The Life Sciences Voice

THE GEORGIA BIO INDUSTRY E-NEWSLETTER



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GaBio Innovation Summit Recap

This October, Georgia Bio brought professionals from industry, academia and government together virtually for the 20th annual Innovation Summit. We were fortunate to have an incredible array of presenters and exhibitors, an amazing group of sponsors, and a great team behind us at Georgia Bio who helped put together another seamless virtual event.

We look forward to the remainder of the year and are planning a full slate of virtual and in-person events and activities for 2022. Thank you again to our speakers, attendees, and sponsors for helping make our 20th Innovation Summit a rewarding event.

One of the many highlights of this year's Innovation Summit was the dynamic, one-on-one discussion between Rochelle Walensky, MD, MPH Director, Centers for Disease Control, and Dr. Gregory Fenves, President of Emory University.

In case you missed this amazing session, here is what they had to say:

MOVING SCIENCE FORWARD: A CONVERSATION WITH CDC and EMORY

As newcomers to Atlanta and their jobs, both leaders shared their perspectives on administrative issues, national and global issues, and public policy. Both Drs. also addressed difficult questions on the minds of many regarding their respective administrations, organizations, the impact of the Coronavirus pandemic, and their visions for the future of the CDC and Emory University.

Dr. Walensky shared that from a public health perspective and an infectious disease standpoint, the COVID pandemic has been a learning experience. While COVID has affected everyone, the more devastating consequences follow social determinants of health parameters.

In 2020, life expectancy plunged (in part due to COVID) by 1.2 years for Whites, 2.9 years for Blacks, and 3 years for Hispanics.

Vaccination, by far, is currently the best way to reverse COVID mortality. While research spanning several decades resulted in the creation of several effective COVID vaccines and saved thousands of lives, vaccine hesitancy is still a significant problem among many Americans. Vaccine hesitancy is best overcome by Grassroots organizations and trusted messengers engaging with local communities to disseminate fact-based information and dispel false information. The CDC has invested in mobilizing community health workforce members to improve health outcomes related to COVID, HIV-AIDS, diabetes, blood pressure control, nutrition, and other chronic conditions.

When asked what can be done to promote understanding and decrease the politics vs. science division plaguing the CDC, Dr.

Walensky said scientists must work harder at admitting when they don't know something. And, as new information is discovered, provide real-time information to battle rampant misinformation. Additionally, they must convey valid data in a manner that the public can understand.

Dr. Walensky pointed out that over the past 10 years, the US has had a Zika virus outbreak, H1N1 outbreak, Ebola scare, and now COVID outbreak. During the same period, approximately 60,000 public workforce jobs were lost. The CDC is currently taking measures to rebuild a robust public health force trained in science and public health.

- Through the Rollins Earn and Learn program, the CDC hires many Public Health students to gain real-world experience and mentoring by professionals in the CDC or state public health department.
- The CDC supports a large "Center for Chronic Disease"
- The CDC has taken on a holistic approach to combat structural racism in healthcare, including a declaration that "Racism" is a public health threat
- The CDC has hired a Chief Equity Officer to help ensure interventions are being provided equitably.
- CDC is investing in Community Health Workers as trusted messengers among vulnerable populations.

"WE'RE BATTLING THE COMMON FOE WHICH IS ABSOLUTELY NOT EACH OTHER BUT THE DISEASE AND THE VIRUS." In agreement with Dr. Walensky, **Dr. Gregory Fenves** reiterated that science is constantly evolving and that all knowledge has some uncertainty. But as academics and individuals, we make the best decisions we can based on the information we have.

Dr. Fenves was drawn to Emory and Atlanta because of the strength of this region as it relates to health and research. Emory has strong partnerships with the CDC, Georgia Tech, Georgia State University, Atlanta University Center, and the University of Georgia, which is essential to building an innovative economy, translating scientific breakthroughs into better public health policies, building public-private partnerships, and delivering more effective healthcare.

Dr. Fenves was also attracted by Atlanta's focus on building wealth and equality and opening opportunities to people who have not typically had access to wealth creation. He understands that colleges and universities play a critical role in contributing to socio-economic mobility. He also recognizes that

universities exist not only to educate but to carry out cutting edge research. He is committed to supporting the many revolutionary therapeutics that have emanated from Emory investigators, like the new oral therapeutic for Covid,

Molnupiravir.

Georgia Center for Oncology Research and Education Inc: Help fight cancer in Georgia with new license tags

With just a few days left of the 2021 Georgia General Assembly, HB 179 - the legislation to enable the redesign of the breast cancer license tag and establish the all-cancer license tag passed the Georgia Senate.

"We are confident the updated redesign will help to increase sales of the breast cancer license tag, from which a portion of the fees fund mammograms to underinsured or uninsured women, and we're extremely hopeful about the possibilities of additional support from the sale of the new 'all' cancer tag to decrease the state's other most deadly cancers such lung and colorectal cancers," said **Georgia CORE**President & CEO Lynn Durham.

Proceeds from sales of these plates support education, screenings, and access to treatment for Georgians in need. Plus, those that purchase the plates let others know - just by driving around - that they're "all-in" on fighting cancer.

Here's how it works:

- Visit your local tag office ANYTIME and ask for one of these plates by either its name or category code:
- The Breast Cancer plate is called "Breast Cancer" and has a category code of BCLT.
- The All Cancer plate is called "GA CORE," and its category code is C-1.
- In counties with online tag renewal, you can order the plate online when your annual tag renewal is due.
- The plate costs \$80 the first time you buy it and \$55 when you renew it.
- At the tag office, they may have the plate in stock; or they'll give you a temp. plate and mail your "fight cancer" license plate ASAP.



The Breast Cancer License Plate program started in 2002; see how the sales from the plates have made an impact here. Proceeds from the new plate that encompasses all types of cancer will be used to prevent those cancers in Georgia that have high incidence rates but also can be detected early through screening: colorectal, lung, prostate, breast and cervical cancers. Find your county tag office here.

Academic Spotlight: Georgia State Receives \$5 Million Grant to Establish a Center of Research Excellence in Science and Technology

A team of researchers at Georgia State University has been awarded a prestigious five-year, \$5 million grant from the National Science
Foundation's Centers of Research Excellence in Science and Technology (CREST) program, which supports the research capabilities of minority-serving institutions through the establishment of centers that effectively integrate education and research.

Using the grant, Georgia State will establish the Center for Dynamic Multiscale and Multimodal Brain Mapping Over the Lifespan (D-MAP), which will focus on brain development, structure and connectivity from childhood onward. Nationwide, D-MAP is one of only five new CREST centers funded in 2021.

"This significant investment from the National Science Foundation is recognition of our strength in brain research as well as our ability to train a diverse new generation of scientists," said <u>Vince Calhoun</u>, Distinguished University Professor of Psychology and Neuroscience, a <u>Georgia Research Alliance Eminent Scholar</u> and the project's principal investigator.

The multidisciplinary center will embark on three research projects to study links between the brain's development in different stages of life.

In the first project, researchers will develop new methods to improve understanding of the brain's structure and functional connectivity patterns and how they change over time during learning and across the lifespan. The researchers then plan to apply these methods to study how the brain changes and what areas of the brain are critically engaged in reading. They will also study how transcranial magnetic stimulation (TMS) — a noninvasive procedure that uses magnetic fields to stimulate the brain — can modulate the brain's reading network.

"We're very interested in using this type knowledge to one day help people, especially those with learning disabilities, learn to read better," said **Robin Morris**, Regents' Professor of Psychology and a co-principal investigator on the grant. "TMS has been used to successfully treat severe depression, but we're looking at whether it can also be effective at improving learning outcomes."

The second project is focused on developing novel techniques to fuse different kinds of imaging data, such as information about the brain's structure and its connectivity, and how various measures change over the lifespan.

The researchers will leverage deep learning to analyze this data and identify brain patterns related to cognition and mood.

In the third project, the team will analyze large existing neuroimaging datasets — which include participants ranging from kindergarteners to people in their 80s — to develop "predictive fingerprints" of the developing and aging brain. They will then use their findings to predict aspects of linguistic processing, such as working memory or processing speed, using imaging data.

The center will also provide hands-on research experiences for students, particularly those who are historically underrepresented in science, technology, engineering, and mathematics (STEM) disciplines.

"Welcoming historically underrepresented groups into the research endeavor is part of the mission of CREST, and it also aligns with the university's goal to provide high quality education for people of all backgrounds and to promote their progress into advanced degrees and careers," said Kyle Frantz, professor of neuroscience and director of the Center for the Advancement of Students and Alumni, who will lead the center's education initiatives.

The center will engage K-12 students through short courses and research internships and provide meaningful research opportunities for undergraduate students at Georgia State as well as Morehouse College and Spelman College. To encourage the participation of students from all backgrounds, the university plans to integrate research into credit-bearing courses that count towards their degrees. The grant will also fund 12 graduate research assistantships.

"CREST will expand our ability to recruit and train undergraduate students as fully-functioning members of research teams," said Calhoun, who also leads the **Center for Translational Research in Neuroimaging and Data Science**, which is supported by Georgia State, the Georgia Institute of Technology and Emory University. "They'll be gaining the skills they need to join the STEM workforce and helping contribute to the generation of new knowledge and discoveries."

D-MAP includes faculty spanning 10 departments and four schools and colleges at Georgia State. The leadership team also includes **Sergey Plis**, associate professor of computer science, **Jessica Turner**, professor of neuroscience and psychology, and **Vonetta Dotson**, associate professor of gerontology and psychology.

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Georgia Bio Advocacy Updates

2021 Patient Advocacy Summit

The COVID-19 pandemic has amplified the need to explore ways in which biopharmas, patient advocacy organizations, and legislators can better partner to advance new treatments and cures. Our 2nd annual Patient Summit brought together the patient advocacy community to showcase best practices and cutting-edge examples of how life sciences companies can more fully incorporate the patient voice into the work they do—not just approaching regulatory applications or at commercialization, but throughout the drug development cycle.

Our keynote, **Dr. Suresh Ramalingam, Executive Director of the Emory Winship Cancer Institute**, discussed how precision

medicine has revolutionized the standard of care of lung cancer resulting in better patient outcomes and lower life expectancy. In the 1990s, the life expectancy of males with Stage 4 lung cancer was measured in months, and there

were few therapeutic drugs.
Life expectancy for the same
category of patients is in years,
and there are 12+ FDA-approved
drugs for lung cancer. This
significant improvement was
the result of genetic
sequencing tumor tissues.
Researchers discovered that
patients with the same

diagnosis often had tumors with distinctly different properties. By understanding the unique features, scientists unfolded mysteries of tumor growth and devised targeted strategies to subjugate it. Knowledge of cancer biomarkers is now used in clinical care treatment plans.

Launch of the Patient Advocacy Alliance

Officially launched in April of 2021, the Georgia Bio Patient Advocacy Alliance is the only group of its kind in Georgia. The life sciences industry in Georgia is committed to working with and for the patient community to provide innovative treatments and therapies while seeking the input of the patients themselves. This new alliance brings industry and the patient community together, offering quarterly roundtable discussions, a featured Patient Summit each Fall, and a new webpage to highlight our amazing patient groups and provide helpful resources for them, their allies, physicians, and those seeking to learn more.

Not a Georgia Bio member? No problem! Complimentary membership is offered to nonprofit patient groups who join the alliance. Contact Kristina Forbes at <u>kforbes@gabio.org</u> for more information.

Georgia Made Medical Manufacturing Tax Credit

On Tuesday, May 4th, Governor Kemp signed Senate Bill 6 into law. SB 6 contains language for the Georgia Made Medical Manufacturing Act, which allows for an additional \$1250 tax credit for all new jobs engaged with pharmaceutical and medical supply/device manufacturing.

Language for the GMMMA was previously included on several pieces of legislation but received final passage on the last day of session on a Conference Committee Report to SB 6.

The Georgia Made Medical Manufacturing Act is now being considered for formal rule adoption by the Georgia Department of Revenue to add it to Georgia's tax code. Because, the effective date is retroactive, any new employees hired on or after July 1, 2021 and engaged in pharmaceutical or medical supply and device manufacturing would still qualify.

This legislation signals the value that Gov. Kemp and the General Assembly place on the important work of the life sciences industry. We thank them for their support and look forward to working with them to expand our industry and its economic impact here in Georgia.

Governor Kemp Declares October 11 – 15 Life Sciences Week in Georgia

We are thrilled to announce that Governor Brian Kemp recently signed a proclamation declaring October 11 – 15, 2021 as Life Sciences Week in Georgia!



Member Spotlights: Femasys Inc. and UCB

Revitalizing Reproductive Health with Femasys

The women's reproductive health landscape has suffered too long from a lack of innovation. On average, U.S. women want to have two children. To accomplish that goal, a woman will spend close to three years pregnant, postpartum or attempting to become pregnant, and about three decades—more than three-quarters of her reproductive life—trying to avoid pregnancy.

It is due time that we reimagine the system to account for women on both ends of the spectrum so that they are supported clinically while they strive to become pregnant, as well as when they permanently make the decision to avoid pregnancy.

To understand the urgency of innovation in this space, it is important to first understand the history of how it has evolved. The first documented application of artificial insemination (AI) in a human was in London in the 1770s by John Hunter, in which semen (which escaped during coitus) wad collected in a warmed syringe and injected into the vagina. In the early-1900s, AI began to increase in popularity and documented cases rose. By the 50s, an estimated number of children conceived via AI was 50,000. As the years continued, the innovations remained few and far between, with the first successful in vitro fertilization (IVF) in 1977.

For permanent birth control, the first ligation of a woman's tubes was in 1880 by Dr. Samuel Lungren.

Why should women have to wait another few decades for the next major medical advancement to catch up with their needs?

Over 9 million females in the United States are currently candidates for infertility treatment, but up until this point, options remain limited. There is a substantial unmet need for the next generation intrauterine procedure.

Reinterpreting the women's reproductive health landscape goes beyond IUI. It extends to the 13 million women who are candidates for an inoffice solution for permanent birth control.

Surgical tubal ligation is the sole on-market solution for permanent birth control, and it requires an operation that involves making incisions in your abdomen as well as anesthesia. The non-permanent alternatives, to name a few, require daily pills, shots, prophylactics or vaginal rings that with their temporary nature, can't achieve the same peace of mind that a permanent solution can.

Women should have options beyond temporary solutions or an invasive surgical procedure that can expose them to harm when they want to end their risk of pregnancy.

That is why at Femasys, a biomedical company developing a suite of product candidates in reproductive health, we are so motivated to strive to commercialize non-surgical, minimally invasive, in-office solutions. We passionately believe that women worldwide are entitled to additional reproductive healthcare options with superior technologies.



Embracing ESG with UCB

UCB is embracing its role in ensuring a sustainable future. More than five years ago, the company laid out its 2030 Green Goals to minimize its environmental footprint across business activities and operations. In 2020, UCB saw a 19% reduction in energy consumption, a 30% reduction in water withdrawal, and a 38% reduction in its waste production. Its carbon dioxide emissions due to its car fleet were reduced by 29%, while business air travel was reduced by 87%. The company is also leveraging its expertise to integrate sustainability into its business approach and improve societal health with a focus on scientific innovation, access to medicines, employees' health, safety, and wellbeing, and health of the planet.

"UCB knows the challenges facing the world, from climate change to rising inequalities, are inextricably linked and that businesses have a key role to play to ensure a sustainable future for all," says Allyson Funk, head of U.S. communications and public affairs. "UCB's commitment to driving business, social and environmental impact spans the entire company and is interwoven into the day-to-day business activities."

New Member Spotlights

Sunovion

At **Sunovion**, we are advancing therapies to tackle some of the most challenging psychiatric and neurological disorders that impact the lives of millions of people worldwide. As a patient-centered company, we focus on improving the quality of life for those living with serious CNS conditions. Within a decade, we have introduced several new treatment options and will continue expanding our portfolio to enable better outcomes for those we serve. Innovation today, healthier tomorrows.

Learn more about Sunovion HERE.

Alexion Pharmaceuticals

Learning you have a rare disease can be one of the most difficult diagnoses to receive. When you do get the right diagnosis, few, if any, therapies are available, and often research or regulatory pathways are unclear. We believe it is our responsibility to listen to, understand, and change the lives of patients and those who work tirelessly to help them.

We continue to deepen our understanding of rare disease, which began with our pioneering work in complement biology. This knowledge allows us to innovate and evolve into new areas, where there is great unmet need and opportunity to help patients and families fully live their best lives.

We've delivered transformative medicines for people with paroxysmal nocturnal hemoglobinuria (PNH), atypical hemolytic uremic syndrome (aHUS), anti-aquaporin-4 (AQP4) antibody-positive neuromyelitis optica spectrum disorder (NMOSD), generalized Myasthenia Gravis (gMG), hypophosphatasia (HPP), and lysosomal acid lipase deficiency (LAL-D).

Learn more about Alexion **HERE**.

Grant Thornton: Life Sciences

Leaders of life sciences organizations always focus on delivering positive results for their constituents. But with challenges evolving faster than solutions, leaders grapple with significant change in every aspect of their business. They seek assistance with new ideas and approaches to guide their organization through disruption to a healthy future. If your organization is within the broader life sciences spectrum — biopharmaceutical, pharmaceutical and medical device manufacturers — let us help you understand and prepare for what lies ahead.

Learn more about Grant Thornton HERE.

Become a Member this December

Georgia Bio hosts a wide variety of signature events, strategic initiatives, and partner programs that foster partnerships, recognize leadership, highlight research breakthroughs and market trends, and feature distinguished industry thought leaders. We are offering new members a 20% discount on standard membership rates until the end of December. Contact **Kristina Forbes** to take advantage of this offer. View our membership rates **HERE**.

Key Benefits of Membership Include:

- Policy & Advocacy: staff works on your behalf to promote initiatives important to you and educate Georgia policymakers about our industry.
- Networking: all employees can attend 30+ events at discounted rates, including small dinners, career fairs, the Patient Advocacy Summit, the Golden Helix Awards and the Innovation Summit.
- Professional Development: opportunities to engage, speak, and hold leadership positions within the committees/councils and at events.
- **Savings:** Georgia Bio offers costs savings programs, including Brex, VWR, Office Depot and more, that connect you to the partners critical to grow and support your business.
- Increase Your Visibility: get noticed as an event sponsor or promote your company across Georgia Bio's various platforms and job board.

Already a member? Current members can also enjoy some winter savings by referring new members. Organizations whose referrals result in new memberships will receive a 20% discount on a sponsorship. Contact Kristina Forbes for details.

Your Georgia Bio Membership Goes Global with the Center for Global Health Innovation (CGHI)

Now that Georgia Bio is a division of CGHI, your membership goes further than ever! In addition to your standard Georgia Bio benefits, CGHI members get access to a brand new career center and talent community, BioInnovation Lab and global exposure for your organization.



"GEORGIA BIO HAS PLAYED A HIGHLY IMPORTANT PART IN MY NETWORKING AND MENTEE EXPERIENCE." - LATIKA

Georgia BioEd ELN Mentor Program: Latika's Story

"I am a senior PhD student in Biomedical sciences at GSU and I aspire to pursue my career outside academia. I learned about technology transfer as an alternative career in events organized by Georgia Bio. Later through this program I got to meet mentors who had similar background as me and are now working outside academia. My mentors guided me to the right people and available opportunities.

I got into the Emory office of technology transfer internship program this year (2021). It was highly competitive, and I will owe a big part of my success to my mentor, who helped me at every step of the various rounds. From writing a flawless letter of interest to writing sample to interview preparation. I was always helped and guided. I plan to move forward in tech transfer and IP. And I have already made many allies, all because of this wonderful mentorship program. I got to know many people who are in my field of interest through virtual meetings, which is necessary but made successful because of the efforts of Kristin and Megan.

Georgia Bio has played a highly important part in my networking and mentee experience. I am lucky to be part of the Georgia Bio family and this program and I recommend all graduate students who want to know more about career paths outside academia or want to polish their networking skills or want to make a marvelous CV or online presence to join this program."

The ELN Mentor Program involves a program for mentees to focus on professional development skills training, followed by a mentor and mentee pairing program, in which mentees will be able to meet with up to 2 mentors. Mentors will provide invaluable input to the mentees' career path in life sciences and empower young professionals in Georgia. Do you have questions about the program? Click https://example.com/here-education@gabio.org



Purchasing Programs:

Enhanced Member Benefits. Saving Money and Time, Helping You Help **Patients**

Through Georgia Bio's Purchasing Program, our members have access to programs and services negotiated by Georgia Bio and BIO, offered at favorable rates and terms to save your company money. Through our affiliation with BIO, Georgia Bio is part of the largest cost-savings program for the life science industry with the purchasing power of over 2,800 biotech companies. Our group discounts are for members only and your membership is the gateway to this purchasing power to save your company critical resources.

For more information on how you can sign up for these member discounts and save your working capital, contact Kristina Forbes at kforbes@gabio.org.



Savings Spotlight: Brex

Member Benefits

- 60,000 point signup bonus
- Tailored rewards and points with 3x on lab supplies, 7x on conference registrations, and 4x on travel
- 5-minute application process (completely online) with instant access to virtual cards
- No personal guarantee or collateral requirements





Welcome to our New **Members**

- Alexion <u>Pharmaceuticals</u>
- <u>Biocytogen</u>
- <u>BioMarin</u> Pharmaceutical
- Blink Science
- Chestatee Pathology
 SIRPant Associates
- CRISPR Therapeutics Sunovion
- Eppendorf
- Georgia CORE
- Gilbane Shipping <u>Company</u>
- Gilead
- **Grant Thornton**
- Healthcare Strategy **Bullpen**

- Horizon Therapeutics
- KASA BIO
- New Vision **Pharmaceuticals**
- Resilia **Pharmaceuticals**
- <u>Immunotherapeutics</u>
- <u>Uchimura Robotics</u>
- <u>Ultragenyx</u>
- Waterdiam Group
- ZANDA Technologies

COMING 2022



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DONATE LAB SUPPLIES TO ENHANCE STEM EDUCATION IN GEORGIA'S CLASSROOMS

Donate gently used, last generation, or surplus equipment, supplies, and consumables to the BioEd Institute's Equipment Depot. Lack of equipment is one of the top reasons that teachers do not perform more labs with students.

building the future life sciences workforce

GLOBAL HEALTH. HEALTH TECHNOLOGY. LIFE SCIENCES