MESSAGE FROM THE EXECUTIVE DIRECTOR

DEAR READER,

At Biotech Partners where our focus is on nurturing the next generation of biotechnologists, the CoVID-19 pandemic is a dramatic reminder of how important our core mission is for today and future societies. The value of fostering relationships between industry mentors and STEM high school students that our program facilitates is starkly apparent for today.

In 2020, our High School Academy students had completed almost all their curriculum of hands-on biotech lab skills and professional training when we were all placed on lock-down. Students continued coursework online and their learning benefited enormously from the unprecedented international focus on the biology of SARS-COV-2 and CoVID-19. Everything they had been learning in their curricula of -- chemistry, statistics, algebra, biotechnology, math were suddenly on daily review in the media.

As an organization, we started planning for a new world of work, exploring with our partners how best to re-engineer our 2020 and 2021 Summer Internship Program to accommodate the federal, state and local Shelter In Place (SIP) mandates and/or social distancing requirements.

Recognizing that biotech companies would need data analysis and data organization skills, we partnered with CodeHS, The Jackson Labs and Data Carpentry to embed training in Python coding, Excel and Bioinformatics into our first Virtual Internship Program (VIP).

Following the success of our Summer coding track, we launched our new online iLAB After-School programming during the 2021 school year to enhance student’s skillsets and advance their opportunity to participate in data scientist internships.

Today, our young biotechnologists have made the transition from the classroom to the new norms of the workplace and have adapted to their virtual and in-person internships. We want to thank our many donors, sponsors and partners who continue to invest in the lives of our next generation of scientists and STEM professionals.

ALL OUR BEST,
Lynda Gayden
Each high school adapted to the ever-changing environment and local health and safety guidelines of COVID-19. All school sites have plans to return to campus for the 2021-22 school year.

**SAN MARIN HIGH SCHOOL**
- Transitioned to hybrid in-person instruction in the first week of March. Half of the class "Zoomed" in from home, while the other half went to campus.
- In mid-April, the school fully opened for in-person instruction, except for those who chose to continue remote learning.

**BERKELEY HIGH SCHOOL**
- Transitioned to hybrid learning in March; giving students the option to come back to campus, students were prioritized based on individual need.
- Virtual learning from 8am-12pm and students go to campus from 2-3:30pm; each day is dedicated to a different class.

**ANTIOCH HIGH SCHOOL**
- Proceeded with online learning throughout the 2020-21 school year.
- Offered in-person "learning centers" (not classes) monitored by substitute teachers for students to study with others. Advance sign-up was required for students who wished to attend.

**OAKLAND TECH HIGH SCHOOL**
- Continued with online learning throughout the 2020-21 school year.
- Created voluntary, in-person "learning pods" for students significantly impacted by the pandemic and online learning.
- Lab kits provided to students to perform lab experiments from their homes.
Before the stay-at-home orders took effect on March 13, 2020, Biotech Partners was already engaged in contingency planning with school and industry partners to understand and prepare for the looming global health and socio-economic crisis. Researchers from Rockman et al (REA) were there to capture the unique challenges and document emerging solutions. As the COVID-19 pandemic unfolded, the majority of past internship sites cancelled their 2020 participation, putting the student internships in jeopardy. Facing the danger of cancelled summer learning experiences, Biotech Partners rapidly shifted to re-engineer the internship program for remote work. By collaborating with new and longstanding industry partners, students were able to participate in virtual and in-person internships, primarily connected to a research, laboratory or pharmaceutical manufacturing setting.

Pivoting to virtual internships ensured that students had the opportunity to work as a young professional in a STEM industry workplace where they could apply their bioscience, biotechnology, and professional career skills developed in Biotech Academy. Biotech Partners not only sustained its programming. It expanded to launch a new data science/coding internship track to teach the fundamentals of data sciences, Python coding, and bioinformatics, followed by mentored projects exploring data related to cancer research, immunology or COVID-19 in real-time. In 2021, Biotech Partners further developed the data science track, along with other opportunities for virtual or in-person positions.

To learn more about the research project and results, please contact Dr. Alex Gurn (email: alex@rockman.com).
BIOTECH ACADEMY CLASS OF 2021

ONTO A NEW JOURNEY
where our graduates are headed next

We are excited to continue our work with the select seniors who will be joining us in our Bioscience Career Institute program while they pursue their degree at their respective community college campuses.

100% GRADUATION RATE FOR BIOTECH ACADEMY SENIORS
In January, we launched a new online after school program for current Biotech Academy students interested in gaining more learning opportunities within data science.

"The program is a competitive & innovative program that integrates the growing fields of classic computing, data science, and bioinformatics to challenge young minds and produce the future of science."

-Laina Magaya, MS
Biotech Consultant

**CORE COMPETENCY**
- Out of High school computing/data/bioinformatics skillset
- Basic coding experience
- Application of computing/data/bioinformatics into Biotech
- How to organize data
- Work with Genetic/genomic data
- Python programing (Data Carpentry, CodeHS)

**ELECTIVES**
- Bioinformatics tools
- Spreadsheets
- Build an app
- Data mining, cleaning & refinery
- Database management
- Mathematical modeling
CONGRATULATIONS!

We have three graduating class members who are transferring to 4 year institutions in the Fall. Congratulations to all for finishing another successful year!

EASWAR KALYAN PEDDIBOINA
Transferring to: UC Davis
Major: Biochemistry & Molecular Biology

"For the past couple of years, I've had the wonderful opportunity of interning for the UC Berkeley DNA Sequencing Facility, as well as at Lawrence Berkeley National Laboratory working on the D.O.E funded ENIGMA project under my principal investigator Adam Deutschbauer. BCI was there helping through each and every step of finding and success in each and every one of my intense internships. BCI also played a huge part in my academic success through my time as a community college student. The values and mentors that BCI has helped me gain, I will never forget."

MIGUEL MONTANO
Transferring to: UC Santa Barbara
Major: Cell and Development Biology

"BCI was a very welcoming community to be apart of and has helped me develop various skills and professional connections that I never really thought were possible straight out of high school. Now being a Junior UCSB transfer I have an immense amount of gratitude for all the opportunities that opened up in my life after joining BCI. I am grateful for having the experience of working at the Isolation and Purification lab at Bayer Pharmaceuticals for 2 years, and the Gene Therapy lab this summer but also appreciate looking back and seeing how much I have grown as an individual. Thank you to everyone at Biotech Partners especially, Jennifer Hugenberger and Lynda Gayden, and my mentor Xiao-Yan Zhao for making my experience one I will always remember!"

ISABELLA MACHADO
Transferring to: San Francisco State University
Major: Microbiology

"BCI and my internships were each their own set of challenges. While at times frustrating or intimidating, I wouldn't have been able to learn as much as I did."

This Spring the BCI class has been busy completing online class credits and working at their Co-op internships with 4DMT, Bayer Pharmaceuticals, Lawrence Berkeley National Lab, the Joint BioEnergy Institute, and at a new position with the Joint Genome Institute. While learning in a remote environment has been challenging, many students were able to continue their position on site over the Spring. We continued to benefit from our new partnership with the Biotech Connection-Bay Area, with industry mentors who were able to provide workshops promoting STEM career ideas and skills.
For the first time ever, Biotech Partners participated in the National Science Foundation’s STEM for All Video Showcase. The free, week-long showcase featured more than 275 short videos from other NSF-funded projects depicting this year's theme: “COVID, Equity & Social Justice.”

Our presentation, "Internships for Underrepresented Students Amid the Pandemic," looked at the ways in which our program was able to "turn on a dime" in 2020, to ensure that our students were able to engage in biotech industry internships and opportunities.

You can view the video here: tinyurl.com/BPVid21
SAVE THE DATE

BRAVO! 2021
This year's virtual BRAVO! Presentation Exhibition and Celebration will be held on SUNDAY, AUGUST 14TH
More details to come.

CALLING ALL BIOTECH PARTNERS (FORMERLY BBEI) ALUMNI SURVEY RESPONSE NEEDED

PLEASE VISIT TINYURL.COM/BPALUM
2021 SUMMER INTERNSHIPS
Here are the sites that our students will be interning at this summer!

REMOTE:
- Bayer
- JBEI
- Biomarin
- Teselagen Biotechnology
- UCSF Center for Science Education and Outreach
- The Whiteman Laboratory
- EBMUD
- KP Launch

IN-PERSON:
- Data Carpentry
- CHORI
- Children's Hospital Oakland Research Institute
- Agenus
Your contributions are needed more than ever. Donating today will help transform our students to become the next generation of scientists and STEM professionals of tomorrow.

YOUR SUPPORT IS ESSENTIAL

PLEASE VISIT TINYURL.COM/BPDONATE2021 TO DONATE.