

Good morning, my name is Dr. Todd Arnold. I am the Managing Director of the Mount Sinai Genetic Testing Laboratory in Branford, Connecticut. Our CAP accredited CLIA laboratory is a state of the art, high throughput nucleic acid sequencing facility. An extension of the Icahn Institute for Genomics and Multiscale Biology and the Department of Genetics and Genomics, we interact with a multitude of clients and collaborators both within and outside of Mount Sinai. Our team's charter is to generate massive amounts of DNA and RNA sequence information and perform detailed analyses providing researchers and clinicians with a better understanding of the genetics of cancer and inherited diseases enabling more accurate diagnoses, use of the most appropriate therapeutic regimens, and achieving optimal patient outcomes.

Our site got its start in mid-April 2014 by three former 454 Life Sciences employees who were recruited by Mount Sinai to establish and run a highly automated, high throughput sequencing facility. We are now over 45 strong with 94% of our employees being recruited from the state of Connecticut. Branford was selected as the site for the laboratory for a number of reasons: proximity to prominent institutions of higher education, history of biotechnology development in the area (NGS was developed and commercialized first by 454 Life Sciences), well-educated employee pool having the appropriate skill set, an easy commute to Manhattan. Our establishment in Connecticut was made easy by the terrific support from the State, specifically Commissioner Smith of the DECD, the EDCs of New Haven and Branford, first Selectman Cosgrove, and Representative Reed. We feel privileged to receive this outstanding level of support.

A critical component in sustaining a vigorous bioscience ecosystem is educating a strong STEM workforce and providing exciting career opportunities within Connecticut. I have been active since relocating to Connecticut from Massachusetts in 2000 in supporting multiple programs to sustain a highly competent bioscience workforce in the State. These include:

- Guidance for curriculum development and an advisory role to the University of Connecticut's Professional Science Master's Program in Applied Genomics.
- At the request of members of The Jackson Laboratory served on the advisory board of the Genomic Workforce Consortium an extension of the Health and Life Sciences Career Initiative.
- An industry partner and advisor for The Health and Life Sciences Career Initiative (HL-SCI). A federally funded program designed to prepare workers to take on new health and life sciences jobs with a particular focus in recruitment on veterans, TAA-eligible workers (those displaced by foreign trade), dislocated, unemployed and under-employed workers. Through a consortium of five community colleges (Norwalk, Capital, Gateway, Manchester and Middlesex), two state universities (Charter Oak State College and Eastern Connecticut State University), and local investment boards, new programs are being developed and existing programs are being revised with input from industry to ensure that the skills needed to succeed in these new jobs are being taught at the colleges. The consortium colleges provide certifications, industry-recognized credentials, and certificate and associate degree training in a host of new areas. As part of the HL-SCI, I led the design and implementation of several rigorous modules (boosters) specifically designed to provide supplemental instruction in key course concepts.
- Member of the Bioscience Academic and Career Pathway (Bio-Path) which is an initiative that "aims to sustain the New Haven region as a leader in the bioscience industry by generating a pipeline of highly skilled and well-educated citizens and workers. Bio-Path will provide leadership for bioscience education, research, and public advocacy for the Greater New Haven region through educational ladders, innovative programs and varied support services."
- It's important that employers and educators maintain an effective partnership to ensure that our State continues to produce a highly qualified, diverse workforce to fill the jobs available today

and that we are ready to meet the opportunities that become available as we establish and grow Connecticut's precision medicine and personalized health cluster.

When I had the opportunity to join the CHDC I jumped at the chance. Where else would one be able to meet with key decision makers from hospital systems, insurers, researchers in precision medicine, informatics, and public policy to discuss candidly how to leverage the diversity of our state, the wealth of information contained in our residents' health records, to provide an opportunity to make an impact on their health and healthcare decisions while establishing an economic growth engine for Connecticut. What a great forum to advocate for collaboration among industries that are truly interdependent but infrequently meet to discuss how to work together. Despite there being considerable competition among players in these business areas, members of the CHDC are aligning to collaborate to bring precision medicine's promise of better health to the citizens of Connecticut. We are proud of our accomplishments thus far and thank Senator Hartley, Joe McGee, and Polly Painter for their outstanding facilitation skills; however, we recognize there is much work ahead of us to deliver on what we set out to do. We now have a coherent pilot project ready for refinement and execution. We will develop a decision tree based on the anticipated outcome from the data we collect from the proposal. We are confident that, regardless of the outcome of this work, we are better poised to establish and sustain a more robust collaborative bioscience ecosystem in Connecticut that will have positive impact for our State's economy and fellow citizens' health.