

January 24, 2022

New York State Senate and Assembly

Re: Testimony for New York State Budget Hearing on Elementary and Secondary Education

Dear Senators and Assemblymembers of the State of New York,

Since I started BioBus here in New York in 2008, **over 260,000 students in New York State** have jumped aboard BioBus mobile labs, using research-grade microscopes alongside community scientists. After BioBus, students are ready to join and diversify the rapidly growing STEM workforce in New York. And young scientists in your district can join BioBus school programs right now! Our community scientists are offering in-person lab experiences as well as extensive online offerings. [At-home STEAM challenges](#), YouTube Student Town Halls, and more are always available at [biobus.org](#). And you can also see our programs in action in full color in our latest Stories of Impact video at [biobus.org/press](#).

Through high level, hands-on science education for K-12 and college students, BioBus brings our students into the scientific community that they have often been excluded from and prepares students for life-changing academic and career opportunities. We efficiently created remote versions of all of our programs in 2020, which proved to be highly effective and essential for students across New York. In the last year, BioBus transitioned from fully online programs to a mix of revamped in-person programs and remote options. BioBus community scientists consistently respond to requests from our students and the community with safe, engaging science programs. Tens of thousands of students participated in BioBus programs throughout the pandemic. With \$506,000 in FY22 operating support from New York State, the total from a budget line and member items, **we are spending more time on each student** and responding to the unique needs of students and schools who face ongoing pandemic challenges. **To help BioBus continue to be a trusted partner for schools, communities, and young scientists and expand programs, I respectfully request that you include \$700,000 in operating support for BioBus in the Senate One-House Budget. This funding will directly support 10,000 young scientists in your district and across New York State.**

In addition to the students BioBus serves in your districts and our request for your support, we are also proud of our additional partnership and many volunteers. BioBus receives essential support from private investments and dozens of volunteers. Our partnerships with Regeneron Pharmaceuticals, Columbia University, NYU, and the New School, among others, brings students from public schools into the same room (physical or Zoom) as the scientists doing research in their neighborhoods, and shows students that they have a place in the exciting scientific world right around them.



The need for proven science programs, like BioBus, is dramatic. BioBus community scientists repeatedly heard from teachers and families that BioBus programs were the only science experiences their students have received when schools went remote. Research-grade laboratory experiences led by masters- and PhD-level scientists give students of all races, ethnicities and genders, including those underrepresented in STEM careers, the opportunity to start their scientific path and excel. Our students are even preparing for and working to prevent the next pandemic, through the NYC Virus Hunters program, a collaboration with Mount Sinai and the Wild Bird Fund. The students just published their first pre-print and were featured in the New York Times (see both at biobus.org/virushunters).

BioBus is an innovative program founded in NYC in 2008, starting with a 1970s public transit bus converted into a research-grade science lab on wheels. Now with two mobile labs, BioBus visits a different school every day and currently offers customized programs with microscopes in school courtyards, auditoriums, community gardens and other open spaces or online. Community scientists lead classes in ecology, anatomy, adaptation, evolution, and cell biology, all using science relevant to students and their immediate surroundings. Using microscopes, students gain an immediate sense of how science relates to their lives. BioBus offers curriculum for all ages and student levels, even offering a Living Environment Regents prep course.

At BioBase stationary labs and onsite at schools and community centers, BioBus offers in-depth after school, weekend, and summer programs for students in upper elementary school and above. BioBus scientists lead students in project based scientific exploration. High school and college students can be paid Junior Scientist interns, gaining research science experience and mentoring younger students. These programs have also continued through the pandemic, with virtual summer camps and after school programs, video guides for science challenges that students complete on their own, and student town halls connecting students to guest scientists. BioBus Junior Scientist interns have continued their research, science communication, and mentoring, through remote and hybrid programs.

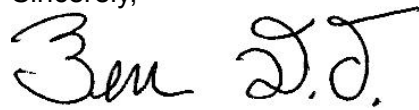
Previously, New York State generously provided capital funding for the BioBase Harlem and BioBus II. This doubled the impact of BioBus programs and laid the foundation to continue to grow to meet the needs of our students. Last year, the \$506,000 in total funding from New York State Senators and Assemblymembers ensured that BioBus could engage tens of thousands of students in science throughout the pandemic. Funds requested now will ensure BioBus can keep up with increasing costs across personnel and non-personnel expenses; provide the necessary increased staffing and resources for customized, safe in-person and remote programs; and expand so more New York State students have the chance to pursue a STEM career. BioBus aims to reach 45,000 students in the coming 2022-2023 school year through in-person programs. New York State support will directly enable 10,000 NYS students to participate in BioBus programs.

I am grateful for your consideration of this request for **\$700,000** of operating expense funding,

giving **10,000 young scientists** the chance to discover, explore, and pursue science. Specifically, this funding will support personnel costs for BioBus's community scientists and program operations staff, lab supplies, lab maintenance, and travel to schools. The heart of BioBus is a team of highly committed, innovative, and experienced scientists who work tirelessly with NYS students as they prepare to lead a more diverse scientific community that will deliver for all New Yorkers. As we regularly respond to student needs, we are considering hiring a social worker and other specialized staff to further support our young scientists. Support for BioBus will expand and continue science education programs, providing over 45,000 New Yorkers with access to science next year, and furthering education, equity, and opportunity.

Thank you for your continued support of BioBus and for your consideration of this request. I look forward to discussing how we can inspire the next generation of scientists from your district.

Sincerely,



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