

**Manhattanville in West Harlem Implementation Plan Report
October 14, 2022 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:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.

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



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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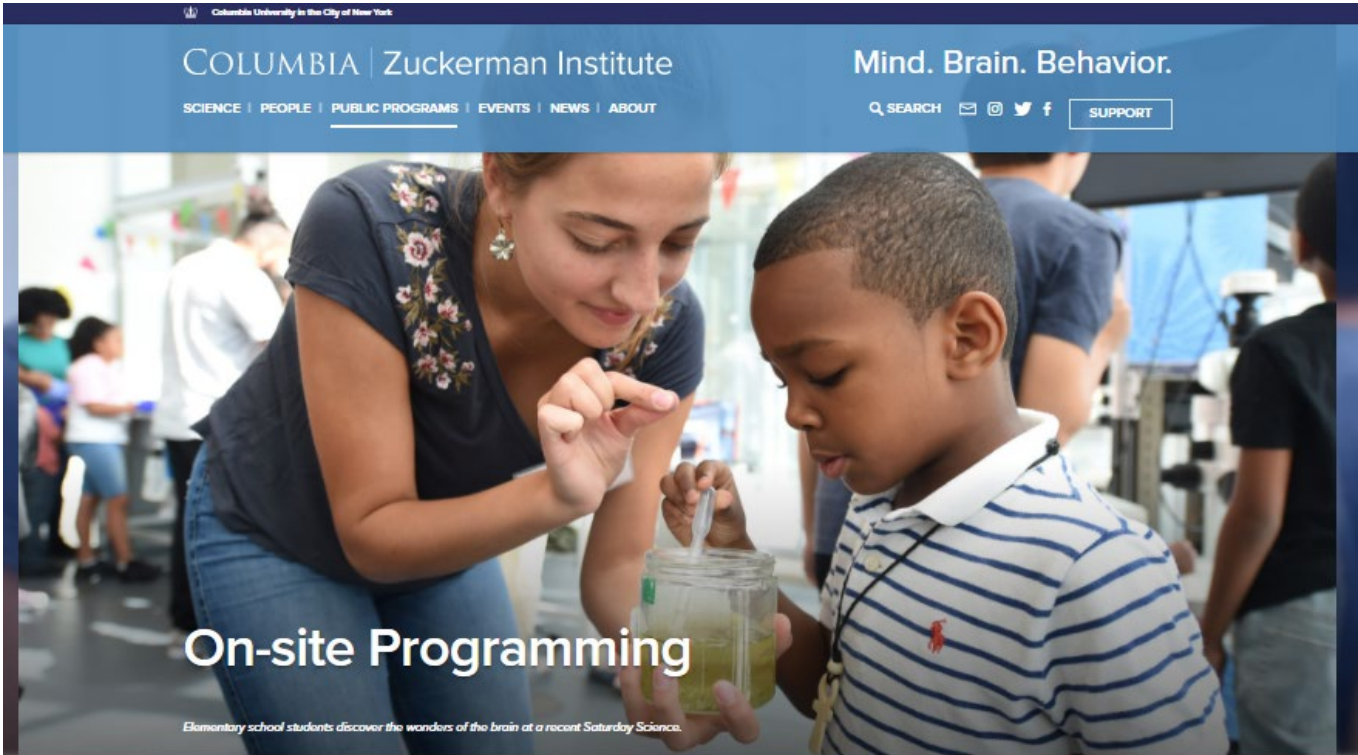
Brain Insight Lectures and Teacher-Scholar Program

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/education-lab>



COLUMBIA | Zuckerman Institute

Mind. Brain. Behavior.

SCIENCE | PEOPLE | PUBLIC PROGRAMS | EVENTS | NEWS | ABOUT

Q SEARCH [email icon] [social media icons] SUPPORT

On-site Programming

Elementary school students discover the wonders of the brain at a recent Saturday Science.

Explore Science With Us

We normally host a variety of hands-on brain science programs in 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.

Much of our on-site programming has been suspended due to the COVID-19 pandemic. Please visit our main [Public Programs](#) page for a list of online programming, as well as virtual resources for students, families and adults.

Annual Report: Mind Brain Behavior K-12 Education Center

State Submission Reporting Period: **October 2021 - September 2022**

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.

Due to the COVID-19 pandemic, the Saturday Science program operated via a virtual platform for part of the reporting period and then returned to an in-person activity in the spring and fall of 2022. In addition to the four events detailed below, the members of CUNO (Columbia University Neuroscience Outreach), the graduate student group that helps to support Saturday Science, participated in Harlem Grown's Halloween Festival on October 31, 2021, staffing 3 tables where they guided children and families through hands-on science activities.

During the reporting period four Saturday Science events were offered:

Virtual events:

A Saturday Science at Home Zoom activity day was held on December 4, 2021. As part of this event, 500 science kits were distributed to key locations in the community (schools and libraries). Fifteen families participated in the live event, and the videos accompanying the event have received over 650 views on YouTube. The majority of attendees were families who had previously participated in Saturday Science family days and from schools in the local community. In March 2022, as a part of Brain Awareness Week, another Saturday Science at Home distribution event was offered. The team decided to distribute the kits and pair them with videos that children and families could engage in asynchronously. As a part of that effort, 500 science kits were distributed and the videos that accompanied the activities in the instructional booklet have received over 215 views on YouTube.

In-Person events:

On May 21, 2022, the first in-person Saturday Science event since February 2020 was held in conjunction with Manhattanville Community Day. Over 500 participants attended, over 80% were new to Saturday Science and over 90% living in the community zip codes. On September 17, 2022 a stand-alone Saturday Science event was held, with over 160 participants, over 80% of them being new participants and over 70% living in the community zip codes.

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 three events held, one was held through a virtual platform due to the COVID-19 pandemic, and the other two were hybrid events. They were held on the following dates: November 4, 2021 (virtual), February 2, 2022 (hybrid), and April 27, 2022 (hybrid). Collectively, these events had 713 live participants and over 1600 views on YouTube afterwards.

Public Programming

For the period October 2021 through September 2022, the Education Lab was open to visitors, but virtual events continued to be held in order to remain accessible to participants amidst the shifting regulations due to the COVID-19 pandemic. These programs include BRAINYAC (the high school internship program described in the Youth Internships annual report), Saturday Science and Saturday Science at Home, the Brain Insight Teacher-Scholar program and lecture series, and collaborative community events with partners such as the National Jazz Museum in Harlem, Arts & Minds, The Dance Theater of Harlem, and The Harlem International Film Festival. During this period, the Education Lab hosted a total number of 1683 events for a total of 13163.5 hours of science programming for the public. This number also includes activities hosted by our 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 flyers
- Copy of Brain Insight Teacher-Scholar Program flyer



Saturday Science

Home Edition!

*An open house where you can experience neuroscience through hands-on learning—
now from your own home!*

Get an activity kit:

A reusable
drawstring bag with
3 lessons inside!
*¡También en
español!*



Go online:

Find the remote
link and fun video
tutorials here!

bit.ly/satsci2021

Join us at home:

Complete the
activities virtually
with real scientists!

**December 4,
2 to 4pm**





Saturday Science

Home Edition!

también en
español –
¡mira adentro!

Neuroscience Activity Instructions

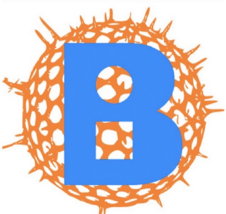
Find video instructions for all
three activities on our
website here!

bit.ly/satsci22

And head here for more
information about other
virtual events!

bit.ly/virtualbrains

(Be sure to save the jelly beans for Activity 3!)





Join us for the **in-person** return of

SATURDAY SCIENCE!

May 21, 2022
1:00–4:00pm

Jerome L. Greene
Science Center
605 W. 129th St., New
York, NY 10027

Find more info &
register here:



@BioBus

@ZuckermanBrain



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MORTIMER B. ZUCKERMAN MIND BRAIN BEHAVIOR INSTITUTE



¡Disfruta con nosotros en el regreso **en persona** de



SÁBADO de CIENCIA!

**21 de mayo
de 2022**

1:00–4:00pm

**Centro de Ciencias
Jerome L. Greene**

605 W. 129th St., Nueva
York, NY 10027

Encuentre más
información y regístrese:



@BioBus

@ZuckermanBrain



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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!

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

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2021-2022 Academic Year

September 28, 2021

[How our Brains Decide, Create and Innovate](#) with Michael Shadlen, MD, PhD and Sheena Iyengar, PhD

Registered: 770

Attended: 400

November 4, 2021

[The Science and Real Life Impact of Brain-Machine Interfaces](#) with Nima Mesgarani, PhD and Nathan Copeland

Registered: 502

Attended: 281

February 2, 2022

[Art in the Brain of the Beholder](#) with Nikolaus Kriegeskorte, PhD and Amanda Phingbodhipakkiya

Registered: 640

Attended: 272

April 27, 2022

[Gentle Touch: How the Brain Perceives Touch and What It Can Teach Us about Autism](#) with Ishmail Abdus-Saboor, PhD and Kirsten Lindsmith

Registered: 416

Attended: 160





**GREENE SCIENCE CENTER
ZUCKERMAN INSTITUTE**

JEROME L
GREENE SCIENCE
CENTER



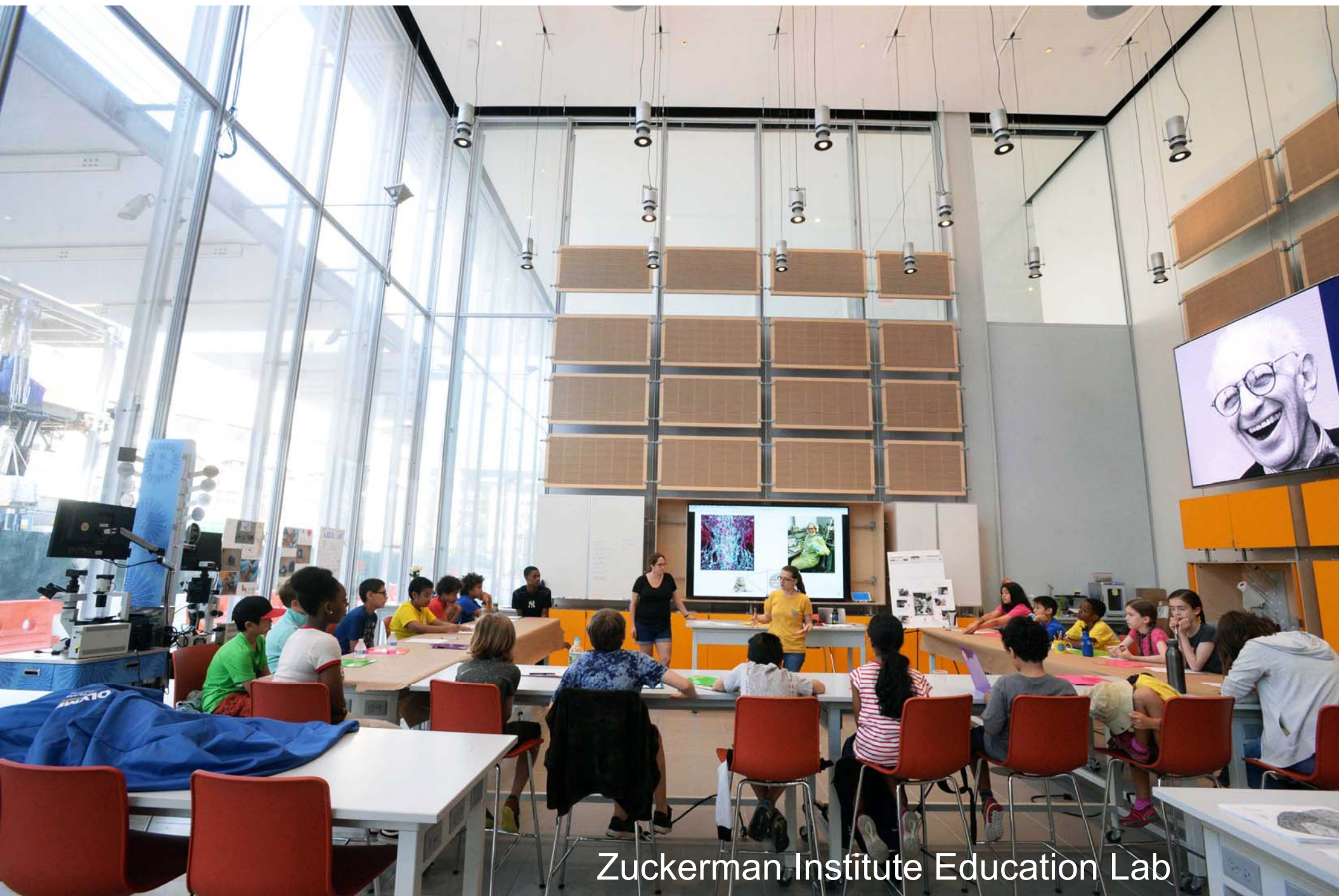
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609 W 129

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Zuckerman Institute Education Lab