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LIFE SCIENCES**



CLS BULLETIN

Health Equity Spotlight

This issue of the CLS Bulletin explores health equity—a topic that will be explored in great depth at the BIO International Convention. Read how CLS member organizations are improving health equity and see previews from BIO 2022 panelists.

CONTRIBUTING ORGANIZATIONS

Amgen.....	1
Nano PharmaSolutions	3
Springer Nature	5
California Life Sciences	7
X-Therma	9
BIO Ventures for Global Health	11
Zai Lab	14
KPMG.....	16
The Porex Life Sciences Institute	18
IFPA.....	20
Telebionix.....	22
CLS Racial and Social Equity Initiative	24
BioscienceLA	26
Beigene Forum Preview	28
Jazz Pharmaceuticals	29
Johnson & Johnson	31
Health Career Connection	33
Life Sciences Cares	35



Key Considerations for Improving Diversity in Clinical Trials for Long-Term Health Equity

Submitted by Amgen



- **Clinical trials are a critical part of the long and careful process of developing new medicines. Unfortunately, clinical trials have lacked diversity for decades. The underrepresentation of racial and ethnic minority patients in clinical trials contributes to the collection of incomplete or limited trial data, limited access to potential new innovative treatments for vulnerable populations and disparities in health outcomes. Clinical research is**

complex and multidisciplinary, and there isn't a single accelerator that can be used to address the systemic issues that deter people from participating. Instead, the industry needs a range of different levers to update decades-old processes and create new best practices.

Amgen has taken [data-driven efforts](#) to help lead the way in breaking down barriers and conducting clinical trials that are more representative of all patients who suffer from serious illnesses. Here are a few considerations, and learnings, for industry leaders to consider as they work to improve diversity in clinical trials:



Establishing a dedicated team

While the push for greater representation in clinical trials is not new to Amgen, the company accelerated efforts in 2020 with the formation of RISE (Representation in Clinical Research). RISE is an Amgen team dedicated to addressing the systemic issues that may deter people from participating in research, especially those who have been historically excluded due to race, ethnicity, sex, age and other factors.

Ongoing learning to gain understanding and insights

Communication and information sharing is fundamental to driving change. For the past nine years, Amgen has held an annual Health Equity Summit that has shined a light on disparities and barriers that patients face, and on the partners and advocates that champion health equity. In 2022, Amgen transitioned to a bi-annual format for the Summit to not only take a deeper dive into the root causes of the issues, but to promote actionable steps that can be taken to close health equity gaps and measure progress. At a recently held Summit in April 2022, Amgen unveiled its new [Health Equity Framework and Ambition Statements](#), which will serve as Amgen's north star to strive toward action to promote health equity.

Building foundational capabilities

Logistic and financial barriers, gaps in awareness and lack of trust all impact participation in clinical trials. Amgen partners with organizations and diverse suppliers to thoughtfully build the company's enrollment support capabilities, including providing transportation and other potential

support capabilities as appropriate, as well as finding optimal ways to support staff at clinical trial sites.

Pursuing partnerships and collaborations

Collaborative partnerships play a significant role in advancing understanding of the science and the ability to positively engage patient communities in clinical trials. Health inequities are part of the broader community. Partnerships are vital to bringing a voice to these issues and resources to advance bold initiatives and policy changes that address unfair and avoidable differences in health.

Measuring progress in clinical trials

Amgen has also undertaken important steps, including a baseline study, that will help measure progress for

trials currently underway as well as for new trials on the horizon.

Additionally, the company has several tools in development to help measure and evaluate best practices for improvement in enrollment of participants from diverse racial and ethnic backgrounds. Amgen intends to scale successful practices across the enterprise and share externally to contribute and advance data driven best practices across the industry.

Promoting better representation of diverse populations in clinical trials will get new medicines faster to patients who need them. It will also help doctors assure their patients that the medication they are being prescribed was

studied in people like them, with results that indicate they are likely to benefit. As an industry, we are not there yet, but taking informed steps, like those above, has the potential to move the needle. ■

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Addressing Health Disparity through Nanotechnology

Submitted by Kay Olmstead, Ph.D., MBA, Chief Executive Officer, Nano PharmaSolutions, Inc.



■ Health disparities are preventable circumstances relating to individuals' health status based on social factors such as income, ethnicity, education, age, and gender. The COVID-19 pandemic has brought social and racial inequity to the forefront of public health, as the data show many racial and ethnic minority groups are more at risk of getting sick and dying from COVID-19. For example, Black Americans make up 13% of the US population, but make up 23% of COVID-19 deaths. Indigenous, Latino, Pacific Islander and Black Americans all have significantly higher COVID-19 mortality rates than white Americans once the data are adjusted to account for age distribution differences among racial and ethnic groups.¹ The reasons for the COVID death disparity are multi-faceted and complex, but one stark data point

is the inequity in access to hospital care for racial minorities. Lifesaving therapies of COVID-19 were delivered through IV infusion (Remdesivir and certain anti-SARS-CoV-2 monoclonal antibodies) until December 2021, when FDA authorized the emergency use of two oral COVID therapies from Pfizer (PAXLOVID™) and Merck (molnupiravir). For the first two years of the pandemic, effective treatment of COVID-19 was linked to hospital access. The inequities in hospital access translate to inequities in COVID treatment and survival.

In 2019, only about 6% of white Americans were uninsured, according to the CDC. However, the rate was nearly 19% for Hispanics and 10% for Black Americans.² Of the 30-million uninsured Americans, about half are people of color, according to Brookings.³ Policy makers and federal/local administration can advance health equity by working to improve access to racial minorities and reduce uninsured rates. Another factor highlighted by the COVID pandemic is the need for portable therapeutics distributed to non-hospitalized patients

¹ <https://www.apmresearchlab.org/covid/deaths-by-race>

² National Health Statistics Reports Number 169 n February 11, 2022 U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention National Center for Health Statistics Demographic Variation in Health Insurance Coverage: United States, 2020 by Cha AE, and Cohen RA

³ <https://www.brookings.edu/blog/usc-brookings-schaeffer-on-health-policy/2020/02/19/there-are-clear-race-based-inequalities-in-health-insurance-and-health-outcomes/#:~:text=Since%20the%20ACA's%20core%20coverage,million%20are%20people%20of%20color.>



during early onset of disease. This can close the gap of health disparity and reduce the most tragic outcome – death. Portable forms of therapeutics, like COVID oral pills, could have a significant impact on health disparity as these medications can be distributed to the uninsured and under-resourced population through community-based clinics or even through commercial pharmacies under government programs (e.g., “test-to-treat”).

However, the challenge for pharmaceutical companies is that most active drug molecules are not soluble, which poses a great roadblock on developing oral dosage forms of these insoluble drugs against cancers, infectious diseases, and other life-threatening illnesses. Nano PharmaSolutions (NPS) was formed in 2019 to address the technical aspect of this challenge, to bring more small molecule drugs in portable forms instead of injectable forms. By nanosizing the drug molecules using the physical phase transfer method instead of chemical methods, the NanoTransformer™ technology can improve the solubility of drug molecules without adding any nanosizing chemicals, which can cause nanotoxicity. As a case study, NPS is developing a portable form of remdesivir, the only FDA-approved COVID therapeutic in IV infusion form, as a dry powder inhaler to deliver it directly to the lungs.⁴

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Too many poorly soluble drugs are being developed as IV infusion – a dosage form utilized by highly skilled hospital caregivers for drug administration, driving up healthcare costs and spreading the health disparity gap for racial minorities and low income/uninsured patients. Effective drug formulations are foundational to producing the most impactful treatments for effective patient care. According to historical data, it often takes more than 10 to 12 years for a researched drug to

reach the marketplace (with a 0.0002% approval rating), and the average cost for each successful drug is estimated at \$2.6 billion⁵. This scenario dramatically affects patients who are hoping to receive more effective treatments. According to the NIH, roughly 30 million US patients suffer from rare diseases and conditions. These challenges demonstrate that the US pharmaceutical development process needs to improve to ensure continuing and timely advances in healthcare under any scenario. Advances in nanoformulation

approaches have the potential to produce novel drug designs outside of traditional strategies and accelerate the development of therapeutics for complex chronic diseases. With NPS' solubility enhancing physical nanoformulation, more drugs can be delivered by non-IV formulation and contribute to convenience and quality of life in patients (time away from home, traveling to infusion centers, caregiver costs, etc.), and help achieve health equity in America. ■

⁴ PCT/US2021/059799, Dry Powder Antiviral Composition and Their Use for Treating Viral Infections, Nano PharmaSolutions.

⁵ How to improve R & D productivity: The pharmaceutical industry's grand challenge. Nature Reviews Drug Discovery. 9(3), 203-214., 2010. Paul SM, Mytelka DS, Dunwiddie CT, Persinger CC, Munos BH, Lindborg SR, and Schacht AL.



Opening the Doors to Discovery for All

Submitted by Springer Nature

- **At Springer Nature, we believe research and learning are the cornerstones of progress. As publishers of trusted research, education, professional and healthcare content, we play a vital role in identifying and accelerating solutions to urgent challenges around the world including the issue of health equity.**

We often look to the Sustainable Development Goals (SDGs) as a to-do list of the most pressing challenges, and consequently in 2016 developed our [SDG Publishing Programme](#).

"The themes of the UN Sustainable Development Goals are inspirational to us," said Sir Philip Campbell, Springer Nature editor in chief. "Across our publishing and services and across the disciplines, we're focusing on helping researchers make the world a better place for future generations."

Since the launch of the goals in 2015, Springer Nature has published almost 390,000 articles or book chapters relevant to the SDGs, which have collectively been cited more than 3.5 million times.

Health disparities are not a new phenomenon. There has always been a divide between the wealthy and those less well-resourced in terms of their access to health care, living conditions and community environments, food availability, and even education regarding improving their health. While people living in low- and middle-income economies continue to suffer from lack of universal health coverage and investment in their health services and systems—not to mention lack of funding for research into diseases that do not affect



wealthier nations—health inequalities are being further exposed among different sociodemographic groups within high-income economies. Without health equity, the disproportionate distribution of wealth and all-round wellbeing cannot be addressed, nor can sustainable development as a whole be achieved.

Good health and wellbeing (or SDG 3) are essential to sustainable development. We hope to facilitate collaborative, interdisciplinary, evidence-based approaches to public and healthcare policy as well as practice to address health inequalities. Through our SDG Publishing Programme, our aim is to connect the researchers and research associated with each of the goals, with the policy and business practitioners who desperately need those insights to advance the international wellbeing agenda.



For example, we've created SDG hubs for each of the goals: 17 resource repositories of multidisciplinary peer-reviewed research content pertaining to the subject of the goal from across Springer Nature's output of journals and books alongside supplementary insights, journalism and multimedia in a variety of languages.

We cannot hope to achieve health equity without first considering broader inequalities around the world. SDG 10, Reduced Inequalities, remains a goal out of easy reach. The COVID-19 pandemic has exacerbated global inequalities, disproportionately impacting less-developed countries and communities of color, deepening gender inequalities, and increasing global unemployment. As a recent [white paper](#) identified, such inequalities are likely to become further entrenched as the climate crisis worsens.

As we publish peer-reviewed, cutting-edge research that approaches these issues from academic and policy points of view, we also commit to championing diversity, equity and inclusion in the communities we serve, using our networks and brands. We work to eliminate barriers to creating, discovering and using knowledge, and supporting equitable outcomes in learning and advancing

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scholarship – from young learners to PhD-level and beyond. Internally, we want everyone at Springer Nature to thrive, creating a diverse and inclusive culture and supporting equitable opportunities for merit-based success. Some of actions to date include joining with partners such as the Valuable500, learning more about how we can support colleagues through our global

inclusion and diversity survey, working closely with our employee networks and setting gender representation targets for women in leadership. Externally, we participate in projects to help achieve a more equal research landscape, such as our founding membership in Research4Life; a collective programme that provides developing countries with free or low-cost access to academic and professional peer-reviewed content online. We also want to make sure our content is as accessible and inclusive as possible, and everyone feels welcome to publish with us. So we've

introduced a new [inclusive author name change policy](#) that means that trans authors no longer face a lengthy and public process, often with associated personal and professional risk, when seeking to correct their publication record. ■



Female Founders Find Community, Advisors with WIB-FAST Program

Submitted by California Life Sciences

■ Being an entrepreneur can be lonely at times.

That's what Eydis Lima had been feeling—juggling a full-time job with a health system while trying to get her startup, Curiva, off the ground.

But then she got a call from Sibylle Hauser, executive director of Innovation Services at California Life Sciences (CLS).

"I remember feeling a big sigh," Lima said. "She told me to hang in there—there's light at the end of the tunnel."

Because of that call, Lima became connected with other women in the life sciences industry—women who were having similar experiences. And now, Lima and her team are one of the first companies to participate in the new [WIB-FAST advisory program](#)—a partnership between CLS and Women In Bio, designed to coach female-founded, early-stage life sciences companies.

"I realized I genuinely wasn't alone," she said.

At Curiva, they're developing wearable diagnostic patches that can detect gynecologic malignancies like cervical cancer. This could lead to earlier diagnosis, treatment, and planning methods for cancer patients.

"Hopefully in the years to come, we can put in the hands of patients a product that is much needed. The pap smear has been around for more than 70 years, and I think most women would agree it's antiquated," Lima said.



Eydis Lima, founder of Curiva (left), Tracie McGinnity, Ph.D. chief scientific officer (right)

Every week, the Curiva team meets with experienced advisors, custom-selected for their needs. Together, they work to strengthen their pitch deck, perfect their commercialization strategy and business plan.

"We're pulling in from experts that are really good at what they do in their own field and have decades of experience, so they know what works and what doesn't work," she said.

And Curiva isn't the only female-founded company benefitting from this mentorship. There are five companies in this first cohort—including SiVEC



Lyndsey Linke, Ph.D., M.E.

Biotechnologies, a company that developed a novel drug delivery platform to enable the next generation of nucleic acid and gene therapies.

"So far the advisors that we've been linked up with have been phenomenal—of diverse backgrounds," said Lyndsey Linke, SiVEC co-founder and CEO. "We've been discussing who we are as a company. Where

do we focus our resources? How do we attract the right investors? What are the right collaborations and partnerships we should be looking at?"

As a female founder, Linke said she's excited to be part of a more diverse industry and help others do the same.

"I have had on several occasions men say to me: if you're going into a meeting with investors, always have a man there with you," she laughed. "That motivates me. I'm going to prove even further that that is not necessary. I'm very comfortable in who I am and what my capabilities are. I don't second guess that."

Her advice for other women in life sciences?

"Don't be afraid to talk to other women. Build a network around you that supports you and celebrates who you are," she said. "The risk is worth it."

Linke, and the other WIB-FAST participants will soon be presenting at Startup Stadium on June 14 at the Bio International Convention in San Diego. ■

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CLS Reception

@ BIO INTERNATIONAL CONVENTION

JUNE 14TH, 6-8PM | PUESTO AT THE HEADQUARTERS

PROUDLY SUPPORTED BY CLSADVANTAGE PARTNERS



Improving Health Equity Through Worldwide Organ Sharing

Submitted by X-Therma



- **The organ transplantation field has experienced numerous barriers which have contributed to the creation of organ accessibility issues worldwide. To help tackle these challenges, X-Therma has made it its mission to make worldwide organ sharing possible for everyone, eliminate organ waiting lists across the globe and improve lives.**

Led by CEO and co-founder, and award-winning entrepreneur and chemist, Xiaoxi Wei, Ph.D., and Mark Kline, PhD, co-founder and CTO, X-Therma has made strides to fulfill its mission, which it attributes, in part, to the diverse team of bright minds and industry experts it has built. Through its talented team and hard work, X-Therma has created novel technology that will make access to organs more accessible.

Building and Fostering a Diverse Global Team

X-Therma has built a team spread out across the U.S. and Europe, hired for the expertise and attributes that they bring to the table. To ensure X-Therma is looking for talent in all places, the company will consider hiring



talent regardless of location. X-Therma also seeks potential candidates that fit in with its unique culture, which it has built around core fundamental values: dreaming, excellency, perseverance, integrity, respect, and support. When recruiting candidates that will fit in with this culture, X-Therma believes that transparency is key to making this a successful endeavor. This means both sides should provide a level of transparency that creates an open and honest environment throughout every stage of the interview process.

When screening candidates, X-Therma leadership is very practical and upfront when identifying a potential employee—evaluating that person's skillsets and experience to ensure they match the qualifications of the position. Any emphasis or consideration of personal characteristics outside of their professional skillsets is avoided—such as name or where they attended school. Based on the screening questions, if the candidate appears to be a potential match, the company will move forward in the interview process. Once a candidate has made it to the final round of interviews, X-Therma executes a blind survey for employees to provide honest feedback on the person, which helps eliminate peer pressure and biased opinions.

Since the onset of the pandemic, X-Therma's team has nearly doubled in size. Through transparency, focusing on what each individual can bring to the table, and creating an environment that fosters growth, this has innately created a diverse group of individuals, collectively focused and working toward one sole mission—how to tackle organ shortage barriers and help evolve the industry to improve lives.

How X-Therma is Transforming Global Accessibility to Organ Transplantation

X-Therma is building organ preservation and transport technology that was [recently](#) designated as a Breakthrough Device by the FDA. With this technology, X-Therma aims to break down barriers in obtaining life-saving organs and medicine and therefore create health liberation for all patients in need.

This technology will transform global accessibility to organ transplantation by extending the life of a transplantable organ from just a few hours to now multiple days. This means that organs can be transported globally and improve patient access no matter where the patient lives, expand the donor and recipient pool, improve workflow in organ transplantation, and possibly even allow precision organ matching so that every recipient can have one organ for life, no matter race, sex, or creed, for example. With increased availability, more patients can receive their life-saving organs and tissues.

X-Therma is also eliminating cost barriers. With its technology, overall medical costs for organ transplants can be reduced. For example, postoperative treatment will be less costly because of higher organ quality at the time of transplant and better organ matching, leading to fewer drugs required for organ and tissue rejection. This reduction in medical costs will help lead to fewer inequities, opening doors to more people from different financial statuses or backgrounds.

X-Therma is continuing to grow its company alongside individuals who see its exciting potential and recognize the potential impact it has to make on people's lives through elimination of access barriers and providing everyone with a fighting chance to live a longer, healthier life. ■



Uniting the Private and Public Sectors to Improve Global Health Equity

Submitted by Jennifer Dent, BVGH President and Chief Executive Officer



Training Rwandan pathology residents on the country's first cryostats.

[BIO Ventures for Global Health \(BVGH\)](#) builds bridges across sectors and geographies to improve health equity for the world's most vulnerable populations, in alignment with the priorities of those populations. BVGH programs are improving equity by:

- Catalyzing infectious disease research and development (R&D) and empowering endemic country scientists to lead such R&D through capacity building.
- Fostering clinical trial diversity, equity, and inclusion (DEI) and closing clinical research data gaps.

- Expanding access to cancer medicines and technologies.

Catalyzing Infectious Disease R&D and Capacity Building

Many infectious diseases disproportionately affect low- and middle-income countries (LMICs), including [neglected tropical diseases \(NTDs\)](#), [malaria](#), and [tuberculosis](#). Products to prevent, detect, and treat such diseases are insufficient. Scientists in endemic



regions are underrepresented yet best suited to inform infectious disease R&D programs.

BVGH launched and co-led the WIPO Re:Search Consortium, and, before that, the Pool for Open Innovation against NTDs (POINT) initiative, to facilitate access to industry's valuable intellectual property assets to drive infectious disease R&D. As the Consortium's [partnership development and alliance management lead](#), BVGH grew membership to 160 organizations across 46 countries—including 70 LMIC entities. More than 180 [R&D collaborations](#)—primarily industry-academic partnerships—have been forged by BVGH; more than 65 of these projects are led/co-led by LMIC scientists. The Consortium's Fellowship Program (supported by the Government of Australia through World Intellectual Property Organization [WIPO] Funds-in-Trust) has provided more than 100 months of hands-on and virtual R&D training and mentorship to 26 researchers (46% women) from 12 LMICs.

With BVGH's alliance management support, researchers have achieved critical early-stage development

milestones for new infectious disease products, received millions of US dollars in R&D funding, and published their research in high-impact journals. Additionally, LMIC-based Fellows have leveraged their training to establish new global R&D collaborations, secure career promotions, and [win high-profile awards](#).

Fostering Clinical Trial DEI and Closing Clinical Research Data Gaps

[Cancer mortality in Africa](#) is predicted to [double by 2040](#). People of African descent are [significantly underrepresented in oncology clinical trials](#)—which impedes access to innovative treatments, slows progress in understanding and addressing cancer disparities, and increases the risk that products approved based on data from people of other ethnicities may be suboptimal for African patients.

BVGH's [African Access Initiative \(AAI\)](#) and [African Consortium for Cancer Clinical Trials \(AC³T\)](#) are fostering the conduct of clinical research by African investigators—focused on answering critical questions about cancer patient treatment and outcomes in Africa—through [virtual trainings](#) and [mini-grants](#). BVGH has paired each grantee (six women and two men) with an experienced mentor and thought partner from a top international cancer institution. In addition, Rwandan oncologists are gaining insights and advancing their clinical research plans through a BVGH-managed knowledge exchange program that taps into Takeda employee clinical trial experts. AC³T is also de-risking site selection for companies interested in conducting clinical trials in Africa by collecting and sharing (with consent) information on site capabilities through the [AC³T online platform](#). While the platform was developed with a focus on oncology, clinical trial capabilities are transferrable across therapeutic areas.

Expanding Access to Cancer Medicines and Technologies

Through AAI, BVGH has:

1. Managed procurement and delivery of affordable cancer drugs from Port to Patient in Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, and Nigeria. Access agreements are expanding to include additional drugs, countries, and hospitals.



[Francophone breast cancer pathology workshop](#)
in Côte d'Ivoire.



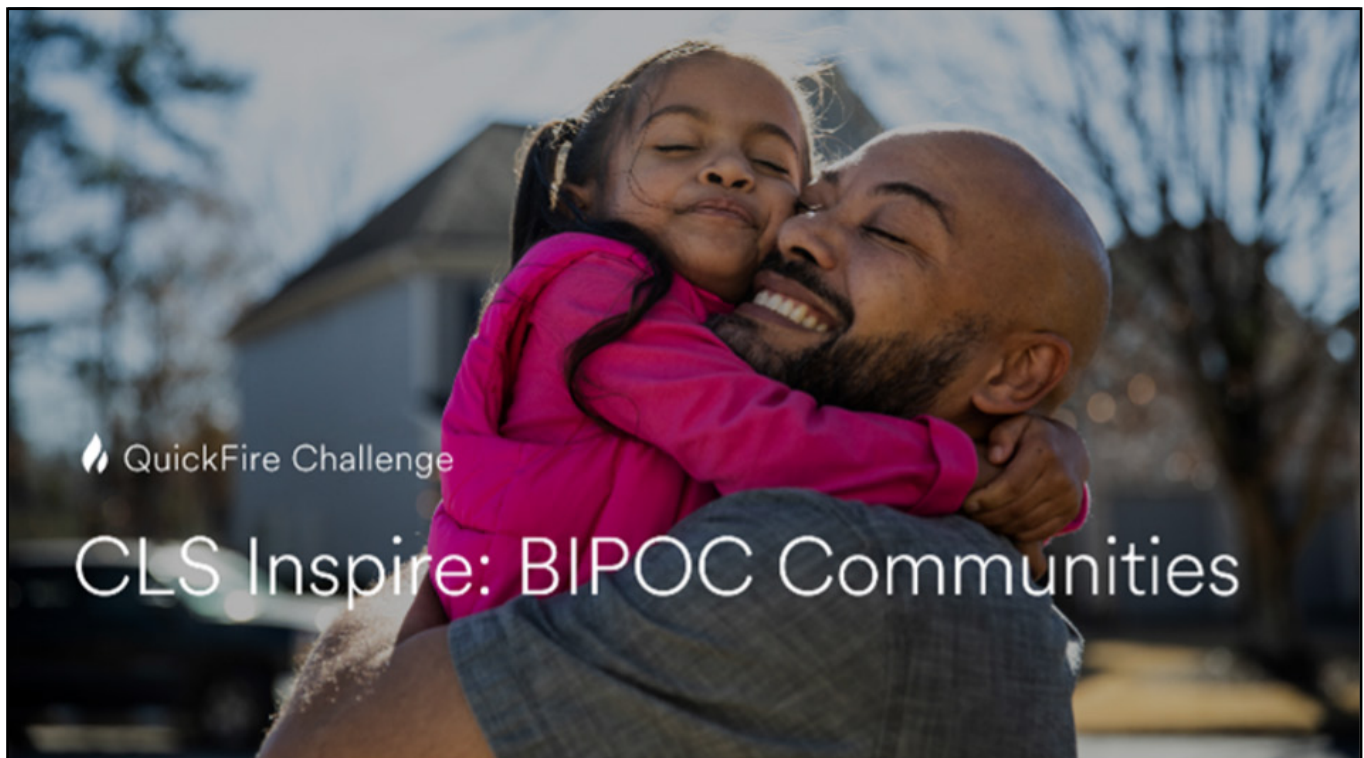
2. [Delivered cervical cancer education, screening, and treatment services and technologies](#)—for the first time—to more than 6,000 Rwandan women in Bugesera District, in partnership with the Rwanda Biomedical Center.
3. Equipped healthcare practitioners with the skills to provide high-quality care across the cancer patient pathway. BVGH has organized and implemented more than 50 virtual and hands-on trainings—led by international oncology experts in English and French, and serving more than 2,000 professionals from 50 African countries on topics ranging from

[diagnostic pathology to management of women's cancers](#). BVGH has coordinated placement of global cancer experts at AAI hospitals to conduct training, and [African clinician-researchers at a US company](#) for knowledge sharing and mentoring. Additionally, BVGH has organized placement of diagnostic equipment and consumables at AAI hospitals.

BVGH will continue to build on its successes in improving global health equity, driven by the commitment to addressing LMIC needs through equal participation of LMIC stakeholders. ■

BVGH's Jennifer Dent will be a speaker at the BIO International Convention, on a panel called "Achieving Global Health Equity with BioPharma and Medtech."

[Register here.](#)



In partnership with Johnson & Johnson Innovation and AbbVie, [this challenge](#) invites California-based innovators to submit potential solutions for BIPOC communities who have been historically marginalized. The innovator(s) with the best potential solution will receive grant funding from a total pool of \$150,000. [APPLY](#) by August 5.



At Zai Lab, Equity Starts from Within

Submitted by Dr. Samantha Du, Founder, Chair & CEO, Zai Lab



■ **I have been a scientist for more than 30 years, founded two biopharma companies and helped accelerate life-saving medicines from one continent to another. One of the most important lessons I've learned is that health equity starts from within. The only way we can succeed in helping improve people's lives around the globe is to ensure we have equity within our companies.**

China is now the world's second-largest pharmaceutical market. The population is growing and aging – and the need for innovative medicines has never been greater. A few decades ago, China did not provide healthcare coverage for many of its citizens, and drug development in China lagged behind the United States and Europe. Many serious diseases, including those with higher incidences such as lung cancer and gastric cancer, were inadequately treated.

When I founded Zai Lab in 2014, we were among the first to see this opportunity to help people by delivering innovative treatments in areas of great need and have been at the forefront of healthcare reforms in China. Zai Lab has become the partner of choice in China in just seven years, with four marketed products and a robust pipeline. Our team is dedicated to ensuring people have access to these therapies by seeking inclusion on China's National Drug Reimbursement List,



launching patient assistance programs, working with insurance providers, and tailoring prices to the standard of living of the country in which they are sold.

Building on our success in China, Zai Lab is now focused on becoming a leading global biopharma company with a growing pipeline of 11 assets with global rights. We will go wherever the need is great – and as we do so, we will remain committed to ensuring access to our products at affordable prices.

For us to achieve this bold endeavor, we have worked hard to bring together people with a broad range of capabilities from many nations and cultures. With offices in China, Menlo Park and Cambridge, we transcend borders, respect all cultures, and are unified in our mission to provide access to medicines for people in need around the world.

Our global commitment to health equity starts from within by building a diverse and inclusive culture that drives our innovation and growth. We are committed to ensuring that all our employees are able to work in an

environment that is free of discrimination, intimidation, harassment or bullying.

One specific area I am particularly proud of is our work to bring female leadership to the fore around the world and at all levels of responsibility. For many years, I have been an advocate for female leadership within China; and now, in my role at Zai Lab, I've made it a priority to ensure that our employees' potential is unlimited, regardless of gender.

Today, women represent 57% of the Zai Lab workforce and hold 53.8% of our management positions, and I am proud that we have already achieved gender equity in pay and leadership at all levels of the organization. I am proud of our progress but also know there is more work to be done.

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After 30 years in this industry, one of the things I still love about research is that scientists are – and always need to be – curious problem solvers. When we ask “what if,” we will continue to support and encourage our employees, closing the equity gaps within our companies and for the people in need around the world. ■



Addressing Health Inequities Through DEI and Community Partnerships

Submitted by KPMG



- **KPMG U.S. has inspired confidence and empowered change – solving our clients' and communities' most complex challenges while guided by our purpose and values: integrity, excellence, courage, together and for better. Creating a more diverse life sciences industry and improving health equity for marginalized groups are critical for our company, our clients, and our communities.**

The KPMG U.S. Foundation has committed more than \$125 million over the next five years to support organizations, programs and initiatives that advance equity and access among underrepresented groups who have historically faced systemic barriers in our communities. We hope that other organizations take note and follow suit with their own commitments.

Recently, KPMG was recognized among DiversityInc's Top 50 Companies for Diversity for the 16th consecutive year. This honor shows our progress in our Accelerate 2025 vision: our long-term strategy and commitment to diversity, equity and inclusion centered on attracting, retaining, and advancing underrepresented talent. Our aspirations for 2025 include:



- 50% partner and managing director representation from underrepresented groups, including doubling our Black representation
- 50% increase in our Black and Hispanic/Latinx workforce
- Significant increase in representation from underrepresented groups in client and firmwide leadership roles
- Increased representation of women in senior leadership (partners and managing directors) to 33% as part of KPMG International's global goal

Our focus on equity applies not only to our workforce but also extends to our broader communities. KPMG's partnership with the Morehouse School of Medicine showcases our commitment to improving health equity and access in underserved communities.

During the pandemic last year, KPMG collaborated with the National COVID-19 Resiliency Network (NCR) and Morehouse School of Medicine to launch a new mobile app designed to enable racial/ethnic minority groups hardest hit by the pandemic to easily find nearby COVID-19 vaccination sites and testing facilities. The app is a consumer gateway to what we believe could be a model for a technology solution that could also address

health disparities in populations that have historically suffered from a lack of equitable access to healthcare.

The Morehouse School of Medicine and KPMG have also created an ongoing discussion series with KPMG experts that focuses on using technology, data, and analytics to address the need for an improved user experience for doctors, staff and patients. Ultimately, the hope of these discussions is to leverage technology, data, and analytics to create better informed doctors, better access to medicine and better medical outcomes.

Ensuring we have clinicians and professionals in healthcare and life sciences who are aware of health disparities and potential solutions will help improve the way healthcare is delivered. This series will continue through December and discuss health equity innovation, the use of automation and artificial intelligence in healthcare, healthcare operations, performance improvement, healthcare plans, the future of healthcare, and the use of data to drive change.

There is so much to do, but this year demonstrates that the wheels are already in motion. We are taking tangible steps to drive a more equitable and sustainable society. It is our responsibility to do our part in supporting our clients and communities together, for better. ■



Innovation in Sample Collection is Critical to Overcoming Cost Obstacles to Widespread Adoption of Genetic Testing

Submitted by The Porex Life Sciences Institute, Filtration Group

■ As genetic testing to understand disease predisposition rises in popularity, we gain increased access to the ability to not only diagnose, but predict, detect, and intervene sooner in our personal health decisions. However, access to genetic testing in communities of color is limited. Diminished access in these communities also weakens the utility of the genetic result itself. In a 2006 study, 1,765 women opted to have their BRCA gene mutations analyzed to understand their hereditary risk for breast cancer. The study concluded that 45.1% of the African American participants tested positive for "variant of unknown significance" (VUS result), which means that the implications of this variant had not been thoroughly studied. This is compared with only 5.5% of white women who received a VUS result in the same study.¹ Hypotheses as to the cause of low participation rates in genetic services in these



communities include the need for public education surrounding the importance of genetics, building trust between patients and their doctors to engage in genetic testing, insufficient genetic test coverage by insurance, and the overall extremely prohibitive cost of genetic tests.² To overcome the inaccessible price point of genetic testing, the entire process from sample collection to delivering results via a genetic counselor should be examined for cost reduction.



Decades of development and iteration have gone into the perfection of blood collection tubes to ensure a seamless integration with high-volume automation and analysis equipment, increasing the throughput of equipment, the results, and allowing routine blood tests to be offered at a lower price. As genetic sequencing volumes ramp up and analysis equipment evolves to handle higher sample quantities, it is critical that the costs saved during analysis are matched by cost savings in automation compatibility potential. The Porex Life Sciences Institute has prioritized innovation in automation-compatible saliva sample collection with their novel Saletto™ saliva collection device, which is designed to accept different collection vials depending on the laboratory preference. Ensuring that samples arrive at the laboratory in a vessel that is consistent with the analysis equipment's setup prevents contamination, saves manual transfer steps, and yields cost savings that can be passed down to the patient.

The COVID-19 pandemic revolutionized the global diagnostic landscape by shifting samples to at-home collection methods and made saliva an everyday non-invasive alternative sample type. However, not all non-invasive saliva collection techniques are accessible.

Saliva collection devices that require expectoration are inaccessible to infants, small children, older adults, and some people with disabilities. Saliva has been proven to provide an adequate genetic sample, can be collected at home, and is less costly to obtain and transport when compared to blood. The Saletto™ saliva collection device aims to address accessibility issues during collection, incorporates filtration to resolve sample variability and improve quality, and provides automation-ready samples, allowing genetic testing to take advantage of cost savings pre-analysis. Innovating at the sample collection level will drive higher adoption of genetic services within these underserved communities, when paired with the necessary education, trust-building, and insurance coverage. ■

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Power in Patient Advocacy

Equity for people living with psoriatic disease

Submitted by IFPA

■ **"Not many are open about psoriasis here. When I look at other countries, I am amazed," said Tamsin October, community development practitioner from Cape Town, South Africa.**

She runs a youth organization for children in socio-economically challenged areas. Tamsin was diagnosed with psoriasis at age 13.

Tamsin said the lack of awareness in her community made it harder to cope with the damage to her skin.

"I was always questioned about the marks on my body or arms. I wore long dresses and shirts even in the summer. I still do up to this day," she said.

Though Tamsin herself was aware that psoriatic disease is not contagious, the rest of her peers were not as enlightened. Tamsin was often left with the lonely task of spreading knowledge all by herself.

"At an age where I was going through puberty, body changes, and high school, I faced embarrassment, shyness, and lack of self-confidence, she said. "I had no self-love."

As Tamsin grew into adulthood, she searched for belonging with other people who understood what it was like to have psoriatic disease. That's how she became involved with the South African Psoriasis Association, a member of IFPA.

Founded in 1971, IFPA is the global organization uniting all people living with psoriatic disease – regardless of where they live, what type of psoriatic disease they have, or how it impacts their lives. IFPA's worldwide members represent more than 60 million people living with psoriatic disease. Together, they advocate for progress.



Tamsin October, Cape Town, South Africa

As Tamsin began to collect global contacts, she started hearing about patient communities in other countries.

"Hundreds of people with psoriasis gather [in other countries]," Tamsin said. "They have so many programs. Education and awareness are key. It's important."

Stories like Tamsin's reverberate within IFPA's worldwide membership. Certainly, everyone with psoriatic disease can relate to the stigma and isolation that often accompanies a visible illness. Funding for awareness-



IFPA Members, Frankfurt, Germany, 2014

raising activities and data collection is closely tied to countries with available treatments, making it more difficult for certain associations to advocate.

IFPA advocates are working together to combat injustice in psoriatic disease. National organizations are championing laws to increase access to specialist care and effective treatments. IFPA provides grants to close the funding gap in underserved regions. Tamsin herself is a leader in IFPA's diversity project called *All the Colors We Are*.

For Frida Dunger Johnsson, IFPA's executive director, it comes down to representation and equity.

"True equity is not one-dimensional," she explained. "We need a multi-pronged approach to address the diversity in our community. Health equity is a human right."

What does psoriatic disease look like on darker skin? Anyone can have psoriatic disease, yet the vast majority of images depict it on white skin and in Western clinical environments. With the *All the Colors We Are* project, IFPA is collecting photos of psoriatic disease in context, to make the public aware of the powerful people and diverse situations within this community. As the global patient association, IFPA has the mandate and position to collect and share these resources.

Tackling the financial dimension, the IFPA Solidarity Fund was created to address the resource gap faced by many national member associations. The fund awards grants to support psoriatic disease advocacy, education, and awareness-raising. So far, projects include a podcast in Vietnam, website development in Kenya, and illustrations in Peru.

IFPA ensures global representation for psoriatic disease. The organization is recruiting and creating new psoriatic disease patient associations where none exist. IFPA Accelerator is a training program that guides new advocates to found a patient association, and build skills such as strategic planning, campaigning, and peer support. Powerful patient associations effectively serve their community at home, and on the global stage.

If someone like Tamsin searches for solidarity, is it available? Health equity for people with psoriatic disease is achievable. The methods for getting there must be as diverse as the people that will use them. By addressing inequalities in representation, funding, training, access, and more, IFPA is fighting for the wellbeing of everyone affected by psoriatic disease. ■

Hear from IFPA's Frida Dunger-Johnsson on a panel exploring Global Patient Advocacy at the 2022 BIO International Convention. **Register here.**



Building Solutions for More Accessible and Equitable Healthcare

Submitted by Telebionix



■ **Telebionix is reimagining the future of healthcare by measuring patients' daily health, providing AI-driven insights, and keeping patients connected to caregivers from the comfort of their homes. They have created an integrated solution for home-based care that can address chronic disease management, a growing elderly population, and rural communities with limited**

or no access to healthcare while experiencing an increasing shortage of primary health professionals.

Remosense was perfected during the pandemic conditions by asking medical professionals, "what do you need?" Doctors and nurses continuously described a tool that would enable any clinician to receive a patient's vital signs accurately, from anywhere, to feel confident in their diagnosis, keeping patients safe in their homes unless patient parameters were trending to critical. The Remosense platform was designed to enable that data exchange securely, accurately, in real-time, track and share historical patient data such as



heart rate, blood pressure, SPO2, heart rate variability, body temperature, eight-lead ECG, and self-calibrating stethoscope for heart and lung sounds.

They believe Remosense will affordably expand access to quality care for rural communities which do not have access to healthcare; currently, this is 20% of the US population and underserved communities who need to take advantage of cost-effective remote care services without forfeiting their piece of mind wondering if they received an accurate and complete diagnosis. This solution can improve the quality of life for an aging population and those who are mobility challenged while using data-driven insights to improve the health of the world's population.

Telebionix believes healthcare is a human right, and everyone should have access to quality and reliable healthcare. Many from the Telebionix team come from an ethnically diverse background that understands what it means not to have access to healthcare and the challenges families face when caring for their loved ones who may be thousands of miles away. Yet, collectively, the team behind Telebionix brings 60+ years of professional experience in IT, AI, Robotics, Cybersecurity, Medical Devices, Pharmaceuticals, and Medical Care, among other industries, and this has been the key for them to designing an agnostic, simple, and reliable tool that adds value to both patients and doctors. Diversity of thought and inclusion of ideas has been the team-building philosophy since Telebionix was founded in 2020 by Widy Medina and Agbiath Chbib.

"In my experience, solving problems requires candid communication, and everyone who has a stake or experience with the said problem needs to be heard; that is the only way we can build solutions where everyone in the value chain can win. We have seen consistent feedback from customers and potential users wanting Remosense in their homes," Medina said.

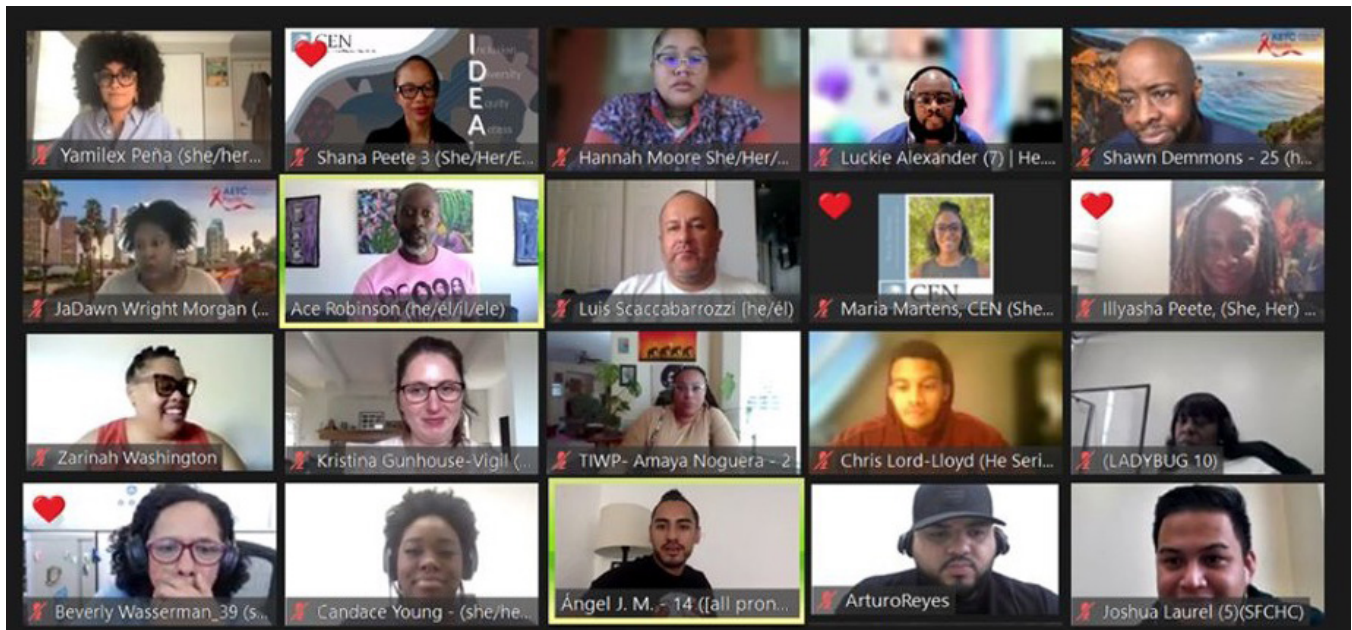


One of their biggest challenges is deploying the Remosense to the public, learning and working with local government organizations or advocacy agencies to track the impact Remosense can have at a smaller scale in these communities. As an immediate measurement of impact, they would like to see an increase in acceptability and adoptability of digital health among under and unserved communities while growing the baseline of patients using telehealth as a viable alternative versus in-office and hospital visits. ■



Why Health Equity Should be a Pillar of Your Organization

Submitted by California Life Sciences



■ A group of BIPOC life science leaders met together for the first time last month—with a shared mission to reduce inequity in healthcare.

It was the first of a four-part workshop series called "Public Health & Its Access to Historically Excluded Communities," a partnership between the California Life Sciences (CLS) Racial and Social Equity Initiative (RSE), Center for Excellence in Nonprofits (CEN), and Gilead.

The workshop will leave participants with a customized playbook on how to increase access and improve health outcomes for historically excluded communities.

"I am someone who has seen first-hand in my professional and personal life the ultimate impact of exclusionary leadership in the healthcare space," said Ace Robinson, health equity advocate and population

health expert leading the workshop. "Exclusionary leadership in clinical research and healthcare implementation has consistently led to disparate health outcomes for Black-Indigenous-People of Color (BIPOC)."

And this workshop, Robinson said, has already led to empowerment—with members of the cohort learning and developing the hard skills to provide services throughout the communities that look like them.

"They've shared how much it has meant to have these tough conversations with people with shared experiences," he said. "Making intentional space for BIPOC is crucial to not only survive, but necessary to thrive as well."

For this reason, CLS launched RSE in 2021. It is our bold plan to commit to change. So far, RSE has partnered with more than 80 organizations to create diverse boards, empower, and invest in diverse innovators and entrepreneurs, develop BIPOC talent to fuel our



innovation pipeline, and improve health equity. CLS has raised close to \$3 million to fund these efforts.

With health equity being a main pillar of focus, RSE has also partnered with the African American Community Service Agency to sponsor their COVID-19 Vaccine Equity Project, which aims to remove access and trust barriers to ensure people of highest risk receive vaccinations. Through this partnership, AACSA has distributed more than 1,200 tests, PPEs, and offered mental health therapy to more than 5,000 people.

Additionally, RSE has partnered with the California Black Health Network for the CLS Health4LifeInitiative.

It aims to improve health literacy of both patients and providers.

"If you are not focused on health equity as a *pillar* of your organization or entity, you will not be able to meaningfully achieve equity within the clinical research or public health sectors with your patients, end-users, and/or clientele," Robinson said.

California Life Sciences will continue to work with our partners to create a more diverse, equitable industry. We invite you [to join us in our efforts.](#) ■



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How BioscienceLA Uses Programs to Create Opportunities for Historically Underrepresented Populations

Submitted by BioscienceLA

- **Founded in 2018, BioscienceLA is the innovation catalyst for life sciences in the greater Los Angeles region, accelerating the growth of funding, space, and talent. The independent not-for-profit organization was seeded by LA County, and has backing from Amgen, PhRMA, Richard Lundquist, Richard Merkin, City of Hope, and Cedars-Sinai, among others.**

As a catalyst for innovation, BioscienceLA seeks to enable diversity, amplify science, and accelerate collaboration. BioscienceLA has both an economic development and workforce development focus on historically underrepresented populations. Its programs, which range from the BioFutures Internship Program to the Summer Internship Experience, the Leadership Catalyst Program to a new venture fund collaboration with Wavemaker Three-Sixty Health, share a common theme to create opportunities for women, LGBTQ, and minority students, founders, and funders.

The BioFutures Internship Program is a competitive program to connect students from historically underrepresented backgrounds with subsidized internships and career development programming, designed to increase opportunities for students and companies year-round. The program features **paid internships at an LA life sciences company** (including biotech, medtech, and digital health companies, and



both technical and non-technical roles) subsidized by BioscienceLA, **mentorship opportunities** with individuals from organizations like BCLA and Women in Bio, **networking events** held at BioscienceLA's Culver City Collaboration Hub with ecosystem leaders and program alumni, and an **alumni program** to stay involved and connected to the ecosystem and each other. Since launching in 2021, BioFutures has grown to 250+ students in the database, funded 33 internships, and celebrated four students obtaining full-time job offers at the completion of their internship. The 2022 goal is to fund 100 interns with an even more diverse group of SoCal companies and roles.



BioscienceLA is generally pleased with the ethnic diversity of the applicants and of the placements thus far, although the Black/African American/Caribbean applicant pool (and, therefore, placement pool) remains lower than desired. BioscienceLA is continuing to recruit additional students, especially from underrepresented populations, through targeted marketing campaigns and continued outreach to community organizations and student groups. BioscienceLA expects that outreach will become easier with face-to-face information sessions in the future, as well as the ability to feature alumni and case studies in our outreach.

In early 2022, BioscienceLA hired Janae' Franklin as the Student Programs Lead to help manage the BioFutures Program. Her education journey includes transferring from Santa Monica College (SMC) to California State University, Northridge (CSUN), and now achieving her MS at Loyola Marymount University (LMU). Janae' has an extensive background in school leadership, project management, marketing, growth strategy, tech sales, and event coordination. Janae' has had early success in connecting with faculty at the local community colleges and hosting numerous virtual information sessions for students, growing the candidate pool by almost 100 students. To recruit companies, Janae' hosted a Company Happy Hour in the spring to share more about the program, as well as hosts one-on-one calls with potential companies to find the best student intern in the database that meets the current need of the company.

Early in the development and launch of BioFutures, we realized this program would be most successful with partnerships that would extend the reach and impact of the initiative. BioscienceLA has collaborated with individual community colleges and organizations like California Life Sciences, Biocom California Institute, and LAEDC's Center for a Competitive Workforce. In addition, BioscienceLA has begun to build partnerships with accelerator programs that share the vision for inclusion and equity, such as Larta Institute's Heal.LA and UCLA Health's TechQuity Accelerator, which was funded by an EDA SPRINT Challenge grant to UCLA Biodesign in partnership with BioscienceLA.

TechQuity seeks to advance health equity and community health resiliency for populations most impacted through the COVID-19 pandemic, by working with mission-driven startups. BioscienceLA's partnership with TechQuity is a way to grow both the accelerator program and the BioFutures Internship Program, by sharing connections, workshops, mentor trainings, networking events, and symposia opportunities for both startups and students. Participants in the TechQuity Accelerator will be paired with student interns that will be subsidized by BioscienceLA, as part of the BioFutures Program. While BioFutures is contributing to the initiative via internship subsidies, UCLA is using some of its EDA funding on this program to support payroll for the Student Programs Lead. ■



Narrowing the Health Equity Gap Through Clinical Research

BIO 2022 International Convention Forum



Lindsay Cobbs



Dr. Jeremy Levin



Dr. Willyanne DeCormier Plosky



Dr. Jacqueline Corrigan-Curay



Melika Davis

■ **Enhancing diversity and inclusion in clinical studies is critical to help narrow the health equity gap. Clinical researchers should ensure clinical trials are reflective of patients that are impacted by the disease. This forum will explore emerging principles and concrete strategies for addressing demographic disparities and achieving representativeness in clinical trials. Our panelists will discuss potential new models for identifying principal investigators that can effectively serve clinical trial needs and for improving health equity by establishing authentic partnerships in underrepresented communities.**

Panelists will discuss emerging principles regarding what constitutes acceptable diversity in clinical studies and share insights into how engaging with clinicians and patients in underrepresented communities can help to achieve diversity in clinical trials. The forum will also address considerations for enhancing diversity through nontraditional channels (e.g., outreach at community centers, social media), clinical trialist training and educational campaigns.

Lastly, panelists will discuss strategies for making clinical research more flexible and accessible. Session speakers include Lindsay Cobbs, Regulatory Policy Lead, NALA Regulatory Policy & Intelligence (Moderator); Melika Davis, VP of Global Clinical Operations, BeiGene (Panelist); Willyanne DeCormier Plosky, Multi-Regional Clinical Trials (Panelist); Jacqueline Corrigan Curay, Principal Deputy Center Director in FDA's Center for Drug Evaluation and Research (CDER); and Jeremy Levin, BIO Board Member, CEO of Ovid Therapeutics (Panelist). ■

[Register Now](#)



Advancing Research & Development Strategy Begins with the Patient

Submitted by Dr. Kelvin Tan, Chief Medical Officer, Jazz Pharmaceuticals



■ **At Jazz, we have a longstanding commitment to innovate to transform the lives of patients and their families, and that is central to every decision we make. Our pledge to patients continues to be at the center of what we do; with this comes the responsibility to leverage our research and development (R&D) capabilities to create differentiated treatments that reflect the patient perspective and ultimately meet their needs.**

My Commitment to Jazz and the People We Serve

Through my experiences in clinical medicine, academic research, and the pharmaceutical industry, I have seen first-hand some of the challenges patients and their families face when accessing and navigating complex healthcare systems, particularly during times of acutely stressful clinical situations. As the child of immigrant parents, I also deeply recognize how cultural and language differences can be an additional barrier to care. These experiences have shaped my view of how much more we can do and need to do, not only to provide access to life-changing medicines, but also to enable greater participation in clinical trials designed to meet their needs. I will continue to take actions to ensure the patient voice is heard and constantly explore what more we can do.



This begins with talking and listening to those living with disease and reflecting their needs in our R&D priorities and throughout all stages of the drug development lifecycle as we pursue novel, meaningful medicines that advance patient care.

Our ability to be innovative and agile to maximize opportunities that exist across all of our clinical focus areas is the cornerstone of Jazz's development strategy.

Patient Centricity

Our commitment to patient-centric innovation brings a holistic patient perspective more fully into our processes. Our team works closely with patients, partnering with Global Advocacy and Patient Support Services Teams, to truly understand and incorporate the patient voice across the entire R&D continuum. To put this into practice, this year we partnered with the Hypersomnia Foundation to launch the I Have IH campaign in an effort to better understand the unmet needs across the idiopathic hypersomnia community and to increase awareness and understanding of the disorder.

As we have continued to integrate patient centricity into Jazz's new and existing therapeutic areas, we recently launched our [*Nothing Small About It*](#) (NSAI) program. NSAI includes the first website and digital resource dedicated solely to small cell lung cancer (SCLC) patients and caregivers, providing user-friendly content that puts real people and their stories at the center of the experience to enable those living with SCLC to become informed advocates.

We believe it is important for us to listen to patients, physicians, care teams and advocacy groups for insights that will help us create new or better standards of care, leading to better treatment outcomes.

Addressing Health Disparities through R&D

Finally, these complex conditions often come with health and social inequities faced by patients, most importantly access to care. That is why I am committed to advancing diversity efforts across our R&D organization as we strive to deliver the right treatment to the right patient at the right time without barriers, regardless of social status, race, or ethnicity.

As an industry, we must do more to address health disparities and bring equity to all people living with complex conditions. One way Jazz is making strides is through collaborations with leading industry organizations, including Stand Up To Cancer (SU2C), Children's Oncology Group and others. Most recently, our partnership with SU2C began to accelerate cancer research in areas of significant need and to also discover how we can improve access to cancer therapies for people from underserved communities.

At Jazz, we are striving to learn how we can be a key part of the solution to breaking down these barriers, and ensure we reach even wider groups of patients with our medicines. I have always appreciated our ability to adapt as we take bold risks, seek new ideas and continue to find ways to further innovate to transform the lives of patient and their families. ■



Dr. Kelvin Tan, Chief Medical Officer, Jazz Pharmaceuticals



How Johnson & Johnson is Working to Change the Culture of Healthcare

Submitted by Johnson & Johnson



■ **Johnson & Johnson (J&J) aspires to help eradicate racial and social injustice as a public health threat by eliminating health inequities for people of color. In 2020, J&J committed \$100 million to invest and promote health equity solutions over the next five years. In alignment with the J&J Credo, the company's commitment to diversity, equity and inclusion, and the legacy of taking on the toughest health challenges,**

Our Race to Health Equity (ORTHE) is working to change the culture of healthcare. J&J is cultivating one of the most diverse and inclusive healthcare workforces that inspire innovative healthcare solutions around the world; building healthier communities by helping close the racial mortality gap by investing in culturally competent community care models that create health outcomes for people of color; and building



enduring alliances leveraging J&J's innovation and powerful partnership network to combat racial and social health determinants.

Healthcare Workforce

Through the [ORTHE](#) initiative, and in partnership with the National Association of Community Health Center's (NACHC) Workforce Development Grant Program, J&J has provided grants to 11 community health centers. These grants will help enhance the skills of frontline healthcare workers and mid-level managers who've been working tirelessly in vulnerable communities that have been continuously under-resourced while battling the COVID-19 pandemic.

J&J's Consumer Health business partnered with the National Black Nurses Association (NBNA) and the Foundation of the National Student Nurses' Association (FNSNA), with a multi-year commitment of \$300,000 to financially support Black nursing students by providing scholarships and membership support to help increase representation and retention in the nursing profession.

Last year, [Ethicon](#) partnered with the [Society of Black Academic Surgeons](#) (SBAS), spawning the Diverse Surgeons Initiative (DSI), which provides training to surgical residents of color. Ethicon works with cohorts to provide training that includes surgical anatomy, basic laparoscopy and suturing, physiology and pathophysiology, clinical scenarios, and both simulated and live surgeries.

J&J also recognizes the need to advance diversity and inclusion within clinical trials, including boosting the representation of people of color to lead these research studies. Since 2019, the [Janssen](#) Pharmaceutical Companies of J&J have focused on being more inclusive of members of groups historically underrepresented in clinical research. As part of this work, Janssen co-sponsors and funds the [National Medical Fellowships](#) Diversity in Clinical Trials Research (NMF Dctr) program, which trains clinicians of color to serve as Principal Investigators (PIs) in clinical research. Selected physicians engage in an eight-week [curriculum](#), followed by ongoing mentoring and networking to bridge the gap between training and practice.

Healthier Communities

With funding from J&J's Office of the Chief Medical Officer, the J&J Health of Women team is partnering with multiple academic institutions, health workers, community organizations and maternal health leaders to develop an integrated approach to [improving maternal health care for Black mothers in Georgia](#), where women are 52% more likely to die in the first year after birth compared to the national average. Approaches include the use of a postpartum mobile app; ethnographic research studies focused on social listening to understand perceptions of telehealth for maternity care; and a telehealth service for pregnant women that offers live support by frontline health workers.

Innovation and Enduring Alliances

J&J has engaged in community and social impact initiatives and leveraged long-standing partnerships, dedicated employees, and company resources to build solutions and spark life-changing innovations that improve global health.

For the past seven years, [Johnson & Johnson Vision](#) has offered vision evaluations at the [National Urban League](#) (NUL) annual conference. Each year, hundreds of attendees, who may not have otherwise had the opportunity, can meet with vision experts to get eye screenings that include glaucoma testing and a high-tech retina scan. The goal: educate people about eye health and diagnose any eye or systemic health issues people may be having, such as complications from diabetes or high blood pressure—two health conditions that are prevalent in the African American community.

In the fall of 2021, Johnson & Johnson launched a new community-based initiative, the Health Equity Innovation Challenge, which seeks to accelerate innovations with the potential to advance health equity. Investing in community-based solutions developed for the community by the community is an essential component to closing the racial health and mortality gap. The Challenge aims to support potential innovative solutions from entrepreneurs, innovators, and community-based organizations – beginning in six cities where Black and Hispanic communities experience significant health inequities: Chicago, Detroit, Los Angeles, New Orleans, New York City and Philadelphia. ■



How Health Career Connection is Preparing the Next Generation of Diverse Health Leaders

Submitted by Health Career Connection

■ **For more than 30 years, Health Career Connection (HCC), a national non-profit, has inspired, empowered, and professionally prepared the next generation of diverse health leaders and professionals. HCC's 4200 alumni are advancing innovation, excellence and diversity as leaders, clinicians and researchers in healthcare, life sciences and public health. HCC alumni and interns are contributing to the talent, diversity and project goals of our employer, association, and graduate education partners. They are also transforming health, equity and racial justice in institutions and the health industry.**

Over the past two years, HCC has begun partnering with leading life sciences companies to leverage its proven turnkey process, recruitment strategies and comprehensive educational program to increase career and professional development opportunities for HCC candidates and meet company and industry goals. HCC provides promising undergraduate students from underrepresented backgrounds and under-resourced communities with life-changing, career-launching opportunities. Through its comprehensive paid health internship and training programs, HCC is preparing leaders with the lived experience, dedication, and skills to advance health equity and racial justice. HCC will

also expand its opportunities to graduate students in biopharma related fields in 2023.

Additionally, HCC convenes health industry experts to share best practices for improving and advancing health equity and to guide HCC interns and scholars who will become the next generation of health equity leaders. HCC's programs include robust training for developing a framework and strategies for advancing health equity. HCC interns and scholars also have an opportunity to hear from various leaders on their own career journeys to improving health equity. With a focus on mentorship, HCC interns and scholars work alongside health leaders, many of whom are HCC alumni, who are advancing health equity locally and nationally.

HCC's core strength is recruiting, placing, and educating students from communities and backgrounds that reflect the rich diversity of populations in the US. They know the culture, language and dynamics of those communities which help them better understand and address the factors that improve health. They utilize their knowledge and skills to help inform life sciences companies how to best design, deliver and promote their products to meet the health of all communities, particularly those who are historically underserved. HCC educates students from these various groups on the health inequalities and provides them with the skills, resources, and connections to advocate for change and empowers them to become health equity leaders. These diverse leaders are then best positioned to make the institutional and system change needed to improve health equity. In a 2022 survey of HCC alumni, 68% of respondents stated they work in underserved communities. Of those respondents, 70% are collaborating with Latino communities, 65% are working with Black/African American communities, 44% with LGBTQIA+ communities, 32% with Native American communities.



To empower students and accomplish its goals, HCC recruits nationally through hundreds of colleges and universities that it has partnered with for over 30 years as well as from local communities and health pipeline and STEM Programs. HCC recruits students from Historically Black Colleges and Universities, Hispanic-serving institutions and top private and public institutions nationwide. HCC and United Negro College Fund are building a robust partnership to develop a coordinated, systematic, large-scale initiative to increase health career, employment and graduate education opportunities for black college students and alumni interested in the health sector and advancing health equity and health improvement.

During summer 2021, HCC placed 18 summer interns at BioMarin from underrepresented communities. In

addition to lab and bio informatics roles, internships included QA, Marketing, Finance, Business Operations, HR, Communications, Compliance and Business Development. In summer 2022, HCC has launched new partnerships in CA, Boston, Chicago, and Washington, DC.

HCC and California Life Sciences (CLS) are collaborating in providing paid internships for college students from underrepresented communities with life science companies in California. HCC is an integral team member in the Racial and Social Equity (RSE) Talent Pillar. HCC looks forward to sharing its lessons learned and proven practices with CLS members and affiliates and continue advancing diversity, equity, and talent in the life sciences industry. ■

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How One Internship Program is Helping Under-Resourced College Students Get an Onramp Into Life Sciences

Submitted by Life Sciences Cares

PROJECT ONRAMP



■ **As we turn the calendar in to June and beyond the BIO Convention, many life science professionals will take time off and time away. But for the nearly 200 Project Onramp interns, this summer is an opportunity to explore new fields and gain critical work experience in and among the life science industry's most exciting companies.**

Now in its third year, Project Onramp matches college students from under-resourced and under-represented backgrounds with paid summer internships throughout the life sciences. The program—developed and lead by [Life Science Cares](#)— helps bridge the opportunity gap for talented and motivated students who might not otherwise have a connection, or "onramp," into our industry.

Since launching in Boston in summer 2019, Project Onramp has placed 216 students in positions spanning the life science industry, including R&D, business operations, human resources, data analytics, marketing

and legal. In 2022, we have matched nearly 200 interns to be at work in more than 80 companies in the Boston, Philadelphia, San Diego and Bay Area ecosystems.

With continued investment by donors, employers and supervisors, we will grow to reach 1,000 students each summer by 2028 and replicate results in student interest and job placements in the industry.

Research shows there are three major obstacles to building diverse career pathways for under-represented & under-resourced students. Project Onramp aims to support students to overcome all three:

1. **ACCESS:** Under-resourced and under-represented students often lack the social capital to identify and compete for summer internships.

Project Onramp companies set aside internship opportunities specifically for Project Onramp students, ensuring that the biases that present themselves in traditional hiring processes are not repeated here.

2. **AWARENESS:** A young person can't be what they don't see. Ensuring students have broad insight into the industry underlines the possibilities they might consider.

We work with companies to design internship opportunities that involve meaningful work



and encourage companies to allow interns the opportunity to see roles across the organization. Additional professional development workshops, industry leadership panels and networking sessions scheduled throughout the summer ensure Project Onramp students receive a holistic picture of the industry and its opportunities.

3. **BELIEF:** Students must believe they belong in the life sciences.

By building a peer cohort model and connecting students in small groups with committed industry mentors, we build student confidence. Project Onramp also supports our alumni, with one-on-one career conversations and by sharing relevant job opportunities.

Project Onramp is:

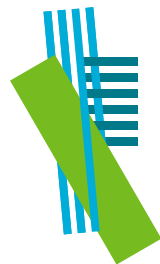
- **Centered on the student.**
- **Built around strategic partnerships,** with student support organizations that excel in supporting students both academically and with internship preparation as well as ongoing troubleshooting support throughout the Project Onramp internship period.
- **High-touch.** We work individually with companies to determine their talent needs and create meaningful work opportunities, while aligning seamlessly with their existing processes and timelines. We provide training & resources to ensure companies are best positioned to hire for potential, and to adequately support Project Onramp interns throughout the summer. We are in regular communication with

companies, hiring managers, supervisors, student support partners and students.

- **High support.** We work closely with student support partners to recruit & curate students, ensure students have wraparound support for resume review, interview prep, professional communications, as well as insight about the industry (info sessions) before they start work. Throughout the summer, we provide professional development and opportunities for networking with both industry professional and peers. We also provide opportunities for students to connect with mentors in small groups.
- **High expectation.** Project Onramp serves students who have the potential to rise to positions of leadership in our industry. Many students expect to eventually attend graduate school. Project Onramp serves companies committed to creating a diverse internship pipeline, with the intention of offering adequate support in order to create an inclusive work environment.

In a time when the inequities that exist in our society and our community were thrown into stark relief, we are proud of the industry's enthusiasm for a program that is trying to level the playing field for undergraduates from low-income backgrounds. We'll be looking for even more host companies, supervisors and donors to support this work as we grow. ■

Rob Perez, founder and chairman of Life Science Cares, will be speaking at a session at the BIO International Convention. **Register here** to attend "Improving Disparity Begins with Us: Biotech Leaders Drive Diversity, Equity and Inclusion in Healthcare."



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**Our next issue of the CLS Bulletin will explore
Cancer Moonshot**



To inquire about submitting an article, contact
Alex Burch at aburch@califesciences.org

About California Life Sciences (CLS)

California Life Sciences (CLS) is the state's most influential and impactful life sciences membership organization, advocating for the sector and its diverse innovation pipeline. For more than 30 years, CLS has served the community by supporting companies of all sizes, from early-stage innovators and startups to established industry leaders in the fields of biotechnology, pharmaceuticals, and medical technology. As integral components of a healthy and collaborative ecosystem, CLS also works closely with universities, academic and research institutions, the investment community, and other critical partners that promote this vibrant sector. With offices in South San Francisco, San Diego, Sacramento, Los Angeles, and Washington DC, CLS works to shape public policy, improve access to breakthrough technologies, educate lawmakers, and advance equity within our ecosystem by championing innovative solutions for some of the most pressing challenges of our times. In doing so, CLS fulfills its mission to protect and nurture California's life sciences industry, empowering discoveries that lead to healthier lives around the world. Visit CLS at www.califesciences.org, and follow us on Twitter @CALifeSciences, Facebook, LinkedIn and YouTube.