

FOR THE RECORD

New York City Economic Development Corporation

New York City Council Hearing on NYC Biotech Tax Credit

Lenzie Harcum, Director, Healthcare & Life Sciences Desk

October 22, 2015

Good afternoon, my name is Lenzie Harcum and I am the Director of the Healthcare and Life Sciences Desks at the New York City Economic Development Corporation (NYCEDC). I am pleased to testify before you at the NYC Biotech Tax Credit Hearing to discuss the program, and to give you an overview of the growing Life Sciences and Biotechnology ecosystem in New York City.

Our overarching goal at NYCEDC is to strengthen and diversify the City's economy, ensuring that New York City remains a global center of inclusive innovation and commercial activity. We are also charged with cultivating a strong and diversified economy that is necessary for the City to be competitive and accessible well into the future.

Cultivating scientific research, especially cutting-edge research that can potentially cure diseases, is not only good for the future of healthcare—it is also good for NYC's economy. That is why encouraging science, biotech, and life sciences innovation is a major part of our effort to transform our economy.

The Biotechnology Industry

Let me start by giving you a general overview of the biotechnology industry. In 2013, nationwide employment in the biotechnology industry reached nearly 1.4 million, 12.6% higher than in 2003, an increase that is 4 times the rate of job growth in the overall private sector. These jobs have seen significant wage growth over the past

decade, as well as a balanced distribution of jobs across income levels.

Key drivers for growth in the industry include continuing innovation in therapeutics, medical devices, diagnostics and industrial research and development (R&D) technologies. Many of these products are the result of major scientific advances funded by the federal government, in areas like genomics, stem cell research, tissue engineering, gene therapy, and computational drug design, among others.

These national trends point to tremendous potential for the biotech sector as an area of significant economic growth in New York City. New York is home to 9 world-class academic medical centers that regularly receive some of the highest levels of funding, more than \$1.4 billion every year, from the National Institutes of Health. We are also home to leading pharmaceutical companies like Pfizer, Bristol-Meyers Squibb, Forrest Labs, and Roche. As a City, we have one of the country's largest healthcare systems, as well as a robust and growing venture capital sector.

All of this makes New York City uniquely positioned to build a top-tier innovation ecosystem for technology commercialization and early-stage biotech R&D. Supported by a suite of initiatives launched by NYCEDC, the City has been observing a strong growth trajectory in biotech in recent years. According to the New York State Department of Labor, there were 13,743 life sciences jobs in New York City in 2013, an increase of 15% from 2009 to 2013.

To give you a sense of the important contributions of the Life Sciences and Biotechnology sectors, imagine the important roles that X-Rays and Tylenol play in our daily lives. These and other innovations revolutionized healthcare, enabling us to diagnose and treat illnesses and live healthier lives. Along with diagnostics technologies like diabetes tests, research facilities, and other medical devices and therapeutics (medicines), they make up the vast industry known as Life Sciences. Innovations in this

sector are not just helpful for a healthy, safe, and stable workforce, but vital for a sustainable economy.

The emerging industry still has room to grow. Continued growth will rely on the high-risk, high-reward investments of small companies conducting cutting-edge research in close proximity to the local research institutions where they are founded. For a long time, we struggled to retain the 20-30 new companies that are started each year at NYC's academic medical centers, many of which left the City due to a dearth of early stage funding opportunities and of wet lab space to conduct advanced research for product development. NYCEDC has a number of programs that focus on filling the funding and real estate gaps in the industry.

NYCEDC Funding Initiatives

I will begin with our efforts on the funding side. To help launch new life science and health tech companies, we created the **Entrepreneurship Lab NYC**, a 6-month training and mentorship program for aspiring entrepreneurs in New York City. The Lab provides extensive support, including a mini MBA program, coaching and mentorship components, to graduate students of science and to post-doctorate and early career researchers interested in forming new companies. E-Lab NYC will soon launch for the fourth year.

To assist early stage companies with funding, we launched SBIR Impact, which is designed to enhance the competitiveness of Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) proposals in New York City-based life sciences and healthcare technology companies. The program offers introductory workshops and webinars, as well as 20 hours of one-on-one assistance for

each of 20 companies that are preparing proposals for federally SBIR/STTR Programs, federal sources of \$2.5 billion for small business R&D funding.

And in March of this year, we announced our \$150 million Early-Stage Life Sciences Funding Initiative. The fund began with a \$10 million City investment, made by NYCEDC, along with an additional \$40 million from our private sector partners Celgene, GE Ventures, and Eli Lilly. That was matched by another \$100 million in Venture Capital funding, for a total of \$90 million managed by Flagship for therapeutics, and another \$60 million managed by Arch for non-therapeutics. The Early Stage Life Sciences Funding Initiative will be used to create new biotech companies that will address chronic disease while building the commercial biotech industry in the City, setting the stage for the continued expansion of early-stage research and development right here in NYC and strengthening the City's position as a world-class center of science and groundbreaking research.

NYCEDC Life Sciences Real Estate Development Efforts

And to help fill the particular real estate needs of the biotech sector, we have partnered with the private sector to create what is expected to be almost two million square feet of state of the art commercial wet lab space. For early stage companies, we are launching a network of commercial incubators, starting with Harlem Biospace, which provides affordable wet lab space for biotech start-ups. This is the first of a network of incubators for young companies that we will be announcing in the coming months. Harlem BioSpace was created in partnership with Dr. Sam Sia of Columbia University.

Our biotech real estate strategy also includes another 500,000 square feet of wet lab space at BioBAT, a partnership with SUNY Downstate hosted at Sunset Park's Brooklyn Army Terminal, as well as what will be more than 1.1 million square feet in the

towers of the Alexandria Center for Life Science along the East River. We are also currently undergoing a Life Sciences Infrastructure Study to assess the 10-year real estate needs of the industry and identify assets throughout the City that can provide the kinds of space that it requires.

Conclusion

To share with you one small success story of the many we have helped seed, our E-Lab NYC program graduated the founder of Suneris, which developed a product called VETIGEL. VETIGEL is a plant-based gel that stops severe bleeding in less than twelve seconds. Already approved for veterinary markets, VETIGEL is currently undergoing FDA approval for use on humans, which it is expected to receive in early 2016. With an ability to activate the natural blood clotting process in order to quickly seal wounds, VEGITEL, a New York-nurtured bioscience product, is applicable to emergency medical services, burn treatment, war zones, and high-intensity surgery, and it has the potential to revolutionize emergency trauma care. Joe Landolina, VETIGEL's 22-year old creator, told us that "Working in New York City, everything is at an arm's reach: talent acquisition at the entry level is tremendously easy. We get 500 applications for every intern position, partly because people want an opportunity to spend time in New York. Even our mid-level talent includes people that are based in New York and would hate to leave the city."

NYCEDC is committed to making sure New York City remains a great place to start and grow a business. Through our life science initiatives, as well as NYCEDC's other small business and economic diversification programs, we're taking important steps to achieve this goal. Incubators and funding and mentorship programs provide affordable space, innovative programming, and outstanding networking opportunities for

new business owners, and new wet lab space will help to ensure that the science that is discovered in New York City can be *commercialized* in New York City. We look forward to continuing to work with the City Council and our other partners in government to grow this and other programs.



PARTNERSHIP
for New York City

TESTIMONY BEFORE THE FINANCE COMMITTEE OF
THE NEW YORK CITY COUNCIL

INT. 956 - EXTENDING THE CITY'S BIOTECHNOLOGY TAX CREDIT

OCTOBER 22, 2015

MARIA GOTSCH
PRESIDENT AND CEO

THE PARTNERSHIP FUND FOR NEW YORK CITY

The Partnership for New York City represents the city's business leadership and its largest private sector employers. We work together with government, labor and the nonprofit sector to promote economic growth and maintain the city's position as a global center for commerce and innovation. The Partnership's investment arm, the Partnership Fund for New York City, was established in 1996 to directly contribute to job creation, spur new business creation and expand opportunities to participate in the economy for all of the city's residents and neighborhoods. I am the Fund's President and CEO.

Over the past decade, one of our strategic focus areas has been catalyzing development of the city's science-based industries such as biotechnology and engineering. The objective was to spawn a steady stream of new business ventures that could generate good-paying jobs throughout the five boroughs. These industries are exploding and we want them here.

New York City is an ideal place to become the nation's hub for the biotech industry. It has a thriving environment made up of one of the highest concentrations of academic medical research institutions in the country, attracting more than \$1.9 billion in annual National Institutes of Health (NIH) funding. Yet obstacles to starting and growing biotech companies do exist here and overcoming them requires collaborative and thoughtful strategies. The business community and research institutions have been working with the City to leverage its existing assets and create new partnerships to meet some of these challenges.

Starting in 2001, the Fund and the City focused on raising visibility around the depth and strength of its biomedical research with the goal of attracting a private developer to build critically-needed lab space. As a result of these efforts, life sciences employment in NYC has grown 26% over the last decade (from 14,783 in 2004 to 18,577 in 2014). The City and State ultimately provided incentives for development of the first commercial science park, the Alexandria Center, on the City-owned Bellevue Hospital campus. Alexandria now houses research labs and offices of Pfizer, Eli Lilly, and Roche Pharmaceuticals and includes both conference and wet lab facilities. The City and State have also provided incentives to create incubator space at SUNY Downstate that is targeted at early stage biotech companies and to create wet lab space at BioBAT in the Brooklyn Army Terminal.

The Partnership and its Fund continue to lead efforts to expand the bioscience industry. In 2009, the Fund launched a proof-of-concept funding program, the BioAccelerate NYC Prize, which provides funding to medical researchers and pairs them with an entrepreneur mentor. In another public-private venture, the New York City Council and the Fund launched NYC Tech Connect, focused on building a stronger entrepreneurial ecosystem in the hard sciences. The purpose of this initiative was to connect biotech entrepreneurs with funding, mentorship, peer networks, corporate partners and a variety of support services to maximize opportunities for commercialization and job growth. We ran programs reaching hundreds of entrepreneurial engineers and scientists and worked one-on-one with more than 80 aspiring entrepreneurs.

These initiatives show what can be accomplished through public-private collaboration, but there is more to be done. The businesses fueling the innovation economy are small startups that focus all of their energy and resources on growth and success. Unfortunately, a recent survey of over 6,000 small business owners nationwide ranked New York City among the least friendly places to start a business. New York is an expensive place to live and do business, with a relatively harsh regulatory and litigation environment. These issues are magnified among biotech startups, which require significant upfront capital expenses for lab space as well as fees to file patents. Further, these businesses often require many years before they generate revenues given the time it takes to move a medical drug through the approval process.

The City's biotechnology tax credit has been integral to helping these companies remain in NYC -- instead of moving to lower cost jurisdictions -- and it must be renewed in order to continue the industry's growth here. This tax credit sends an important message to companies that we want them here, particularly when other states are offering similar incentives. And the benefits emanating from this modest public investment are immense, as these companies use the savings to leverage significant private funding that ultimately goes back into the local economy. We urge the City Council to pass Int. 956. Thank you.

**New York City Counsel – Finance Division
Hearing on Renewed Biotax Credit
October 22, 2015**

Testimony of
Dr. Piraye Yurttas Beim, PhD
Founder and CEO, Celmatix Inc.

Celmatix is a personalized medicine company focused on fertility and women's health. Our products leverage big data and genomics to help couples who are struggling to conceive a child understand what their personal clinical metrics and DNA signatures say about their fertility potential. In the coming years, we will bring the same personalized medicine paradigms upstream to women earlier in their lives so that they can proactively manage their fertility from a young age. Most women currently make life-defining decisions about career and family based on their age. Our products will empower them make these decisions based on their personal biology. Celmatix is proud to be a leader, not only in the field of reproductive medicine, but also in biotechnology here in New York City.

I am asked by journalists all the time "How did you build a successful biotech company despite being in New York City?" And in the early days of Celmatix in 2009 and 2010, people asked why I would try to build a biotech company here when, at the time, there were more government incentive programs across the river in New Jersey or a few hours away in Long Island or Pennsylvania. The answer I gave then and give now is that Celmatix would and has thrived because of New York City, not despite being in New York City.

New York is home to some of the world's top medical and academic institutions, which is what originally attracted me here as a PhD student at Weill Cornell Medical College. As a biotech company in New York City, we have been able to attract talent from these and other amazing institutions inside and around New York including Cold Spring Harbor Labs in Long Island, and Rutgers and Princeton in New Jersey. Celmatix has provided a home for talented scientists to stay and continue to flourish in their careers here in New York, instead of having to go to more traditional Biotech hubs like Boston, San Diego, or San Francisco.

The realities of New York City have also challenged us to rethink the biotech model. Classic biotech models are capital intensive, high risk, and sometimes takes decades to produce a product, much less a profit. Celmatix has been trailblazing what we call Biotech 2.0, a leaner approach to building and scaling a biotech company where we leverage shared resources such as co-working incubator spaces, cloud computing, and outsource capital intensive aspects of our work such as tissue cryo-banking and DNA sequencing as much as we can. Now that we have reached a stage of rapid growth and are bringing a laboratory developed test to market, we have had to take over dedicated office space, we are now headquartered on Wall Street, and build out our own lab space, we have opened a clinical laboratory in Brooklyn. But, the challenges of inventing a leaner approach to biotech have allowed us to build a stronger, more resilient company.

With that said, there is only so lean, even a Biotech 2.0, company can be. I am here today to share with you our gratitude for the New York City BioTech Tax Credit, which provided us with important liquidity in

the early days of our company that we were able to reinvest back into the City in the form of jobs growth. Without this and other similar support programs that made it possible for us make New York City our home, it is much less likely that Celmatix would have been able to succeed. In the difficult early years of the company, when, as a founder, I had no income and no permanent home, I was encouraged by the New York City Biosciences Initiative. To me, it was proof that New York City was committed to creating a sustainable biotechnology ecosystem. Tax incentives and initiatives like this can help tip the balance for early stage companies that are struggling to gain traction. They certainly did for Celmatix.

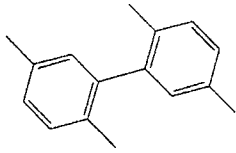
When I founded the company, the fledgling biotech ecosystem that we have in New York today did not yet exist and I had to go outside of the City to find investors and training programs designed to help scientists who were making the transition from academia to business. Today as the local ecosystem has grown, and thanks to economic develop programs now in place, early stage biotechnology companies no longer need to leave New York to seed raise capital or learn the tools to launch their company.

In the early days of Celmatix, nearby states such as New Jersey and Pennsylvania along with other New York municipalities located in Westchester or Long Island were offering different incentive programs for us to leave the city. It was tempting to consider those opportunities, but one of the things that made a meaningful impact when we were just in the seed funding days were the dollars we recouped from the BioTech Tax Credit.

Today, Celmatix has been a steady creator of high value jobs. Since our humble beginnings in a living room in Tribeca in 2009, we now employ over 40 full time employees in New York City. We are currently leasing 10,000 square feet of office space on Wall Street and took over lab space in an otherwise distressed part of Brooklyn, where we are opening a state-of-the-art next generation sequencing, clinical laboratory. A number of Celmatix employees have relocated from out of state or from other New York State municipalities and now live in New York City. This year alone Celmatix employees will remit over \$75,000 in New York City income taxes and over \$150,000 in New York State income taxes.

The BioTech Tax credit is just one important part of the support environment which has helped make it possible for companies like Celmatix to call New York City home. We are encouraged by the emergence of the biotech ecosystem here in New York and are proud to have been a part of this important growth story.

Thank you for your time.



AVATAR MEDICAL, LLC

Avatar Medical, LLC is a biotech company operating in the Brooklyn Army Terminal within the International AIDS Vaccine Initiative's facilities. Avatar is developing and commercializing a technology that 'staples' protein immunogens in their most effective conformation, and thereby enhances their performance. Applying this technology, Avatar is designing and testing vaccine immunogens for HIV and RSV (a pediatric indication), and a universal flu vaccine.

Avatar first received funding from the Gates Foundation, and then leveraged these funds into SBIR funding for all three programs: HIV, universal flu, and RSV. In total, Avatar has brought in more than \$6MM in grants and credits.

Avatar's technology is a manufacturing technology. Therefore, with proof of principle for the technology, the company will also be in possession of (a) proprietary vaccine candidate(s) that will be of significant value: it is estimated that an RSV vaccine will generate ~\$2BN in annual sales, and a universal flu vaccine would generate at least the same; at this point it is difficult to value an HIV vaccine, as it will depend on many factors, including the level of protection it provides.

Avatar is collaborating with section chiefs at the NIH in RSV and flu, which significantly leverages the funding we receive from the NIH and further enhances visibility of our results. In HIV, we are collaborating with leading scientists/groups at the NIH, Harvard, Duke, and Rutgers University.

Avatar leveraged the NYS QETC and NYC Biotech tax credits in 2010, 2011, and 2012, as well as the 2010 federal QTDP, which was absolutely crucial to our survival. As an entirely grant funded startup, the NYC biotech tax credit refunded 9% of our research expenditures, or between \$100-150K additional funding each year. Since, with the exception of the fee, our grants cannot be used to pay for certain unallowable expenses (e.g. patent filings), we use our biotech tax credit to pay for such expenses - without which it would not be possible to build a technology-based company.

Filing for early and broad IP protection for the programs is essential to building a company. Avatar has developed a strong and broad portfolio of issued and pending patents, which will enable us securely to partner our assets. Our RSV immunogen is shipping to the NIH today for the first animal experiment, and some of the largest global pharmaceutical companies have expressed interest in our program once we have molecular and early animal proof of principle.

Another way to look at the biotech tax credit is that it pays for two technicians' salaries, effectively allowing us to increase our research headcount from 4 to 6.

It is almost impossible for me to overstate how crucial the biotech tax credit was for Avatar's development.

Finance Committee Hearing: Renewal of Biotech Tax Credit

10.21.15

Written testimony of Kate Rochlin

My name is Kate Rochlin and I am a Co-Founder and the Chief Scientific Officer of Immunovent, a NYC based early-stage bioventure that is focused on developing and commercializing cutting-edge technologies for allergy diagnosis. Immunovent has benefited from the biotech tax credit and I am here to lend my strong support for the continuation of this program, such that it can continue supporting early-stage companies and promote entrepreneurial life science ventures.

Immunovent was founded in 2013 based on technology developed at Weill Cornell University in NYC. The initial work was patented by Weill Cornell and subsequently licensed by Immunovent. The company is currently developing next-generation, needle-free allergy diagnostics, specifically the Local Antibody Mucosal Brush Test (LAMB-Dx), a platform technology that allows for accurate detection and diagnosis of both respiratory and food allergies. LAMB-Dx diagnoses allergies using a small sample of cells that are painlessly collected with a soft brush from the inside of the nose or the mouth. Because LAMB-Dx collects cells close to the source of the allergy, the accuracy of the diagnostic is improved, and it is capable of diagnosing many allergic patients who test negative by traditional blood or skin testing. The output of tests can be used to guide targeted patient treatments, such as immunotherapy.

As a Founder and Chief Scientific Officer of Immunovent, I have seen first hand the many challenges facing early-stage companies in NYC such as finding affordable office and laboratory space as well as the high cost of doing business. As a consequence, Immunovent, like so many early-stage companies, considered options outside the city to base our offices. Our founders, however, were committed to the city where we work, live, and raise our families and the advent of programs such as the biotech tax credit made it feasible to remain in NYC and successfully run our company.

This past year the tax credit allowed Immunovent to receive a substantial refund, which we were able to put back into the company, stretching our investors' money further and allowing us to move our plans forward more rapidly. Specifically, Immunovent used the majority of our tax credit to hire a new employee to oversee medical affairs. Their responsibilities included physician outreach to create partnerships for upcoming clinical trials, patient outreach within the allergy community to develop a more comprehensive understanding of their experience with existing diagnostics, and assistance in grant writing for non-dilutive funding. Therefore, the biotech tax credit both advanced the company's goals and efficiency and created jobs in NYC.

I also know from firsthand experience that Immunovent is only one of many biotech start-ups that benefited greatly from the tax credit. I also work as a senior scientific

advisor to Allovate, an allergy therapeutic company, which received the tax credit. Allovate was able to put their tax credit toward completion of their year-long clinical trial as well as additional studies in animal models. The data from these studies will be crucial in getting their product to market and providing data to physicians interested in using their products.

I firmly believe that the availability of the biotech tax credit provides a strong incentive for companies to remain in NYC rather than relocate to less expensive areas outside the city. Over my years in the biotech industry in NYC, I have seen how the biotech tax credit, in conjunction with a number of other NYC initiatives, such as the Harlem Biospace, the Entrepreneurship Lab and SBIR impact, has been instrumental in forging a strong community of early-stage biotech and life science ventures in NYC. The biotech tax credit has been essential in helping to transform NYC into one of the fastest growing cities for biotech and creating an environment conducive to early-stage companies.

It is my sincere hope that this program will be extended so that we can continue to grow NYC biotech at the earliest stages and then retain these companies in NYC, creating more exciting innovations in technology, jobs in the industry, and making NYC truly a hub of biotech and bioscience. Some of the best science in the country is being done at research institutes in NYC and a record number of companies have been spun out of these institutions in the last several years. The best way to incentivize these companies to remain in NYC is through programs such as the tax credit and the city's continued commitment to the building of an entrepreneurial environment in the biotech arena. In closing, I want to thank the committee for their attention to my testimony regarding this very important program. I believe the continuation of the biotech tax credit would be extremely beneficial in the continued development and maintenance of the vibrant early-stage life sciences community that we strived so hard to create in NYC.

Extending the Biotechnology Credit

Testimony of

Jeffrey Hwang

IRX Therapeutics, Inc.

October 22, 2015

Good morning. My name is Jeffrey Hwang and I am the President & COO of IRX Therapeutics. By way of background, I was born in Manhattan, raised in the Bronx, live currently in Manhattan and work in Brooklyn.

IRX Therapeutics is developing a novel immunotherapy for the treatment of certain cancer patients. It has been preliminary clinical trials in humans and we are beginning a 200 patient *INSPIRE* Phase 2b trial with the goal of demonstrating in a large number of cancer patients that is can potentially extend lives meaningfully and be safe with few side effects.

We are based in New York after having initially started in Florida. Since 2011, we have focused our people and facilities in Brooklyn and Manhattan after migrating from Long Island. One important factor at the time was the availability of the NYC Biotechnology Credit. The other important factor was availability of pre-built labs.

We currently employ 18 people in NYC and expect to grow that to as many as 60 people in the next five years. As a result, we will be taking new space at the new BioBAT development in Sunset Park. We will be the first company to move into the newly-developed space. One very important reason to do so is for us to support the growth of biotechnology in NYC.

For tax years 2011-2013, we were the recipients of tax credits from the NYC Biotechnology Credit program. They provided significant cash proceeds in 2012-2014 at a critical time for our Company. As you know, the program is designed to reimburse up to 9% of the amounts spent on R&D related expenditures. Developing a new biotechnology requires significant amounts of capital to sustain activities as there normally are not any sales dollars. By any measure, 9% is a meaningful amount.

Here are a number of examples of how the tax credit made a meaningful impact:

- A. In 2010, when we decided to leave Long Island, the program attracted us to NYC. We moved into the incubator space at SUNY Downstate.
- B. In 2011, we were solicited to leave NYC for Tampa, FL, but decided to stay.
- C. In 2012, the refund allowed us to maintain staff levels when cuts were imminent.
- D. In 2013, the refund actually funded the May payroll when other funds were short.
- E. In 2014, the refund allowed us to add 3 technicians to the payroll.

It was critical for the development of biotechnology in NYC to have access to this and other NYC and NYS programs. We are currently participating in the StartUp NY program. While we have benefited from three years of the Biotechnology Credit program, we know it is very attractive to the next wave of biotechnology companies coming behind us. Every incentive dollar keeps these emerging companies in NYC, grows good paying jobs, and helps NYC remain vibrant and attractive in the future.

Thank you for your continued assistance.



October 22, 2015

Biotechnology Credit Testimony

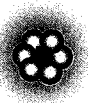
Company Overview - Oligomerix is an early-stage biopharmaceutical company founded in November 2006 with the primary goal of developing a proprietary platform technology for drug discovery and biomarker development for Alzheimer's disease (AD), and related neurodegenerative disorders by targeting toxic tau oligomers. During almost 9 years of operations, the Company has advanced its technologies through the use of its equity investment (seed through Series B financing), and its grant awards from NIH and the Alzheimer's Drug Discovery Foundation (ADDF). The Company has also been a recipient of tax credits from New York State and New York City that it has used to further its research and development through hiring and retaining new employees.

Tax Credit Benefits for NYC:

- Renewing the biotech tax credit will strengthen and support the outstanding research and medical facilities in NYC.
- It will help create new jobs and increase tax revenue.
- It will enhance its highly-educated workforce and talented people in the city and support city's reputation as a center of cutting-edge technology.
- Biotech tax credit will promote growth in new industries.
- All of the above will help to ensure NYC's place at the forefront of the biotech field now and well into the future.

Tax Credit Benefits for Oligomerix and other recipient companies:

- Tax credits give companies the opportunity to accelerate their commercialization efforts by taking advantage of the financial and human resources that exist in this economy.
- The tax credits help give companies like Oligomerix the opportunity to attract and hire talented employees.
- Tax credits help companies like Oligomerix to stay in NYC while dealing with costly business expenses which are part of doing business in the city.
- In addition, this benefits the investors in companies like Oligomerix as the additional retained capital gives longer runway to achieve commercial success.
- Companies that are commercially successful are able to continue to grow and that will provide real benefits to all of the residents in NYC as many different skill levels are hired and retained by companies like Oligomerix when they are successful.
- All of the above can help a company to be more attractive to new strategic partners which will open further advantages for research strategies and company's efforts to cure AD.



OLIGOMERIX, Inc.

Background and Significance of Alzheimer's disease Drug Discovery Program - There are no FDA approved disease-modifying drugs for Alzheimer's disease (AD) even though the prevalence of this neurodegenerative disorder and its associated costs are growing along with an aging population. AD is the most costly disease in the US with a financial burden of over \$226 billion annually in direct costs that are estimated to increase to \$1 trillion by 2050 (Alzheimer's Association, AD Facts and Figures 2015). There is an urgent unmet need for alternative approaches for the development of therapeutics for AD as all large completed late-stage phase 3 drug development programs based on the amyloid hypothesis have failed to meet their clinical endpoints.

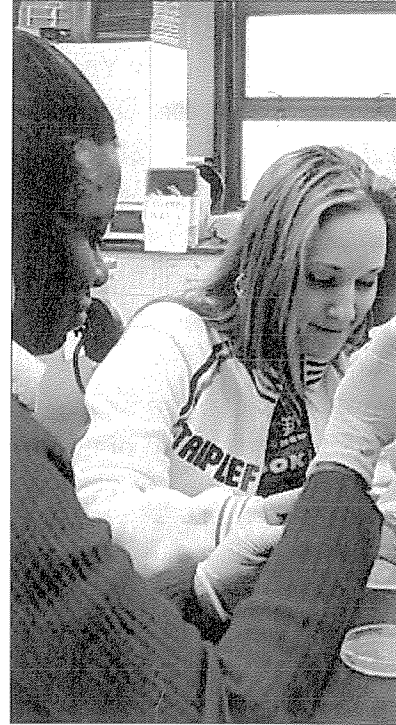
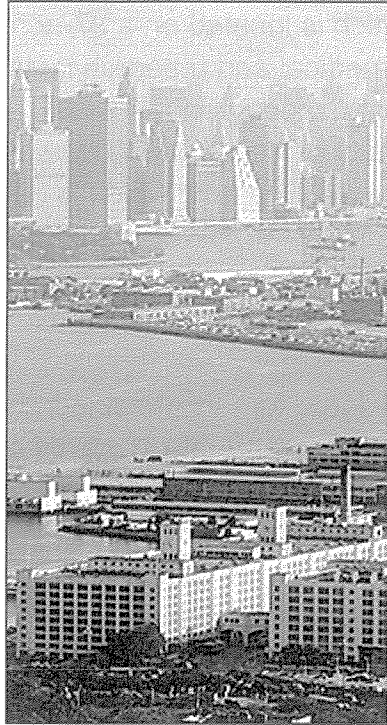
Societal benefits of developing new AD Therapeutics - Disease-modifying drugs that change the clinical course and delay symptomatic progression could reduce the economic burden by multiples of tens of billions of dollars per year if the onset of AD is delayed even a few years.

Summary - Oligomerix has been the recipient of tax credits from the City of New York for three years of its operational history. I am personally grateful that NYC implemented this program and it has been a crucial ingredient to keeping the company both operational and in allowing for its expansion. I fully support this program and would be happy to further elaborate any of the points presented in my testimony if it is of benefit to the City Council for their decision regarding renewal. I thank the City Council for this opportunity to testify and also the Economic Development Corporation, and in particular Lenzie Harcum for all of his help and advice during these important early stage formative years. I look to the future and sincerely hope that we will be the next truly successful biotech company in NYC.

Sincerely,

James G. Moe, Ph.D., MBA
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Support for the Extension of the Biotechnology Tax Credit



Testimony of Eva Cramer, Ph.D.
President of Downstate Technology Center, Inc.
President of BioBAT, Inc.
Vice President for Biotechnology and Scientific Affairs
State University of New York Downstate Medical Center
Before the City Council Committee on Finance on October 22, 2015

Good morning members of the City Council Committee on Finance, and thank you for inviting me to speak to you. My name is Dr. Eva Cramer and I am the Vice President for Biotechnology and Scientific Affairs at the State University of New York (SUNY) Downstate Medical Center. I am also the President of two not-for-profit organizations, the Downstate Technology Center, Inc. and BioBAT, Inc., which are working to foster the growth of the Biotechnology industry in NYC.

Downstate Technology Center oversees the development and management of the 50,000 sq. ft. Downstate Biotechnology Incubator. The Biotech Incubator is home to 20 companies. The facility provides early-stage tenants modular office/wet laboratory space with access to a wide range of Downstate resources, including a medical/scientific library, specialized research facilities and the ability to work with our scientists, clinicians and students to advance their discoveries and perform clinical trials.

BioBAT at the Brooklyn Army Terminal is for Incubator graduates and for more mature local, national and international companies who need space for expansion and manufacturing. The complex, which is located on a 97-acre harbor-front campus, is accessible to all New York City medical and research institutions. Working with the New York City Economic Development Corporation (NYCEDC) and the Research Foundation for the State University of New York, Downstate Medical Center is developing 524,000 sq. ft. in phases. Phase 1, which is 38,000 sq. ft. is occupied by the International AIDS Vaccine Initiative (IAVI), Avatar and Modern Meadow. Phase 2, which is 85,000 sq. ft., is now leasing space. There is significant interest in this space and IRX Therapeutics, which is currently at the Incubator, will be moving into Phase 2.

To help develop the skilled labor force for this growing industry, we have launched job-training programs in biotechnology for graduate students at Downstate and, in collaboration with Hunter College of CUNY, for undergraduates. The undergraduate program for biotechnology technicians, which has been very well received by students and employers, has found jobs for over 140 students. These programs align academic training with industry needs, encourage entrepreneurship and provide the biotech workforce for the future.

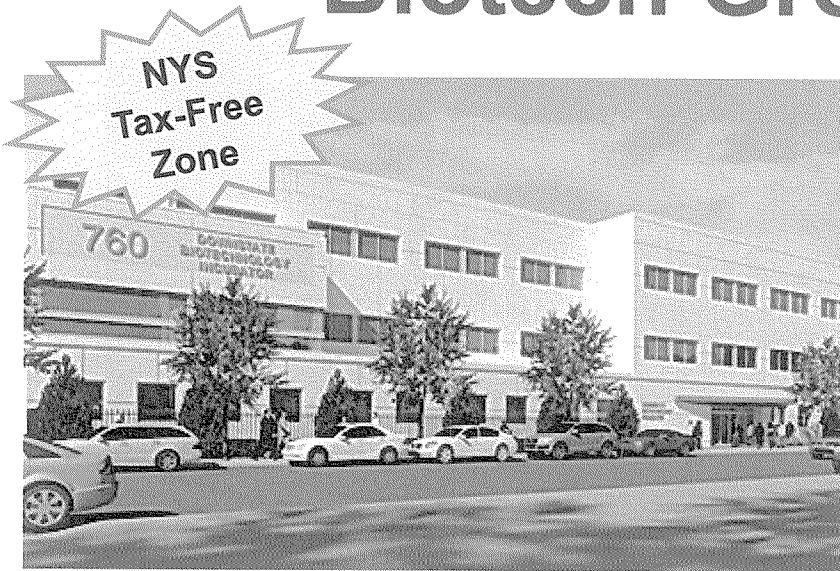
The development of affordable, state-of-the-art scientific space and job training programs for this critically important industry would not have been possible without the help and support from the Borough President, the City Council, and the State and the Federal Governments.

The availability of Incentive programs provided by the city and the state, such as the Biotechnology Tax Credit, are essential for the growth of these companies. Drug development involves pre-clinical research, clinical trials and regulatory approval to market the drug. This process takes years of hard work and costs hundreds of millions or billions of U.S. dollars. Most of our companies are at the early stage of this process, and desperately require these funds to enable them to continue their research and development. These incentives also make us competitive with other states and countries.

This industry is helping New York City achieve its potential as a world-class innovation center. Biotechnology companies diversify New York City's industrial base, provide high quality jobs, and develop medical innovations that dramatically transform people's lives.

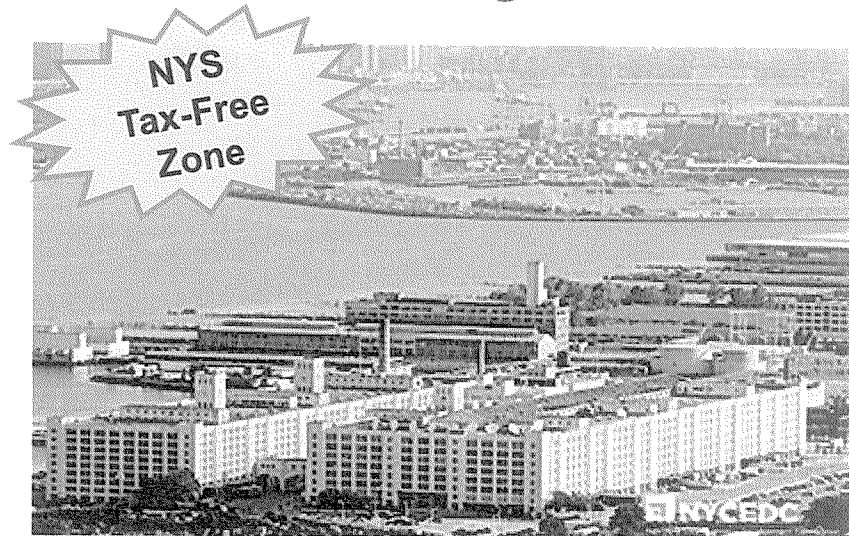
We thank you for your support for this initiative and look forward to working with you in the future.

Biotech Grows In Brooklyn



Downstate Biotech Incubator *(early-stage biotech/technology companies)*

- 50,000 sf – 20 tenants
 - Modular lab & office space
 - Core facility
 - Conference space
- Nursery program for smaller companies
 - Shared space & equipment
- Access to university resources
 - Scientists/clinicians/students
 - Medical/scientific library
 - Vivarium/research facilities/clinical trials
- Entrepreneurship & Workforce programs



BioBAT at the Brooklyn Army Terminal *(mature research & manufacturing biotech/tech companies)*

- Newly renovated state-of-the-art space
 - 524,000 sf - Phased Development
 - Phase 1 - 38,000 sf - International AIDS Vaccine Initiative (IAVI), Avatar & Modern Meadow
 - Phase 2 - 85,000 sf – Now Leasing
- Joint Venture – SUNY Downstate & NYCEDC
- Easy access to NYC research institutions
- Forming an East River Technology Corridor

Incentive Programs Essential to Attract and Support Companies

**THE COUNCIL
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. _____ Res. No. _____

in favor in opposition

Date: _____

(PLEASE PRINT)

Name: Kate Rochlin

Address: 414 W. 54th St Apt PHC

I represent: Immunovent

Address: 100 W. 93rd St 15F

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Date: 10/22/10

(PLEASE PRINT)

Name: James Moe

Address: 3960 Broadway, Suite 3400 New York, NY 10032

I represent: Oligomerix Inc.

Address: Same

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Name: MARIA GOTSCHE

Address: One Battery Park Plaza, NY, NY

I represent: Partnership for NYC

Address: Same

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Date: 10/22/15

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Name: Chris Marshall

Address: 426 7th Street, Brooklyn, 11215

I represent: Avatar Medical, LLC

Address: 140 58th Street, Brooklyn 11220

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Name: EVA Gomer

Address: 450 Clarkson Ave Brooklyn

I represent: Downtown Biotech Incubator & BIOBAI

Address: 760 Parkside Ave Brooklyn / 146 58th Brooklyn

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(PLEASE PRINT)

Name: Jeffrey Awang

Address: 140 W 57th St NY, NY

I represent: IRX Therapeutics

Address: _____

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in favor in opposition

Date: _____

(PLEASE PRINT)

Name: Piraye Bein

Address: 70 Little West St. PH13 NY NY 10004

I represent: Celmatix Inc

Address: 14 Wall St. Ste. 16D NY, NY 10005

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