

**Manhattanville in West Harlem Implementation Plan Report
October 16, 2023 Submission**

Declaration Reference and Key Data

Obligation Section Number: **5.07(c)(i)**

Obligation Title: **Mind Brain Behavior K-12 Education Center**

Obligation Page Number: **52**

Obligation Trigger: **Issuance of TCO for Development Site 2**

Obligation Start Date: **August 25, 2016**

Obligation End Date: **25 Years from Commencement of the Education Center's Full Operation**

Obligation Status: **In Compliance**

Obligation

Mind Brain Behavior K-12 Education Center. CU shall locate within Development Site 2 (the proposed Jerome L. Greene Science Center) to be constructed in Stage 1 a Center to educate the community about diseases that affect the mind and brain as well as the advances being studied by CU's faculty and researchers. The Center shall encourage and design programs for local elementary, junior high school, and high school students. The Center shall commence operation upon issuance of the temporary certificate of occupancy for the Jerome L. Greene Science Center and operate for a 25-year period from commencement of full operation.

* The center opened to the public in February 2017. Therefore, this obligation will be in effect until 2042, 25 years from the commencement of the center's full operation.

Evidence of Compliance

1. Press release and/or announcement about center opening
2. Link to website
3. Annual report
4. Signage at Jerome L. Greene Science Center

Columbia University's Implementation Plan and all supporting documentation are made available on the Columbia Neighbors Webpage at <https://neighbors.columbia.edu/content/community-commitments>.

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EOC Checklist for Obligation 5.07(c)(i):

Please check to verify EOC items submitted for review.

- 1. Press release and/or announcement about center opening
- 2. Link to website
- 3. Annual report
- 4. Signage at Jerome L. Greene Science Center

Monitor's Notes / Comments:

Status:

Please check to indicate the status of Obligation 5.07(c)(i):

- In Compliance
- In Progress
- Not In Compliance
- Not Triggered

Public Programs at the Zuckerman Institute

Science and community come together at Columbia's Mortimer B. Zuckerman Mind Brain Behavior Institute

The Zuckerman Institute is delighted to call Manhattanville home and eager to share with our neighbors the challenge and excitement of learning how our minds and brains work. Our Education Lab, located near the 129th Street entrance of the Jerome L. Greene Science Center, is open year round and hosts a variety of hands-on brain science programs. Designed with feedback from the community, these programs harness the groundbreaking research of the institute in creative ways for school children, families, after-school groups, teachers and adults. Contact us to learn more about our programs; we have only just begun!

Community Brain Expo

What does a human brain feel like? Come find out at the Zuckerman Institute's Community Brain Expo. We invite our neighbors to join us for this free public event, held every spring, which features head-scratching demonstrations and mind-boggling activities for every age. Visitors put their minds to the test as they learn about how we see the world around us, how our memories work and other fundamental aspects of the mind and brain. Led by actual scientists, the event is organized by Columbia University Neuroscience Outreach, a group of Columbia graduate students devoted to sharing brain science with the public. The event is held in celebration of Brain Awareness Week.



The Zuckerman Institute's
Kelley Remole explains brain
science to a group of students.
Credit: Columbia University



Visitors at the Zuckerman Institute's 2016 Community Brain Expo. Credit: Michael DeVito



2016 BRAINYACs show off posters presenting their research. Credit: Zuckerman Institute

BRAINYAC: Brain Research Apprenticeships in New York at Columbia

Hands-on experience in a laboratory is essential for preparing today's youth to become tomorrow's scientists. With this in mind, the Zuckerman Institute's Brain Research Apprenticeships in New York at Columbia (BRAINYAC) program provides an immersive science research experience in which high school students train and work in neuroscience laboratories at Columbia University. The BRAINYAC program is open to students from select partner programs and schools that serve students in Upper Manhattan and the Bronx. Each student is matched with a Columbia neuroscientist, a mentor who guides the student through a research project. Students come away from the experience with an enhanced understanding of how laboratory research leads to transformative discovery, exposure to a professional academic environment and a stronger connection to science as a career. BRAINYAC receives generous support from the Pinkerton Foundation and the Stavros Niarchos Foundation.

For more information about the public programs at Columbia's Zuckerman Institute, please contact:

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Brain Insight Lectures and Teacher-Scholar Program

At the Brain Insight Lectures, free and open to the public, eminent Columbia scientists and scholars examine how brain science intersects with everyday life. Speakers have included Olajide Williams, MD, who spoke about how to prevent strokes in communities of color and Frances Champagne, PhD, discussed how our early experiences shape our behavior. Upcoming lecture by Thomas M. Jessell, PhD, will share his groundbreaking work on the neuroscience of movement. These lectures are the scientific cornerstone of our Teacher-Scholar Program, which introduces middle and high school science teachers in New York City to cutting-edge brain science for the duration of the school year. Using the lectures as case studies, the teachers participate in workshops and create a lesson plan each semester that brings neuroscience back to their classrooms. Teachers who complete the program emerge with greater knowledge of neuroscience, a deeper understanding of the scientific process and a toolbox of concrete ways to implement their knowledge in the classroom. These programs are made possible with generous support from the Stavros Niarchos Foundation.

Mind Brain Behavior K-12 Education Center

Link to website:

<https://zuckermaninstitute.columbia.edu/engage>



Columbia University in the City of New York

COLUMBIA | Zuckerman Institute

Mind. Brain. Behavior.

SCIENCE | PEOPLE | PROGRAMS | ENGAGE | EVENTS | NEWS | ABOUT

SEARCH | EMAIL | SOCIAL MEDIA | SUPPORT

Engage

Science and community engage with each other at Columbia's Zuckerman Institute. We are delighted to call Manhattanville home and eager to share with our neighbors the challenge and excitement of learning how our minds and brains work.

Students learn about the wonders of the brain at the 2016 Community Brain Expo (Credit: Michael DiVito/Columbia University).

Explore Science with Us!

We host a variety of hands-on brain science programs in the Education lab at the Jerome L. Greene Science Center, located at 609 W 129th St. Designed with feedback from the community, these programs harness the groundbreaking research of the Institute in creative ways for school children, families, after-school groups and adults. Please see below for a list of our current on-site programs and virtual resources.

Many of our programs such as Art in the Education Lab and Breakout Science grow out of community partnerships. If you are interested in partnering with us, please fill out our [interest form](#) or email programs@zi.columbia.edu.

Annual Report: Mind Brain Behavior K-12 Education Center

State Submission Reporting Period: **October 2022 - September 2023**

The ground floor of the Jerome L. Greene Science Center is open to all and is a neighborhood-based resource for brain science education. On February 11, 2017, the Mind Brain Behavior K12 Education center opened, called the Education Lab. Education programs bring together groundbreaking research in creative and exciting ways for school children, families, adults and teachers. Located near the 129th Street entrance to the building, this 1,500 square foot space was designed to resemble the scientific research laboratories of the Zuckerman Institute.

Saturday Science

One of the Institute's programs at the Education Lab is Saturday Science – a themed free event for students, families and community groups held once a month through the school year. Saturday Science activities and demonstrations are engaging and informative, providing launching points for further exploration, reflection and discovery.

In addition to the eight events detailed below, the members of CUNO (Columbia University Neuroscience Outreach), the graduate student group that helps to support Saturday Science, participated in the Super Saturday STEM Expo on May 13, 2023, organized by Manhattan's Community School District 5 and Harlem Children's, where they guided children and families through hands-on science activities.

During this reporting period eight Saturday Science events were offered. Most events were held in person, with the exception of those in November and December of 2022:

In-Person events:

On October 22, 2022, Saturday Science was held in conjunction with Manhattanville Community Day. 254 children and their families attended, 64% of whom were first-time attendees and 61% of whom lived in the community zip codes. The event on February 25, 2023, had an attendance of 277, with 77% first-time attendees and 48% community zip code residents. On March 25, 2023, attendance was 250, with 67% first-timers & 68% community residents. On April 22, 2023, attendance was 270 with 58% first-timers & 67% community residents. On May 20, also in conjunction with Manhattanville Community Day, attendance was 290, with 68% first-timers and 69% community residents. On September 23, 2023 there were 299 attendees, with 64% first-time attendees & 67% community residents.

Virtual events:

Due to an uptick in COVID-19 cases in New York City at the end of 2022, two of Saturday Science events operated via a virtual platform on November 19 and December 17. Attendance at these two events was decidedly less than hoped, 34 in November and 17 in December, and the decision was made to continue with only in-person events going forward.

Brain Insight Lectures

The Zuckerman Institute's free public lecture series, the Stavros Niarchos Foundation Brain Insight Lectures, examines ways that brain science intersects with everyday life. Each lecture features a Columbia researcher whose approaches to the science of brain and mind resonate with a public audience. The lectures, offered four times a year, are the scientific cornerstone of the Stavros Niarchos Foundation Teacher-Scholar program, a competitive program that introduces high school science teachers in New York City to cutting-edge brain science for the duration of a school year. This series is beyond the requirement of Columbia's commitment.

During this reporting period, there were four events held, all in a hybrid format (a small in-person audience with a live streaming option), in line a shift made due to the COVID-19 pandemic in an effort to make this program more accessible. Events were held on the following dates: September 21, 2022, January 18, 2023, February 9, 2023 and April 20, 2023. Collectively, these events had 711 live participants and over 2000 views on YouTube afterwards.

Public Programming

For the period October 2022 through September 2023, the Education Lab was open to visitors, and public programming resumed, including the BRAINYAC internship program, Saturday Science events, the Brain Insight Teacher-Scholar program and lecture series, Art in the Education Lab, and collaborative community events with partners such as the National Jazz Museum in Harlem, Arts & Minds, The Harlem International Film Festival, and A. Philip Randolph Senior Center in Harlem. During this period, the Education Lab hosted a total number of 1783 events for a total of 14,009 hours of science programming for the public. This number also includes activities hosted by the Lab's partner program, the independently operated BioBus, Inc.

Program Outreach

Each program has a customized publicity strategy built on targeting communities in upper Manhattan and the South Bronx. For example, the Zuckerman Institute publicizes Saturday Science to reach students, families, teachers and community members in upper Manhattan and the South Bronx. Local schools, libraries and community organizations such as Manhattanville Community Center and NYPL are informed of this free, fun-filled event electronically via email and through printed flyers.

The Brain Insight Teacher-Scholar Program is publicized each spring during its application period to schools in the local community and city-wide via emails and posts to specific mailing lists including I Teach NYC, Math for America, STEM Teachers NYC. Flyers are shared by email with schools including KIPP Infinity Charter School, PS 036 Margaret Douglas, PS 129 John H Finley, Academy for Social Action, Frederick Douglass Academy II Secondary School, Opportunity Charter School, PS 149 Sojourner Truth, PS 165 Robert E Simon, Wadleigh Secondary School for the Performing Arts, Thurgood Marshall Academy, A. Philip Randolph Campus High School, Harlem Renaissance High School, IS 223 Mott Hall High School, Urban Assembly for the Performing Arts, and Eagle Academy.

Additional Supporting Documentation

- Copies of Saturday Science event flyers
- Copy of Brain Insight Teacher-Scholar Program flyer

Free monthly events for kids of all ages to explore the workings of the brain through hands-on activities



SATURDAY SCIENCE!

IN-PERSON

September 17, 1-4PM
The Changing Brain

October 22, 1-4PM
Making Connections
(Manhattanville Community Day)

VIRTUAL

November 19, TBD
Food For Thought

December 17, TBD
Sight & Mind

Jerome L. Greene Science Center
609 West 129th Street, Education Lab



Find more info
& register here

BIOBUS

COLUMBIA | Zuckerman Institute
MORTIMER B. ZUCKERMAN MIND BRAIN BEHAVIOR INSTITUTE



Free monthly events for kids of all ages to explore the workings of the brain through hands-on activities



SATURDAY SCIENCE!

Online Edition

November 19, 12-2pm

Food For Thought



Scan at the time of the event to join the Zoom

December 17, 12-2pm

Sight & Mind



BIOBUS

COLUMBIA | Zuckerman Institute
MORTIMER B. ZUCKERMAN MIND BRAIN BEHAVIOR INSTITUTE



Eventos mensuales gratuitos para niños de todas las edades para explorar el funcionamiento del cerebro a través de actividades prácticas



SÁBADO de CIENCIA!

Edición en línea

19 de noviembre, 12-2pm

Alimentos Para La Reflexión



17 de diciembre, 12-2pm

La Vista y La Mente



Escanea a la hora indicada para unirse al Zoom

BIOBUS

COLUMBIA | Zuckerman Institute

MORTIMER B. ZUCKERMAN MIND BRAIN BEHAVIOR INSTITUTE



Free monthly event for kids of all ages to explore the workings of the brain through hands-on activities



SATURDAY SCIENCE!



Join us this spring! *Come to one event or all!*

Feb 25, 1-4PM

That Loving Feeling

Mar 25, 1-4PM

The Mind in Bloom

Apr 22, 1-4PM

Think Green

**EARTH
DAY**



May 20, 1-4PM

Growing Together

Jerome L. Greene Science Center
605 W 129th, Ground Floor

Scan to RSVP



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MORTIMER B. ZUCKERMAN MIND BRAIN BEHAVIOR INSTITUTE



Free monthly event for kids of all ages to explore the workings of the brain through hands-on activities



SATURDAY SCIENCE!

Brand NEW activities every month!



Join us this fall! *Come to one event or all!*

Sep 23, 1-4PM

A Sense in Me



Oct 21, 1-4PM

Actions and Reactions

Nov 18, 1-4PM

Across the Animal Kingdom

Jerome L. Greene Science Center
605 W 129th, Ground Floor



Scan to RSVP

BIOBUS

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Eventos mensuales gratuitos para niños de todas las edades para explorar el funcionamiento del cerebro a través de actividades prácticas



SÁBADO de CIENCIA!

¡Actividades nuevas
cada mes!



Participe con nosotros este otoño
¡Venga a un evento o a todos!

23 de sept, 1-4PM

*Un Sentido
dentro de Mí*



21 de oct, 1-4PM

Acciones y Reacciones

18 de nov, 1-4PM

A Través del Reino Animal

**Centro de Ciencias
Jerome L. Greene
(605 W 129th, planta baja)**



Regístrese aquí

BIOBUS

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High-School Teacher Professional Development

Apply now: two opportunities at Columbia's Zuckerman Institute



Teacher professional development (Photo credit: Sirin Samman/Columbia University 2022)



Chancellor's Day: June 9, 2022

BrainSTEM In Action

Neuroscience of Anxiety: STEM learning to promote social-emotional growth
Tour Columbia's MRI research labs and learn about the neuroscience behind math anxiety and fear. Collaborate with other teachers to tailor a lesson on this topic for your classes. Free or compensated workshop.

Application & more info: <https://bit.ly/BIA-22> or scan QR code

Apply online by May 18, 2022.



Academic year: Sept 2022 - May 2023

Stavros Niarchos Foundation Teacher-Scholar Program

Learn about cutting-edge neuroscience research from Columbia faculty.
Work with teachers from across NYC to create new curricula for your classroom.
Compensated fellowship.

Application & more info: <https://bit.ly/TS-22-23> or scan QR code

Apply online by May 30, 2022.



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Zuckerman Institute Education Lab