent six years with GenVec, Inc. (acquired by Precigen) with increasing responsibilities including the Head of Business Development. Mr. Enright has raised more than \$300 million through private, public and non-dilutive financings. Mr. Enright brings a breadth of experiences in a variety of positions within the life science/biotech industry, including time as a consultant, a bench scientist and 12 years with Life Technologies, Inc. (acquired by Thermo-Fisher), working in various senior level licensing, business management, manufacturing and research roles. Mr. Enright received a Master of Arts in Molecular Biology from SUNY at Buffalo and a Master of Science in Business Management from Johns Hopkins University.



Matthew Hepburn, MD Director, COVID Vaccine Development HHS-DoD Countermeasures Acceleration Group Dr. Hepburn is currently the Vaccine Development Lead for the Countermeasures Acceleration Group (CAG), formerly known as Operation Warp Speed, a partnership between the Departments of Health and Human Services (HHS) and Defense (DoD) founded in May 2020 to help accelerate the development of COVID-19 vaccines. Prior to this position, Dr. Hepburn served as the Joint Project Lead of Enabling Biotechnologies for the Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense. In this role, he was responsible for establishing a start-to-finish capability to develop vaccines and therapeutic solutions against current future biological threats. Due to the creation of this foundational capability, Dr. Hepburn and the Enabling Biotechnology team implemented the DoD Vaccine Acceleration Project, which provides key investments to advance vaccines and antibody therapeutic efforts, with special emphasis on acceleration of manufacturing these products and clinical trials. These investments also provided critical initial actions to enable Operation Warp Speed. Dr. Hepburn served 23 years in the United States Army as an infectious diseases physician, retiring as a Colonel. His final assignment was as a Program Manager at DARPA (Defense Advanced Research Projects Agency), the research and development agency of DoD responsible for the development of emerging technologies for use by the military. Dr. Hepburn served there for nearly six years (2013-2019) and implemented numerous breakthrough investment programs to prepare for the current pandemic. These investments led to improved infectious diseases forecasting, better diagnostics and medical care in resource-limited settings, and development of vaccine and therapeutic products. A significant investment in rapid antibody discovery and scaling was the Pandemic Prevention Platform aimed at discovery of antibodies and product into clinical trials in 60 days. These investments were applied during the current pandemic, leading to many of the current therapeutic antibody portfolio of investment by Operation Warp Speed and the Department of Defense. Concurrent with the first two years at DARPA, Dr. Hepburn also served on the research and development team at the newly Research, Development and Acquisitions Directorate at the Defense Health Agency. From 2010-2013, he served as Director of Medical Preparedness on the White House National Security Staff. In this role, he was responsible for leading interagency policy process to address the lessons learned from the H1N1 influenza pandemic.



Kazem Kazempour President and Chief Executive Officer Amarex Clinical Research



Beth Maloney President Palladian Partners, Inc., an Altarum Company

In 1998, Kazem Kazempour co-founded Amarex Clinical Research, LLC, a full-service international contract research organization (CRO) providing clinical trial services to the pharmaceutical, biotechnology and medical device communities. For over 30 years, Dr. Kazempour conducted clinical research activities with the National Institutes of Health (NIH) and numerous other research centers, participated in many DSMBs and presented to the U.S. FDA on more than 100 clinical products. He has also presented to regulatory agencies in Europe and Asia. Dr. Kazempour has worked in many therapeutic areas, including but not limited to, vaccines, anti-infectives, anti-virals, AIDS and cardiovascular diseases. Additionally, Dr. Kazempour served as Senior Staff Fellow and Mathematical Statistician at the U.S. FDA, supervising and conducting independent statistical analyses of clinical trials and reviewing statistical sections of IND/NDA submissions. He currently teaches at George Washington University and sits on GW's Regulatory Affairs Advisory board. Dr. Kazempour received his PhD in Statistics from Colorado State University, Fort Collins.

Beth Maloney joined Palladian Partners, now an Altarum company, in early 2008—eight years after Palladian was first a client of hers at an Internet startup company. Since taking on the role of President of Palladian in 2011, the company has expanded strategic communications and digital strategy offerings in service to NIH, FDA, and CDC leadership.Ms. Maloney has led the strategic planning and implementation of digital initiatives that include the awardwinning American Recovery and Reinvestment Act website for the National Institutes of Health Office of the Director; the U.S. Department of Health and Human Services' Office on Women's Health website; the NIH National Institute on Drug Abuse low-literacy website; and solutions for the National Center for Advancing Translational Sciences and NIH Eunice Kennedy Shriver National Institute of Child Health and Human Development. Named a 2009 Rising Star by Federal Computer Week, Ms. Maloney has more than 20 years of experience focused on digital solutions and takes pride in Palladian's support to our country's leading biomedical research and public health organizations; especially in the recent 18 months during which Palladian has been very involved in the NIH's communications and outreach response to the COVID-19 pandemic. Ms. Maloney remains active in the communications and technology network within Washington, DC, serving as a past executive officer of the board of the Armed Forces Communications and Electronics Association Bethesda Chapter and as the first and founding president of The Children's Inn at the NIH Young Ambassadors Council from 2011 to 2015. She joined the board of directors of The Children's Inn at NIH in 2012 and currently serves as the immediate past chair of the board. She co-founded the local DC Health 2.0 Meetup in 2009 and served as event moderator for four years before the pandemic disrupted events. She is also an active member of the Washington D.C./Baltimore Chapter of the Young Presidents Organization.



Michael Nestor, PhD Scientific Engagement Lead, Johnson & Johnson Innovation – JLABS @ Washington, DC

As the Scientific Engagement Lead for Johnson & Johnson Innovation – JLABS @ Washington, DC, Michael is responsible for external engagement with regional academic research institutions, start-ups and investment partners and portfolio management. Prior to that, Michael served as the Executive Branch American Association for the Advancement of Science, Science and Technology Policy Fellow in the Office of Science at The Department of Energy and as the Director of Neural Stem Cell Research at The Hussman Institute for Autism. Michael received his PhD in Neuroscience from The University of Maryland, School of Medicine and completed postdoctoral fellowships at the National Institutes of Health and The New York Stem Cell Foundation, where he was also a Staff Scientist.



KaShauna Rohlehr, MBA, PMP Associate Director - Alliance, Program and Project Management GSK

KaShauna G. Rohlehr is a highly motivated, results-driven technical and project management professional with 16+ years of experience in the pharmaceutical industry. Over her career, she has held positions within production, quality, technical, and supply chain organizations supporting vaccines and biopharmaceuticals manufacturing. She has been employed with GlaxoSmithKline (GSK) for 11 years, where she is currently Associate Director of Alliance, Program and Project Management. Prior to joining GSK, she worked for Merck & Co., Inc. in West Point, PA. KaShauna holds a B.S. in Chemical Engineering from the University of Virginia, a Master in Business Administration (MBA) from Drexel University and the Project Management Professional (PMP) certification. She is actively involved in her community as a member of the National Society of Black Engineers (NSBE), Delta Sigma Theta Sorority, Inc., and Jack & Jill of America, Inc.



Martin Rosendale Chief Executive Officer Maryland Life Sciences

Martin is the Chief Executive Officer of the Maryland Life Sciences, a division of the Maryland Tech Council, a partner with Newport LLC, and a partner at WMCS Investments. An engineer turned microbiologist and industry leader, Martin is passionate about the human and business value of technology, life sciences, and biotechnology. A five-time CEO and twice company founder, his experience spans public, private and not-for-profit businesses. He has launched, branded, acquired or commercialized more than 10 products and companies. Over 30 years of experience, and a strong drive to achieve and help, enable Martin to work through complexity toward insight and solutions to grow businesses. Martin has raised equity capital for public and private companies and non-dilutive capital through strategic partnerships. He led a biotherapeutics company through a period of hyper growth taking the company from first sale to \$200 million in annual revenue in three years. He worked with the Centers for Medicare and Medicaid Services to establish Medicare reimbursement for a complex product category. He also facilitated the merger of the two largest technology industry organizations in Maryland, forming the Maryland Tech Council and strengthening its industry presence.



Joseph Sanchez, PhD, MBA Director, Science Engagement & STEM Programming, R&D North America AstraZeneca

Joseph Sanchez spent 20+ years as a research scientist and student mentor in academic, government and biopharmaceutical settings. As a career research scientist and educator, Joe has a long history of building productive partnerships between academia, government and industry peers to address the challenges of strategic workforce preparedness for the biopharmaceutical industry as a whole. In his current role within Global Corporate Affairs, he leads STEM programming for AstraZeneca in Northern America and supports efforts of the public-private ecosystem in each of AstraZeneca's R&D national hubs. Joe received his PhD in Molecular Genetics from the University of Rochester and his MBA from the University of Colorado.



Kelly Schulz Secretary Maryland Department of Commerce

Kelly M. Schulz brings a wealth of knowledge to the Maryland Department of Commerce from her years of experience working in the government, in the private sector and as a small business owner. She had previously served as the Secretary of the Maryland Department of Labor since her confirmation in February 2015 and is also a former member of the Maryland House of Delegates. At Labor, she was responsible for managing an agency with nearly 2,000 employees and an operating budget of more than \$375 million. Under her leadership, Maryland's apprenticeship program grew to its highest level since 2008, with more than 10,000 apprentices statewide. The Department's Employment Advancement Right Now (EARN) Maryland program received national recognition for both innovation and effectiveness and was named one of the Top 25 programs in the 2018 Innovations in American Government Award competition. A former member of the Maryland House of Delegates representing Frederick County, she served on the Economic Matters Committee from 2011- 2015. In addition to local issues, then Delegate Schulz took special interest in legislation relating to banks and other financial institutions, business, occupations and professions, economic development, labor and employment, unemployment insurance and workers' compensation. Prior to embarking on a career of public service, Secretary Schulz sold real estate, worked as a program manager for a defense contractor and was a part-owner of a cyber security firm. She has received several awards including the Outstanding Recent Alumna Award from Hood College in 2011, and is proud to participate as a member in many local community organizations including the Libertytown-Unionville Lions Club and the Walkersville Volunteer Fire Company. Kelly is also a past Board member of the Frederick County Habitat for Humanity.



Brian Stamper is the Senior Director of Manufacturing of the Kite, a Gilead Company cell therapy commercial manufacturing facility in Frederick, MD. He has over 20 years in the industry, including roles at Eli Lilly, AstraZeneca, and Lonza where he worked in Process Development, Manufacturing Sciences and Technology, and in Manufacturing. He has a BS in Biochemistry from Indiana University, an MS in Biological Engineering from Purdue, and an MBA from Johns Hopkins.

Brian Stamper Senior Director of Manufacturing Kite, a Gilead Company



Brad Stewart Senior Vice President of Business Development, Montgomery County Economic Development Corporation

Brad Stewart is a serial biotech entrepreneur now working to grow Montgomery County's economy, which approaches \$100 billion per year and is the leading economic driver of Maryland. Brad leads an expert team of economic development specialists focused on growing a diverse cross-section of businesses here—including the life sciences, technology, cybersecurity, defense and hospitality. MCEDC helps accelerate business growth for companies, foster entrepreneurship, and leverage our incredible resources, including 18 federal agencies (e.g., NIH, NCI, NIST, NOAA) and 38 federal labs which are headquartered in Montgomery County. Brad also chairs Maryland Life Sciences and is Vice-Chair of the Maryland Tech Council. A fearless leader who's invested his career in building and turning around life sciences companies to maximize shareholder value, Brad thrives on complex strategic opportunities. He has successfully executed against challenges repeatedly while commercializing companies on a global scale. An experienced senior executive, he has a record of success in many specialty-areas of the life sciences industry including: immunology, oncology, transplant, orphan drugs, diagnostics, development and management of joint ventures, and extensive management consulting and corporate strategy assignments. Previously Brad served as Chief Executive Officer of Immunology Partners and Chief Executive Officer of Cylex, Inc., where he executed a turnaround for an early stage, venture capital backed company (Roche, Siemens, Canaan Partners).



Silvia Taylor Senior Vice President, Global Corporate Affairs and Investor Relations Novavax



Stephen Thomas Professor, Health Policy & Management, School of Public Health and Director, Maryland Center for Health Equity, University Maryland College Park

Ms. Taylor is senior vice president, investor relations and corporate affairs with responsibility for investor relations, public relations, and corporate communications activities at Novavax. She brings more than 25 years of communications and commercial leadership to Novavax. Most recently, she was vice president of global corporate affairs and communications at Autolus Therapeutics plc, where she led all financial, scientific, and corporate communications. Prior to Autolus, Ms. Taylor was senior vice president of global investor relations and corporate affairs at Sucampo. Earlier in her career, she held positions of increasing responsibility at MedImmune LLC, the global biologics arm of AstraZeneca, including head of marketing responsible for the commercialization of the company's respiratory syncytial virus and influenza franchises, as well as roles at Pfizer, where she served in key brand and consumer marketing roles. She has also worked in public relations and communications roles in agency and nonprofit settings. Ms. Taylor earned a master of business administration degree from Columbia University and a bachelor of arts degree in foreign affairs from University of Virginia.

Dr. Stephen B. Thomas is Professor of Health Services Administration, in the School of Public Health and Director of the Maryland Center for Health Equity at the University of Maryland in College Park. He has developed a significant network of relationships across multiple health disparity influencing sectors including: academic researchers; healthcare providers and service organizations; community leaders; and local, state, and federal policymakers. He has served as PI (joint with Dr. Quinn) for our Center of Excellence in Race, Ethnicity and Health Disparities Research (P20 MD006737, NIMHD). He has specific expertise in the development. implementation and evaluation of minority health and health disparity interventions. He has certificates in Bioethics and a proven record of success with recruitment and retention of racial and ethnic minority populations in biomedical and public health research. He also has extensive experience in overcoming barriers associated with the legacy of the Syphilis Study Done at Tuskegee (1932 - 1972) and conducting scientifically sound and culturally tailored community based interventions designed to eliminate racial and ethnic disparities to achieve health equity. This experience informed the basis for recruiting study participants through trusted venues, and providing culturally tailored training for all community based providers and academic researchers who may interact with the study participants.



Robert van den Berg, PhD, MBA Head of the Data Sciences & Computational Vaccinology Group GSK

Chris leads the Global Manufacturing Leadership Team (GMLT), which includes the Site Operational Leaders and cross-functional partners from Quality, MSAT, IT, HR and Finance. Chris is responsible for viral vector, clinical and commercial cell therapy operations, developing manufacturing strategy, executing site operations, ensuring cGMP compliance, establishing new capabilities, advancing process and analytical technologies, building teams and developing people. Additionally, Chris is responsible for culture development at our sites driving an inclusive culture of safety, quality and production excellence. Chris is a global business leader with over 30 years of biotech and pharmaceutical operations experience across various functions within Technical Operations. Chris joined Kite in 2018 as Site Head of Cell Therapy Operations in Fredrick, MD. Prior to that Chris was with AstraZeneca, where he was Vice President & Site Head of Operations for their monoclonal antibody site. Previously Chris spent 10 years at Novartis in positions of increased responsibility, including Vice President & Site Head of Vaccines Operations, and Vice President & Global Head of Technical Operations Strategy. In this role Chris was responsible for product life cycle management, long range production planning and manufacturing network strategy for a network operating in eight countries. Prior to his time at Novartis, Chris held various manufacturing and engineering leadership roles at Amgen.



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KEYNOTE SPEAKER



Dr. David Agus Chief Executive Officer, Ellison Institute, physician, author, CBS Medical Contributor

David B. Agus is one of the world's leading doctors and pioneering biomedical researchers. He is a professor of medicine and engineering at the University of Southern California's Keck School of Medicine and Viterbi School of Engineering. He is the founding director and CEO of the Lawrence J. Ellison Institute for Transformative Medicine of USC. A medical oncologist, Dr. Agus leads a multidisciplinary team of researchers dedicated to the development and use of technologies to guide doctors in making health-care decisions tailored to individual needs. An international leader in new technologies and approaches for personalized healthcare, Dr. Agus serves in leadership roles at the World Economic Forum and other prestigious organizations. He is also a CBS News contributor. Dr. Agus' three books "The End of Illness", "A Short Guide to a Long Life" and "The Lucky Years: How to Thrive in the Brave New World of Health" are all New York Times and international bestsellers. He is a 2017 recipient of the Ellis Island Medal of Honor.



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David Anderson Senior Director, Quality Site Head Kite, a Gilead Company

David Anderson leads the Quality team at Kite's newest cell therapy manufacturing facility in Frederick, Maryland. He has a combined 18 years of biopharmaceutical experience with experience in GMP/GCP, development of small molecules, mAbs, ADCs, vaccines, plasmids, combination products and cell therapies. Through out his career he has had direct experience with 25 products spanning the lifecycle from discovery to post commercial retirement. David has held roles from hands-on manufacturing, process and analytical development, qualification/validation, project management, and Quality Systems design. Prior to joining Kite, he worked at MedImmune and Wyeth.



Suk See DeRavin Clinician, Genetic Immunotherapy Section, Laboratory of Clinical Immunology and Microbiology NIAID, NIH

Suk See DeRavin completed her medical training in Australia, specializing in pediatrics and subsequently completed her PhD in Primary Immunodeficiencies (PID). She continued her postdoctoral years working on retroviral gene therapy for Severe Combined Immunodeficiency at the Laboratory of Host Defenses at the National Institutes of Allergy and Infectious Diseases, National Institutes of Health. Upon return to clinical work, she has been involved with clinical trials for ex vivo CD34 hematopoietic stem/progenitor cell gene therapy for treatment of primary immunodeficiencies at the Laboratory of Clinical Immunology and Microbiology, NIAID, NIH. Suk See has been working on evolving approaches to functionally correct CD34+ HSPCs or primary cells such as granulocytes and lymphocytes for management of different clinical problems specific to different PIDs. Definitive functional correction of autologous CD34+ HSPC for gene therapy can be achieved by insertion of therapeutic gene using an integrating lentivector, or at a targeted site using CRISPR-Cas9 technology. She has also explored the utility of correcting mutations using the CRISPR/Cas9 system with a short oligo donor as well as repair of the mutation by base editing for clinical translation to treatment of appropriate patient groups. She has also demonstrated efficient functional correction of primary blood cells (granulocytes, lymphocytes) using mRNA transfection or gene correction (lymphocytes) for potential short-term control of infections in PID such as Chronic Granulomatous Disease and XMEN disease. She hopes to work in synergy with the vast technological advancement in developing safer and more efficient modes of therapy for patients with PIDs.



Doug Doerfler President and Chief Executive Officer MaxCyte

Doug Doerfler has 35+ years of vast experience in biotechnology product and company development, commercialization, and international financing. He was a founder of MaxCyte in July 1998. Previously, he was President, Chief Executive Officer and a Director of Immunicon Corporation. He also held various executive positions with Life Technologies, Inc. (now Thermo Fisher). Mr. Doerfler is an active life sciences industry advocate, serving as Chair Emeritus of the Maryland Tech Council and on the executive committee of the Biotechnology Innovation Organization. He received his BS in finance from the University of Baltimore School of Business and holds an Industrial Relations certificate.



Catherine Hanley Vice President and interim CDMO Business Unit Head Emergent BioSolutions

Catherine Hanley currently serves as vice president and interim head of Emergent's Contract Development & Manufacturing Organization (CDMO) business unit. Drawing on nearly two decades of biopharma and CDMO experience, Catherine joined Emergent to lead the company's marketing and customer experience teams. During her tenure, she directed the design and development of the CDMO business unit brand, including the execution of thought leadership programs, digital/inbound marketing strategies, and a wide range of multi-channel marketing and customer experience initiatives. Prior to joining Emergent, Catherine held a number of positions in marketing, business development, and operations at companies, including Cambrex, Lonza, and Alcami Corporation. She has helped launch new products and create first-to-market initiatives that transformed marketing in the pharmaceutical industry. In addition, Catherine has hands-on laboratory experience in biologics, including the manufacture of cell-based therapeutics for the treatment of cancers, severe burns, and Parkinson's and Crohn's disease.



Matthew Hewitt, B.A, PhD Senior Director, Scientific Solutions, Cell and Gene Therapy Charles River Labs

Matthew Hewitt, PhD, currently serves as Senior Director, Scientific Services, Cell and Gene Therapy (CGT) at Charles River Laboratories. Matt plays a critical role in driving CGT strategic vision as well as leading one of Charles River's CGT sites. Before joining the company, he was Head of R&D and Clinical Development for Lonza's Personalized Medicine Business Unit where he led development of the Cocoon manufacturing technology, a closed, automated, scalable cell therapy manufacturing solution. In addition, he developed and executed numerous collaborations across academia and industry that leveraged the Cocoon technology. Prior to Lonza, Matt led the Tumor Immunology and Microenvironment program at Bellicum Pharmaceuticals, which focused on improving cell therapy efficacy in solid tumors. He also led the Immunology group at the University of Pennsylvania's Gene Therapy Program, leading and contributing to numerous AAV gene therapy programs.



Jeffrey Hung General Manager Vigene Biosciences

Jeffrey has over 20 years of experience in the biotechnology industry. He joined Vigene in 2016 and orchestrated the acquisition of Omnia Biologics. He has also overseen Vigene's expansion into GMP manufacturing and new product areas such as biosensors. An experienced entrepreneur, Jeffrey was instrumental in successfully growing GenScript and SABiosciences, two previous companies, to IPO and acquisition stage, respectively. He also previously held the position of Chief Marketing Officer at ATCC. Jeffrey is the author of multiple patents, publications, and book chapters. He holds a PhD in genetics from Cornell University, an MBA from UC Berkeley, and a B.S. in biology from Peking University.



Jim Jackson Vice President, Manufacturing Operations and Site Head Kite, a Gilead Company

Jim comes to Kite from the MD Anderson Cancer Center, where he was Site Head and Head, Cell Therapies Manufacturing dedicated to manufacturing of a variety of clinical and experimental cell therapy modalities, including CAR-T. Prior to MD Anderson Jim was Executive Director, Drug Product Manufacturing at Regeneron Pharmaceuticals. Jim has additional manufacturing experience from GSK, Novartis and Merck.



Murat Kalayoglu, MD, PhD President Cartesian Therapeutics

Dr. Kalayoglu is co-founder and Chief Executive Officer of Cartesian Therapeutics, a fullyintegrated, clinical stage biopharmaceutical company developing novel cell and gene therapies to treat cancer, autoimmune diseases and respiratory diseases. Prior to Cartesian, he was co-founder and Chief Executive Officer of Topokine, which he led from concept to latestage clinical trials, followed by a successful sale to Allergan (now Abbvie; NYSE:ABBV). Prior to Topokine, he was co-founder and Chief Operations Officer of HealthHonors Corporation, which he led from concept to commercialization, followed by a successful sale to Healthways (now Tivity Health; NASDAQ:TVTY). Dr. Kalayoglu is a board-certified ophthalmologist who completed his residency and research fellowship at Harvard, MD/PhD in immunology at the University of Wisconsin-Madison, and MBA from the MIT Sloan School of Management.



Mike Klichinsky Co-Founder and Senior Vice President, Research Carisma Therapeutics

Mike is a co-inventor of the CAR Macrophage technology and a scientific co-founder of Carisma Therapeutics Inc. In his role as Vice President of Discovery Research, he oversees the research & discovery efforts of the company. Mike developed CAR Macrophages during his doctoral thesis under the co-mentorship of Saar Gill and Carl June at the University of Pennsylvania. Michael's scientific expertise is in the intersection of immunology, synthetic biology, cancer immunotherapy, and translational pharmacology. Mike previously earned a Doctor of Pharmacy degree from the University of Sciences in Philadelphia, and a PhD in Pharmacology from the University of Pennsylvania.



Dr. Bruce Levy Chief of Pulmonary and Critical Care Division, Brigham and Women's Hospital, Harvard Medical School

Dr. Bruce Levy is the Parker B. Francis Professor of Medicine at Harvard Medical School and Chief of the Pulmonary and Critical Care Medicine Division at Brigham and Women's Hospital. Dr. Levy's Airway Inflammation and Resolution "AIR" laboratory aims to identify new pathways to resolve pulmonary inflammation, infection or injury by understanding the roles of naturally-derived, specialized pro-resolving mediators in health, and then translating these findings to the pathobiology of important lung diseases, including ARDS. His work has helped lead to more than 200 peer-reviewed publications, over 10 patents awarded or pending, and continuous funding from the National Institutes of Health since 1993. He is an active participant in NIH grant review study sections. He is an elected member of the ASCI, AAP and Interurban Clinical Club. He is active in the American Thoracic Society and has served in several leadership roles for the ATS, including as Chair of the Publication Policy Committee and a member of the Board of Directors.



Craig Malzahn Vice President, Technical Operations RegenxBio

Craig Malzahn is Vice President of Technical Operations, overseeing process development, external and internal manufacturing, manufacturing sciences, engineering, and the supply chain. Craig has over 25 years of experience in biopharmaceuticals including manufacturing of vaccines, antibodies, and gene therapies. He joined RegenxBio in 2019 from GlaxoSmithKline, where he was Vice President and Site Head for GSK's biopharm large-scale commercial manufacturing site. As Site Head, he oversaw successful new product introductions, license applications, regulatory inspections, contract manufacturing, a large-scale capacity expansion, and commercial supply of multiple blockbuster commercial products. Prior to GSK, Craig led the transformation of the supply chain from clinical to a commercial supply and was program lead for an anthrax anti-toxin collaboration with the U.S. Government at Human Genome Sciences. He held increasing levels of responsibility in vaccine manufacturing at Baxter and North American Vaccine. Craig has a MS in Biotechnology from Johns Hopkins University and a BS in Biology from Virginia Tech.



Sarah Meeks Senior Vice President, Business Development MaxCyte

Dr. Tahseen

Mozaffar

Professor of Neurology

University of California, Irvine Sarah has over 20 years of senior-level management experience in business development in the advanced therapies sector. She is currently Senior Vice President of Business Development at MaxCyte, Inc. Previously, she was the Vice President of Business Development for Synpromics Ltd. from 2016 until its acquisition by AskBIO in 2019. From 2013 to 2018, she served as Adjuvant Partner's Chief Scientific Officer, leading business development and corporate strategy for a number of clients, including large cap pharmaceutical companies, biotechnology companies, technology providers, and major medical centers with a focus on cell and gene therapy. She is on the founding team of Cardiogen Sciences, Inc. (acquired in 2015 by Audentes Therapeutics) and was the Senior Director, Technology Sections at the Alliance for Regenerative Medicine including launching and managing the Gene Therapy Section and the Genome Editing Task Force. Prior to Adjuvant Partners, Sarah held the position of Vice President, Business Development for Orasi Medical, Circle Biologics and BioE. Sarah holds a Doctorate in molecular biology and bioethics from the University of Minnesota and a Bachelor of Science degree in biochemistry from the University of Wisconsin. From 1995-2004, she completed a post-doctoral fellowship with James M. Wilson, MD, PhD in the University of Pennsylvania's Human Gene Therapy Program focused on in vivo muscle directed gene therapy as well as served as a licensing manager for the UPENN Center for Technology Transfer and continued her education taking classes in the MBA program at the University of Pennsylvania's Wharton School.

Dr. Tahseen Mozaffar is a Professor of Neurology and Pathology and Laboratory Medicine and the Vice Chair for Research in the Department of Neurology at University of California, Irvine. He is the Director of the UC Irvine-MDA ALS and Neuromuscular Center and the Director of the UC Irvine Neuromuscular Program. Dr. Mozaffar serves as chair of one of the biomedical committees and the institutional liaison for Trials Innovation Hub for the Center for Translational Sciences Award (CTSA) at University of California, Irvine. He is the Principal Investigator for UCI-NEXT, the NeuroNEXT award to the University of California, Irvine, one of 25 such NeuroNEXT sites funded by the NINDS/NIH. He is also the Lead Investigator for a multicenter NIH/NIAMS funded Natural History Study in sIBM (INSPIRE-IBM), scheduled to start July 2021. He is actively involved in clinical and translational research in Neuromuscular Disorders, including currently serving as Principal Site Investigator on over a dozen clinical trials in myasthenia gravis, rare and ultra-rare myopathies and in immune myopathies. He has co-authored over 175 peerreviewed publications and has authored or co-authored over a dozen book chapters and invited reviews. As an expert in these rare and ultra-rare myopathies, he is actively sought as an advisor by pharmaceutical companies for trial design and identifying disease targets. He serves on a global advisory board for Pompe at Amicus and for Spark Therapeutics. He is a standing study section member for the ETTN study section at the NIH. He is a member of the Medical Advisory Board for the Myositis Association and serves as the MAB Liaison to the Board at TMA. He served on the conference planning committee for the MDA Clinic Directors Conference, 2nd Global conference on myositis (GCOM), the 3rd Global Myositis Conference, the Muscle Study Group, and the International Congress on Neuromuscular Disorders. He is the Director of the nationally recognized Annual UC Irvine Neuromuscular Colloquia, now in its 10th year of existence and Director of the Annual Neuromuscular Pathology Colloquium, now in its 5th year.



Peter Olagunju Chief Technology Officer TCR2 Therapeutics

Mr. Peter Olagunju joined TCR² in 2021 as Chief Technical Officer. He brings over 20 years of experience in cell and gene therapy, clinical development, program management, manufacturing and technical operations. Prior to joining the company, he was Senior Vice President of Technical Operations at FerGene Inc., where he led the technical operations function for the commercialization of a gene therapy for bladder cancer. Before that, Mr. Olagunju was Vice President of Global Patient Operations at bluebird bio, Inc., where he held several roles of increasing responsibility and was the program lead and functional head of manufacturing supporting the European approval for ZYNTEGLO®, a transformational gene therapy for Transfusion dependent Thalassemia. Earlier in his career, he held senior positions in Commercial Technical Operations and served as the Head of Quality at Dendreon Corp. and ZymoGenetics, Inc. Mr. Olagunju holds an M.B.A. from the University of Washington and a B.S. in Biology from the University of Illinois at Urbana-Champaign.



Nicholas Ostrout, PhD Global Head of Commercial Development



Jon Rowley, PhD Chief Product Officer RoosterBio

Dr. Nicholas Ostrout leads the commercial development team for the Personalized Medicine Business Unit at Lonza. Dr. Ostrout earned his PhD in Immunology from Case Western Reserve University and has been working in sales, marketing, and business development for most of his career. Nicholas most recently came from Miltenyi Biosciences. Dr. Ostrout is primarily focused on launching the Cocoon Platform into the market and scaling out manufacturing capabilities for cell and gene therapies with the Cocoon both internally within Lonza and with external partners. Nick's primary goal, as part of Lonza's PerMed team, is to make these lifesaving cell therapies at a lower cost, and on a higher scale, in order to be able to treat as many patients as possible.

Jon A. Rowley, PhD, is the Founder and Chief Product Officer of RoosterBio Inc. Jon started RoosterBio in 2013 as part of his personal quest of having the biggest impact possible on the commercial translation of technologies that incorporate living cells, including cellular therapies, engineered tissues, and tomorrow's medical devices. With a PhD from the University of Michigan in Biomedical Engineering, Jon has authored over 35 peer-reviewed manuscripts and has 20 issued or pending patents related to biomaterials development, tissue engineering, and cellular therapy. He started his industry career at BD as a scientist and R&D manager in a Cell & Tissue Technologies group focused on applying high throughput screening technologies to cell therapy media development and tissue engineering. Jon then contributed to the clinical development of Aastrom Biosciences' Tissue Repair Cell product, where he was Senior Manager of Process Development responsible for manufacturing process improvements and cell delivery to the patient. Jon also spent 5 years as Director of Innovation and Process Development in Lonza's Cell Therapy CMO business.



Harish Santhanum Senior Director, Manufacturing Science and Technology Kite, a Gilead Company

Harish Santhanam is the site MSAT head for Kite's cell therapy manufacturing site in Frederick MD. He has over 20 years of Pharmaceutical and Biologics Manufacturing experience. His team supports the start-up, validation and manufacturing of commercial cell therapies. In his previous role at Merck, he led the MSAT function for the start-up of a "Greenfield" manufacturing site in Dublin Ireland for Biologics manufacturing. Previously, Harish worked for over 14 years at Eli Lilly in various roles in both Indianapolis, Indiana and Cork, Ireland. He had been involved in both internal and external manufacturing at Lilly, supporting both Biologics and Insulins. Prior to Lilly, Harish spent 5 years in Pfizer supporting Small Molecule Process Development. He has a MS in Chemical Engineering from the University of Illinois and an MBA from the University of Chicago.



Michael Singer MD, PhD Chief Scientific Officer Cartesian Therapeutics

Dr. Singer is Chief Scientific Officer at Cartesian Therapeutics. Prior to Cartesian, he was cofounder and Chief Scientific Officer at Topokine Therapeutics and Health Honors. He led clinical development for several monoclonal antibodies at Novartis. His research spans over 20 years in the basic and clinical sciences, with award of competitive grants and publications in journals such as Nature and PNAS. Dr. Singer is a board-certified ophthalmologist and admitted to practice patent law. He has served as a Surgeon in the Veterans Health Administration and teaches at Yale. Dr. Singer completed residency at Harvard and holds a BS, MD, and PhD from Yale University.



Ben Skowronski Senior Director, Maryland Office Lead, Associate CRB

Ben is currently the Maryland Office Leader for CRB's Rockville office. CRB is a globally integrated company providing architecture, engineering, construction, and consulting services for some of the most sophisticated spaces in the world. Our biopharma regulatory consultants are focused on achieving successes for CRB life sciences' clients. Ben has worked in the AEC industry for over 17 years, solely focused on the life science industry the last eleven years. He is the Chapter President and an active member of the Chesapeake Bay Area Chapter of ISPE (International Society of Pharmaceutical Engineers). He is very active in the Biohealth Capital Region, is a past member of the Bioprocessing Advisory Board at Frederick Community College, past board member of Biobuzz, and currently serves on Zaching Against Cancers board.



Thomas VanCott, PhD Global Head of Product Development, Cell and Gene Therapy Catalent Biologics



Steven Walker Senior Director and Head, Global Marketing - Early Portfolio Strategy GSK

Dr. VanCott joined Catalent through its acquisition of Paragon Gene Therapy in 2019. Prior to Paragon he spent 14 years as the President and Chief Executive Officer of Advanced Bioscience Laboratories Inc. (ABL), and previously held several positions at the Henry M. Jackson Foundation for the Advancement of Military Medicine. Dr. VanCott received a doctorate in physical chemistry from the University of Virginia, and a bachelor's degree in chemistry from Dickinson College, Carlisle, Pennsylvania.

Steven is currently the Head of Global Marketing - Early Commercial Strategy for Vaccines at GlaxoSmithKline (GSK). He has provided strategic and tactical leadership to biotechnology and pharmaceutical companies around the world for over 20 years. His past business and research experience, has been focused primarily on life science products and companies with a focus on new product strategy and in-line product commercialization within the fields of immunology, respiratory, inflammation, dermatology, rheumatology, infectious disease, vaccines, cardiovascular disease and neuroscience. Steven has diverse global experience creating corporate, regulatory and commercial strategies for life science companies. Steven is also the founder of the Cellandtech Group, LLC an international commercial strategy and analytics firm, serving life science companies. Prior to joining GSK, Steven was Chief Business Officer for an international regulatory consulting firm based in Alexandria, Virginia and also worked for other industry leading biotechnology and pharmaceutical companies. Outside of work, Steven continues to demonstrate his passion of science and shares his leadership, as a Board Director for Maryland Tech Council and as an Advisor to life science entrepreneurs.



Nicole Wood Senior Regional Director, State Advocacy PhRMA

Nicole Palya Wood serves as the Senior Director of State Advocacy for the Mid-Atlantic Region. She is responsible for developing and implementing comprehensive state legislative and engagement strategies in support of PhRMA's priorities in Delaware, Maryland, Pennsylvania and Virginia. A native of Virginia, Nicole graduated from James Madison University and caught the bug for legislative affairs while working as a legislative aide for Senator Frank Ruff in the Virginia State Legislature. She would later represent the National Rifle Association as the State Lobbyist in the Mid-Atlantic and Southern Region as well as serving as Manager of Government Affairs for TAP Pharmaceuticals. On the National stage Nicole served as the Director of Legislative Affairs for the Federal Home Loan Bank of Atlanta lobbying the United States House Financial Services and Senate Banking Committees. She continued with her work on rural housing and community banking issues as the Senior Lobbyist for America's Community Bankers, where she also served as a resource on farm credit issues. At the National Grange, Nicole served as the Legislative Director, leading the National legislative agenda and partnered with PhRMA to advocate for rural healthcare and tele-health issues before Congress. Nicole was appointed to the Virginia State Chamber Commerce and the Virginia Center for Health Innovation Board of Directors in 2015.



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Cellbox Solutions

Cellbox Solutions, founded by Professor Dr. Kathrin Adlkofer, has developed portable CO2 incubators to provide a safe environment for the transport of living cells and biological structures under laboratory conditions. The idea was born at the Fraunhofer Research Institution for Marine Biotechnology and Cell Technology (EMB) in Lübeck and the company has expanded internationally to include Cellbox Solutions, Inc. in the US. We aim to find solutions to each and every cell transport challenge. Learn more at cellbox-solutions.com.

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DPR Construction is a unique technical builder with a passion for results. Ranked No.1 in pharmaceuticals by ENR, and ranked in the top 50 general contractors in the country since 1997, we are a national contractor and construction manager that has grown with our customers by delivering measurably more value. DPR Construction's significant experience in life sciences is driven by a deep respect for the work completed in these facilities, as well as their unique construction requirements. Supporting the industry from concept planning through construction including brownfield, greenfield, retrofits, lab renovations, upgrades, pilot facility, manufacturing facility and every - thing in the middle, our unique range of expertise provides customers with an experienced contractor to plan, coordinate, build and validate projects of all sizes and complexities. Whether a multi-million-dollar technical facility or a lab renovation, we execute every project with relentless accountability. We listen to your goals. We develop strategies based on your business. We track our performance. We do everything we can to earn your trust and build great lasting relationships. Learn more at www.dpr.com.

EzBiome

EzBiome is a Maryland company providing world-class solutions and services on microbial identification, microbiome, and bioinformatics expertise worldwide. Pioneered in precision taxonomy, curated reference databases, and cutting-edge genomics, EzBiome offers the most accurate, definitive, and cGMP-compliant microbial identification solutions to revolutionize microbiology. Our most extensively cited (11,000+) and widely used (50,000+ users) bioinformatic platform and industry-leading laboratory solutions deliver quality, rigor, and reliability in microbiome studies, and expedite the discovery and development of companion diagnostics and therapeutic solutions for microbiome-related diseases. EzBiome serves the global community to educate, inspire and harness microbiology and microbiome treasures for the benefit of mankind. Learn more at **ezbiome.com**.

FHI Clinical

FHI Clinical is a full-service contract research organization (CRO) with the global expertise, responsive approaches and proven solutions to manage complex clinical research in resource-limited settings around the world. Our mission is to address unmet research needs and achieve maximum social impact by supporting the development of life-saving vaccines and medicines. For more information, visit **fhiclinical.com**.

IDT Biologika

IDT Biologika is a global biopharmaceutical contract development and manufacturing organization that specializes in the production of innovative live viral vaccines, viral vectors for gene and immune therapeutics, oncolytic viruses, virus-like particles as well as fill/finish of other sterile liquid and lyophilized biologics. We offer clients a single source CDMO partner with seamless end-to-end solutions and the ability to nimbly scale projects from development through to commercialization. Our fully integrated services at our sites in the USA and Germany are underscored by our commitment to quality and operational excellence in our best-in-class process and cGMP (up to BSL2) manufacturing capabilities meeting FDA and EMA standards. Learn more at **idt-biologika.com**.

InfoPathways

We are Allies and Advocates for HumanIT. Specializing in complex environments like Biotech, we provide the innovative solutions and technology that keep your processes efficient and your data secure. We understand the business and technology needs of research and pharmaceutical firms. We deploy and support technologies used in BSL3/ABSL3 environments and non-containment laboratories, and have experience with AALAC, BMBL, gMP, gLP and HIPAA requirements. Our experience includes emerging and established pharmaceuticals, vaccine development, and other research firms. Learn more at www.infopathways.com.

Maryland Tech Council

The Maryland Tech Council (MTC) is a collaborative community that is actively engaged in building strong technology and life science industries by supporting the efforts of our individual members. We are the largest technology and life sciences trade association in the state of Maryland, and we provide value by giving members a forum to learn, share, and connect. MTC brings the region's community together into a single, united organization that empowers our members to achieve their business goals through advocacy, networking and education. The vision for the Maryland Tech Council is to propel Maryland to become the number one innovation economy for life sciences and technology in the country. For more information, visit mdtechcouncil.com.

Mount St. Mary's University

Mount St. Mary's University offers a Master of Science in Biotechnology and Management degree that can be paired with certificates in Data Science, Organizational Development, Project Management, and Quality Assurance & Regulatory Science. Designed for working adults in biotechnology or related industries, classes are offered in-person, online or in hybrid format. Taught by leading experts in the field with hands-on experience, the Mount's graduate and certificate programs focus on furthering your career in biotechnology while also assisting you in honing your business and ethical leadership skills. Learn more at msmary.edu/graduate.

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Recruitment Partners LLC

Recruitment Partners LLC is a Maryland based company that is tackling a critical challenge to advancing Alzheimer's disease and dementia treatment: recruitment to research studies. Using our deep knowledge of the AD/ADRD landscape, we help academic researchers, product companies, and industry sponsors develop recruitment plans for funding applications, evaluate developing products, and boost funded study enrollment rates. Working directly between sponsors, trial sites and care communities, we advance the common interests to innovate, provide patient-centered care and identify improved care options for Alzheimer's disease and related dementias. Learn more at www.recruitmentpartnersllc.com.

ShareVault

ShareVault's secure document sharing software enables companies to protect, manage and share confidential information.. With unique life science specific features, the solution has been exclusively endorsed by BIO and over 50 affiliates for business transaction due diligence for M&A, fundraising, IPO, etc., secure central repository for content consolidation to mitigate information security risks, collaboration and sharing for partnering, service providers/CROs, remote work and other external parties, audit and compliance for inspection ready regulatory review with support for eCTD submissions, eTMF, 21CFR11 and HIPAA, and remote clinical trial site monitoring for reducing trial delays & disruption. Learn more at www.sharevault.com.

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University of Maryland, Baltimore County

UMBC's Biotechnology master's degree is designed to provide students with the skills sought by the biotechnology industry. The curriculum offers advanced instruction in the life sciences, along with coursework in regulatory affairs, leadership, management, commercialization and legal issues inherent to a life science-oriented business. Learn more at professionalprograms.umbc.edu/biotechnology/ biotechnology-graduate-programs/.



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The biotechnology industry is saving lives in Maryland, and beyond.

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Alexandria Real Estate Equities, Inc. (NYSE:ARE), an S&P 500[®] urban office REIT, pioneered the life science real estate niche in 1994 and is the longest-tenured owner, operator, and developer of collaborative life science, technology, and agtech campuses in AAA innovation cluster locations. Alexandria has established a significant presence in key locations, including Greater Boston, the San Francisco Bay Area, New York City, San Diego, Seattle, Maryland, and Research Triangle. Alexandria has a longstanding and proven track record of developing Class A properties clustered in urban life science, technology, and agtech campuses that provide our innovative tenants with highly dynamic and collaborative environments that enhance their ability to successfully recruit and retain world-class talent and inspire productivity, efficiency, creativity, and success.



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AstraZeneca is a global, science-led biopharmaceutical company that focuses on the discovery, development and commercialization of prescription medicines in Oncology and BioPharmaceuticals, including Cardiovascular, Renal & Metabolism, and Respiratory & Immunology. Based in Cambridge, UK, AstraZeneca operates in over 100 countries, and its innovative medicines are used by millions of patients worldwide.



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At AstraZeneca, we believe in the power of what science can do to transform serious diseases like cancer, heart disease, diabetes, COPD and asthma. We also know that breakthrough science doesn't happen in isolation. It happens through partnership.

We created the Open Innovation Platform to help us establish partnerships that will lead to the discovery and development of new medicines. These programmes are encouraging like-minded scientists from industry and academia to share their ideas and know-how to bring life-changing medicines to patients – together.

These collaborations could be at any stage of drug discovery – from the early idea through to early clinical development.

To find out how to submit a proposal on your idea, visit openinnovation.astrazeneca.com



Biologics in respiratory disease

Eosinophils are white blood cells that can worsen inflammation in the lungs for people with asthma, contributing to poor asthma control and more asthma attacks. In recent years, major advances in the understanding of respiratory disease pathways have propelled us into a new era of developing medicines that deliver scientific breakthroughs to address unmet patient needs in asthma and COPD.

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consists of 51.6 million square feet across 196 properties, including BXP Life Sciences with more than three million square feet in Boston, Cambridge, and Waltham/Lexington, Massachusetts; San Francisco and Los Angeles, California;

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Facility Logix specializes in the biotech industry and delivers novel building solutions, enabling bio-tech companies to produce or house healthcare products that will change the lives of patients around the world. We are one of only a few consulting firms that provides owners' representation; facilities planning; move and transition, project, and operational management implementation; and feasibility research/studies to the biotech industry. We are passionate about developing and providing facility lifecycle solutions to the life sciences industry in an attainable, multi-phased approach that's right-sized and specifically meets the needs and budgets of our diverse client base.



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At GSK's Rockville Center for Vaccines Research, innovation is at the heart of every-thing we do. We bring the brightest scientific minds together to develop novel vaccines and technologies to address unmet health needs. GSK has a legacy of contributing to global public health and leading in vaccine innovation. At our Rockville facility, it is that legacy that motivates us to set new benchmarks in vaccinology. We have a robust research and development program, including cutting-edge technologies and a portfolio of vaccine candidates to protect against respiratory syncytial virus – a leading cause of hospitalization in children globally.



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Horizon is focused on the discovery, development and commercialization of medicines that address critical needs for people impacted by rare, autoimmune and severe inflammatory diseases. Our pipeline is purposeful: we apply scientific expertise and courage to bring clinically meaningful therapies to patients. We believe science and compassion must work together to transform lives. Visit us to learn more on how we go to incredible lengths to impact lives.



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jlabs.jnjinnovation.com/locations/jlabs-washington-dc Johnson & Johnson Innovation – JLABS @ Washington, DC is a life science and healthcare incuba-tor offering lab, office, and conference space, and is designed to house up to 50 start-up companies from across the pharmaceutical, medical device, consumer and health technology sectors. JLABS @ Washington, DC serves as the hub for BLUE KNIGHT™, a joint initiative between JLABS and the Biomedical Advanced Research and Development Authority (BARDA), which aims to stimulate the innovation and incubation of science and technologies that may improve health security and response by supporting companies focused on public health threats and emerging infectious disease.



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MaxCyte is a leading provider of cell-engineering platform technologies driving the next-generation of cell-based therapies. The Company's technology is employed by leading drug developers, including all of the top ten global biopharmaceutical companies. MaxCyte has granted 13 strategic platform licenses to leading cell-based therapy developers. Through 2020, MaxCyte has granted licenses for more than 140 cell therapy programs, with 100+ licensed for clinical use. Our Flow Electroporation® technology and next-generation ExPERT® platform enable our partners to accelerate, streamline, and improve the drug development process. MaxCyte was founded in 1998 and is headquartered in Gaithersburg, Maryland, U.S.



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Novavax is a US-based biotechnology company focused solely on the development of innovative vaccines to solve the world's most pressing infectious disease challenges. Our proprietary recombinant nanoparticle technology platform combines the power and speed of genetic engineering to produce highly immunogenic nanoparticles. Novavax is conducting late-stage clinical trials for NVX-CoV2373, its COVID-19 vaccine candidate. NanoFlu™, its quadrivalent influenza nanoparticle vaccine, met all primary objectives in its pivotal Phase 3 clinical trial and will be advanced for regulatory submission. Both proteinbased vaccine candidates incorporate Novavax' saponin-based Matrix-M[™] adjuvant to enhance the immune response and stimulate high levels of neutralizing antibodies.

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For over 30 years, Scheer Partners has built an unparalleled reputation as a trusted and innovative full-service commercial real estate advisor for the biotechnology, life science and healthcare industries. Headquartered in suburban Maryland, with offices in Philadelphia and Boston, Scheer Partners has completed hundreds of transactions and leased/sold over 8 million square feet of scientific space stretching along the East coast. Services include: tenant and landlord representation, strategic planning consulting, facilities and construction management, investment sales, acquisitions, and development. Scheer Partners has the unmatched market knowledge, insight and ability to expertly address our clients' real estate needs and objectives.

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Located in the centre of the United Kingdom, the Midlands is both the heartbeat and the engine-room of the nation's economy. The Midlands is home to one of the most important Life Sciences ecosystems in the UK. The Midlands is home to more than 1200 Life Science companies and the second largest concentration of MedTech companies in the UK. It is a major centre for clinical research which stems from its high number of world class universities, research centres and incubators. Midlands Health Innovation is a collaboration of eight world-class Universities (Aston, Birmingham, Cranfield, Keele, Leicester, Loughborough, Nottingham, and Warwick), combining their collective excellence to unite the power of University research with the unique strengths of Midlands industry to drive cutting edge innovation and skills development.

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CANADA - Improving Global Health, One Breakthrough at a Time. Canada is home to North America's 2nd largest life sciences corridor and the world's 2nd highest number of biotechnology companies. Canada's proven research strengths include genomics, bioinformatics, immunotherapy, regenerative medicine and neuroscience. The Canadian Embassy invites you to meet with our delegation: Aspect Hemostemix. Mediphage Bioceuticals. Biosystems, Spiderwort, Biomedical Diagnostics, Kisoji Biotechnology, Rapid Novor, STEMCELL Technologies, Fusion Genomics, LMC Manna Research, SignalChem Biotech, Virica Biotech. Our Trade Commissioner team is also available to help you explore partnerships across Canada. Please visit our booth or connect through the partnering system.

Participating Companies

- Allarta Life Science Inc.
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JETRO New York Kanagawa Division

JETRO New York Kanagawa Division is a governmental organization that works to promote mutual trade and investment between Kanagawa Prefecture, Japan, and the United States. We support with market intelligence, subsidies, business matching, regulatory studies, and PR. JETRO currently maintains 74 offices overseas in 55 countries. Kanagawa Prefecture is one of the most dynamic life science and biotechnology hubs in Japan, home to diverse companies working on regenerative cell therapy, pharmaceuticals manufacturing, and reagent manufacturing for testing and research. Partnerships with Kanagawa-affiliated companies can serve as a gateway for Maryland businesses to the vast and growing opportunities in Asian markets.

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