



# **New York** *Blood Center Enterprises*



## **REQUEST FOR ASSISTANCE** OVERVIEW OF PROJECT NEEDS

### **NYBCe MISSION**

We provide the highest quality blood and stem cell products and related medical and consultative services to hospitals and patients nationwide. Our committed staff also conducts high quality, novel, and innovative research in the fields of hematology, blood banking, transfusion medicine, and cellular therapy, thus advancing these fields and positively impacting the public health. In our current COVID-19 pandemic, we are also developing relevant products and services, with a focused effort on antibody testing and vaccine research. Visit the links below for more information about our mission and geographic reach:

[nybc.org/overview](https://nybc.org/overview)  
[nybc.org/enterprises](https://nybc.org/enterprises)

### **CRITICAL FUNDING NEEDS**

- Convalescent Plasma (experimental treatment collected from recovered COVID-19 patients)
- Antibody and Serology Testing (to support COVID-19 response and workforce restoration)
- COVID-19 Vaccine Development and Pre-Clinical Trials

### **CONVALESCENT PLASMA (CP1): SEEKING \$2M INVESTMENT DOLLARS**

NYBCe is leading the way in providing convalescent plasma, a potentially vital therapy for critically ill COVID-19 patients. Convalescent plasma collected from recovered patients has high antibody titers that can potentially fight the COVID-19 virus in the recipient, and early data suggests it can improve patient outcomes. The therapy is currently only being used to treat the sickest patients, but clinical studies are investigating its use in more mildly symptomatic patients or as prevention for those at high-risk of infection, such as healthcare workers.

As more individuals are becoming critically ill, we will need to greatly increase the number of convalescent plasma products. We have already provided over 5,000 plasma units to hospitals, and we are estimating the need for thousands more to support experimental treatment of patients in the United States who become critically ill. If we extend the therapy to all COVID-19 patients in the hospital, to those presenting with no or little symptoms, and for prophylactic use in high risk exposures, the number of units required could grow significantly.

NYBC is working closely with our partners throughout New York City and the Tri-State area to recruit donors and study the outcome. New York State is also supporting us in this lifesaving endeavor by helping recruit and test donors to build up an inventory for our communities. We are fortunate to be a part of a strong and resilient city that comes together so patients can receive lifesaving convalescent plasma. Grants and funds contributed to the CP1 program will enable us to ramp up our collections more quickly through acquisitions of equipment, supplies, and staff to provide more products. Our funding goal is \$2M. More info on CP1 can be found here: [nybc.org/covidplasma](https://nybc.org/covidplasma)

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### ANTIBODY AND SEROLOGY TESTING (ABS1): SEEKING \$3M INVESTMENT DOLLARS

NYBCe already has a well developed infrastructure of laboratories in Long Island City, (Queens) NY, Providence, RI, Newark, DE, Minneapolis, MN, and Kansas City, MO. We can rapidly begin testing recovered COVID-19 patient samples for neutralizing antibody titers. First, we test all known COVID-19 positive individuals after day 14 of symptoms. Second, we test symptomatic but not previously tested potential donors. Third, we screen our donors to subsequently recruit them into the program and/or use their plasma from a whole blood donation as convalescent plasma. Lastly, we do seroprevalence studies and natural history of antibody response studies and share this information with the medical community nationwide.

Grants and funds contributed to the ABS1 program will enable us to ramp up our testing more quickly through acquisitions of equipment, supplies, and staff to provide testing more than ten times our current capacity. Our funding goal is \$3M. More info on ABS1 can be found here: [nybc.org/labservices](https://nybc.org/labservices)

### COVID19 VACCINE DEVELOPMENT AND PRE-CLINICAL TRIALS (CVD1): SEEKING \$10M INVESTMENT DOLLARS

NYBCe and our Lindsley F. Kimball Research Institute has been working on SARS-CoV-2 research since December 2019. Our Laboratory of Virology, under the leadership and guidance of Christopher D. Hillyer, MD, Lanying Du, PhD, and Shibo Jiang, MD, PhD, has already applied its expertise and knowledge to design a novel vaccine candidate using liposomal encapsulation of a specific mRNA marker. This possible vaccine is currently being tested in two of our labs including the Laboratory of Stem Cell Regenerative Research headed by Larry Luchsinger, PhD.

With CVD1 funding we can test our vaccine in a small hamster and ferret trial using live SARS-CoV-2 as a challenge to test vaccine efficacy. The preliminary data would be available in the July-August 2020 timeframe. Our funding goal is \$10M for this critical project. More info on CVD1 can be found here: [nybc.org/du](https://nybc.org/du)

### OTHER NEEDS

Donor Recruitment and Donor Screening (DR1): We are constantly updating our website to recruit potential donors and working with New York State to recruit individuals who are known to be positive. Also, a trained team of staff would review potential donors to ensure they meet donor criteria. This program seeks \$500K in funds.

### FURTHER INFORMATION

Please contact Rich Miller-Murphy, Executive Director (Blood, Laboratory and Medical Services), [rmiller-murphy@nybc.org](mailto:rmiller-murphy@nybc.org), 917.439.1727 or Elisabeth (Radaker) Scaffidi, [eradaker@nybc.org](mailto:eradaker@nybc.org), 646.983.3098

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