NYC Builds Bio+

MEMBER SPOTLIGHT AND NETWORKING EVENT
FOR MEMBERS AND PROSPECTIVE MEMBERS
WSP

Thursday, May 5, 2022  |  5:30 PM – 7:30 PM  |  WSP USA Penn 1 250 W 34th Street New York, NY 10119
AGENDA

6:00-6:10PM  WELCOME BACK
  MEMBERSHIP
  PROGRAMMING
  WEBSITE UPDATES

6:10-6:30PM  LEADERSHIP COMMITTEE UPDATES

6:30-6:45PM  THE WSP EXPERIENCE
  MODERN LABORATORY APPLICATIONS AND THEIR UNIQUE NEEDS

6:45-7:30PM  NETWORKING
WELCOME BACK!

Uncharted Waters: NYC’S RAPID RESPONSE TO THE COVID-19 CRISIS

TUESDAY, MAY 12, 2020 | 9:00 AM – 10:30 AM
MEMBERSHIP

2019 MEMBERSHIP
25 CORPORATE
55 INDIVIDUAL

2020 MEMBERSHIP
29 CORPORATE
50 INDIVIDUAL

2021 MEMBERSHIP
37 CORPORATE
22 INDIVIDUAL

(Q1) 2022 MEMBERSHIP
46 CORPORATE
37 INDIVIDUAL
WELCOME NEW MEMBERS!
NYC BUILDS BIO+

PARTNERSHIPS

BIO NJ BIOPARTNERING CONFERENCE

COMMERCIAL OBSERVER
(CONCLUDED) ONLINE AND IN PRINT PARTNERSHIP
STARTING 9/23

TRIUMVIRATE SERIES

SAFETY PARTNERS

QUEENS CHAMBER OF COMMERCE

LIFE SCIENCES SUMMIT
2022 PROGRAMMING (TO DATE)

JANUARY 12: AURP BUILD BACK BETTER RECOGNITION

JANUARY 27: 1ST WEBINAR OF THE TRIUMVIRATE SERIES - OVERVIEW OF THE NYC AREA
296 REGISTERED
178 YOUTUBE VIEWS

FEBRUARY 22: 2ND WEBINAR OF THE TRIUMVIRATE SERIES - MIDTOWN WEST / LIC QUEENS
TACONIC PARTNERS: $2,500 DEVELOPER SPONSOR
269 REGISTERED
41 YOUTUBE VIEWS

MARCH 22: 3RD WEBINAR OF THE TRIUMVIRATE SERIES - MIDTOWN EAST / MANHATTANVILLE
230 REGISTERED

APRIL 26: 4TH WEBINAR OF THE TRIUMVIRATE SERIES - HUDSON SQUARE / JERSEY CITY
THE COVE: $2,500 DEVELOPER SPONSOR
200 REGISTERED
2022 PROGRAMMING (UPCOMING)

MAY 9 - 11: BIONJ BIOPARTNERING CONFERENCE
MAY 31: 5TH WEBINAR OF TRIUMVIRATE SERIES - ACADEMIC ALLEY

JUNE 21: COMMERCIAL OBSERVER, LIFE SCIENCE FORUM - THE ULTIMATE CATALYST, RAPID PROLIFERATION OF LIFE SCIENCE CITIES
JUNE 23: ANCHIN SPONSORED SEMINAR - AEC FIRMS AND LIFE SCIENCES: A DOUBLE BOND ENVIRONMENT FOR R&D CREDITS
JUNE 28: 6TH WEBINAR OF TRIUMVIRATE SERIES - BROOKLYN AND LONG ISLAND
TBD: SAFETY PARTNERS SPONSORED SERIES - INNOLABS

JULY 19: SAFETY PARTNERS SPONSORED SERIES - MANHATTAN FACTORY DISTRICT
JULY 26: 7TH WEBINAR OF TRIUMVIRATE SERIES - BRONX TO WESTCHESTER

AUGUST 11: THE ADVANCED SCIENCE RESEARCH CENTER - CUNY

SEPTEMBER 8: 8TH WEBINAR OF TRIUMVIRATE SERIES - CONNECTICUT

FALL 2022: SIMONE HEALTHCARE DEVELOPMENT AND HUTCHINSON METRO CENTER
HUDSON RESEARCH CENTER
COLUMBIA MANHATTANVILLE CAMPUS

2023: SOSV
NYC BB+ 2022 Symposium

SAVE THE DATE
TUESDAY, NOVEMBER 1, 2022
8AM-3PM (RECEPTION TO FOLLOW)

WHERE
THE TIMES CENTER
242 W 41ST STREET
NEW YORK, NY 10036
PHILLY BUILDS BIO + INAUGURAL SYMPOSIUM

SAVE THE DATE
TUESDAY, SEPTEMBER 13, 2022
8AM-3PM (RECEPTION TO FOLLOW)

WHERE
THE UNION LEAGUE CLUB OF PHILADELPHIA
140 BROAD ST PHILADELPHIA, PA 19102
UPCOMING WEBSITE REDESIGN

AUTOMATE MEMBERSHIP PROCESS

STREAMLINE FUNDRAISING AND INVOICING

CREATE A DIGITAL COMMUNITY

PROVIDE A SINGLE SOURCE FOR EVENT INFO

MANAGE AND SCALE MEMBER TRAININGS/CERTIFICATIONS

RESOURCES PAGE
**LEADERSHIP COMMITTEES**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Time</th>
<th>Location</th>
<th>Contact</th>
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</thead>
<tbody>
<tr>
<td><strong>ACADEMIC + MEDICAL INSTITUTIONS</strong></td>
<td></td>
<td>1st Monday @ 4PM</td>
<td>North of W 54th St</td>
<td>Trevor Boz, David Schwartz, Raquel Diaz</td>
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<tr>
<td></td>
<td></td>
<td>2nd Monday @ 3PM</td>
<td>South of W 54th St</td>
<td>Anthony Montalto, Zachary Bernstein</td>
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<tr>
<td></td>
<td></td>
<td>2nd Wednesday @ 11AM</td>
<td>South of W 54th St</td>
<td>Laura Gallo, William Brody</td>
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<tr>
<td></td>
<td></td>
<td>2nd Friday @ 4PM</td>
<td>South of W 54th St</td>
<td>Robert HopenhaJ M, Peter Sc Hubert</td>
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<tr>
<td><strong>LIFE SCIENCES</strong></td>
<td></td>
<td>3rd Wednesday @ 3:30PM</td>
<td>North of W 54th St</td>
<td>Christopher Horch, Doug Gonzalez, Joseph DelPozzo</td>
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<tr>
<td></td>
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<td>Last Tuesday @ 9AM</td>
<td>South of W 54th St</td>
<td>Joe Bolano, Rose Novak</td>
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<tr>
<td><strong>REGULATORY</strong></td>
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<td>2nd Monday @ 3PM</td>
<td>South of W 54th St</td>
<td>Anthony Montalto, Zachary Bernstein</td>
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<td>Anthony Montalto, Zachary Bernstein</td>
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<td><strong>HEALTHCARE</strong></td>
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<td>Joe Bolano, Rose Novak</td>
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<td><strong>PLANNING AND MEMBERSHIP DEVELOPMENT</strong></td>
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<td>2nd Wednesday @ 11AM</td>
<td>North of W 54th St</td>
<td>Tracy Anderson, Delphine Daniels</td>
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<td>South of W 54th St</td>
<td>Laura Gallo, William Brody</td>
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<tr>
<td><strong>NORTH OF W 54TH STREET</strong></td>
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<td>2nd Friday @ 4PM</td>
<td>North of W 54th St</td>
<td>Robert HopenhaJ M, Peter Sc Hubert</td>
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<td>South of W 54th St</td>
<td>Laura Gallo, William Brody</td>
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<td><strong>SOUTH OF W 54TH STREET</strong></td>
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<td>2nd Friday @ 4PM</td>
<td>South of W 54th St</td>
<td>Robert HopenhaJ M, Peter Sc Hubert</td>
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</table>
THE WSP EXPERIENCE:
MODERN LABORATORY APPLICATIONS AND THEIR UNIQUE NEEDS

TREVOR BOZ, PE, PMP, LEED AP
SENIOR VICE PRESIDENT,
NY SCIENCE & TECHNOLOGY

SAM CIULLA, PE LEED AP BD+C
DIRECTOR,
NY SCIENCE & TECHNOLOGY
**Agenda**

1. WSP Overview
2. WSP Local S+T Projects
3. Different Uses for Laboratory Space:
   - Research and Development
   - Production
   - Diagnostic Testing
   - Public Health
International expertise
Our local experts can tap into our knowledge bank around the world to explore and solve the most complex problems.

50,000 Employees
550 Offices
40 Countries

- Canada: 8,000
- United States: 10,000
- Latin America: 3,200
- United Kingdom & Ireland: 8,100
- Continental Europe: 1,300
- Nordics: 6,100
- Asia: 3,300
- Middle East & Africa: 3,400
- Australia & New Zealand: 5,500

By market sector:
- Transportation & Infrastructure: 52%
- Property & Buildings: 28%
- Industry & Energy: 10%
- Environment: 10%
USA Expertise - WSP

- Where we operate:
  - We provide sustainable consulting in the built and natural environment. This involves projects in:
    - Property and Buildings
    - Industry (FMCG, Pharma, Food, etc.)
    - Transport and Infrastructure
    - Power and Energy
    - Oil & Gas
    - Mining
    - Environmental
    - Advisory
**Laboratory Categories**

- Research + Development
- Production
- Testing
- Public Health

<table>
<thead>
<tr>
<th>Lab Type</th>
<th>Flexibility Need</th>
<th>MEP Utility Intensity</th>
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</thead>
<tbody>
<tr>
<td>Research &amp; Development</td>
<td>High</td>
<td>Varies</td>
</tr>
<tr>
<td>Production</td>
<td>Lower</td>
<td>High</td>
</tr>
<tr>
<td>Testing</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Public Health</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

*Photo: Columbia University – Sebastian Will Lab*

*Photo: Northwell Diagnostic Testing Lab*
WSP S+T Project Locations in NYC Region

1. PepsiCo – Valhalla, NY (300,000 SF)
2. Pfizer – Groton, CT (40,000 SF)
3. Regeneron - Tarrytown, NY (1MM+SF)
4. Boehringer Pharmaceuticals – Danbury, CT (200,000+SF)
5. Bio-Med Realty – Landmark and Ardsley Park (Multiple Building Infrastructure)
6. Amneal Pharmaceuticals - Brookhaven, NY (350,000 SF)
7. Quest Diagnostics – Clifton NJ (250,000 SF)
8. Northwell Core Labs, Queens + Lake Success, NY (160,000 SF)
9. Columbia University – NYC (120,000 SF)
10. Princeton University – Princeton, NJ (5,000 SF)
11. Einstein College of Medicine – Bronx, NY (200,000 SF)
**Project Description**

**New R&D Building Size:** 125,000 SF  
**Floor to Floor Height:** 16’  
**Program:** Office, Chemistry Labs, Tasting Suite, Amenities  
**Project Cost:** $80,000,000 (Estimated)  
**Status:** Complete  
Integrated Client sustainability goals with PV & Rainwater Harvesting Systems  
Achieved LEED Gold Status

**Existing R&D Building(s) Renovation Size:** 175,000 SF  
**Existing Floor to Floor Height:** Varied, 11'-6” to 14'-0”  
**Program:** Office, R&D, Chemistry Labs, Manufacturing/Bottling  
**Project Cost:** $80,000,000 (Estimated)  
**Status:** Complete
NIH Building 40A
Bethesda, MD

**Project Description**

**Building Size:** 153,000/45,000 New SF  
**Lab Type:** Vaccine Research  
**Client:** NIH  
**Status:** In Construction

Addition to the existing Vaccine Research Center (VRC) which specializes in intramural research program whose multidisciplinary efforts are structured to bring together basic scientists, clinical investigators, and translational researchers in a concerted effort to accelerate the development of novel vaccine products.

Six-story 45,000 NSF biomedical research facility constructed directly north of the existing facility.

BSL-2 laboratories, specialty equipment and microscopy spaces, and administrative space.

WSP is providing full lab planning, structural, MEP, civil engineering, and landscape architecture services for the new expansion.
Current Office to Lab Conversions - Confidential Client
Groton, CT

**Project Description**

**Building Size:** 200,000 SF

**Project Size:** 40,000 SF

**Lab Program:** R&D/Chemistry Labs

**Status:** In Progress

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<tr>
<th>Service</th>
<th>Existing</th>
<th>Final</th>
<th>Change</th>
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<tr>
<td>Building Cooling Load</td>
<td>650 Tons</td>
<td>1,850 Tons</td>
<td>Added 1,200 Tons of Campus Cooling</td>
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<tr>
<td>Building Heating Load</td>
<td>5,000 MBH</td>
<td>19,000 MBH</td>
<td>Added 14,000 Lbs/Hr of Campus steam</td>
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<tr>
<td>Building Electrical Service</td>
<td>2MW</td>
<td>3MW</td>
<td>Upgraded service to a 4000 Amp Dual Feed</td>
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<tr>
<td>Building EM Power</td>
<td>150 KW</td>
<td>1500KW Diesel Gen</td>
<td>New 1500 KW Diesel Generator</td>
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<tr>
<td>Waste Water</td>
<td>Sanitary</td>
<td>San, Lab waste</td>
<td>New Lab Waste and Neutralization System</td>
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<tr>
<td>Lab Gases</td>
<td>None</td>
<td>Central Vac, CA, N</td>
<td>New Equipment Room and Central Services</td>
</tr>
<tr>
<td>Lab Ventilation</td>
<td>None</td>
<td>180,000 CFM</td>
<td>Four (4) New 45,000 CFM LAB AHUs with Energy Recovery</td>
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</tbody>
</table>
Current Office to Lab Conversions - Confidential Client (cont.)
Quest Diagnostics
Clifton, NJ

**Project Description**

**Building Size:** 250,000 SF  
**Contractor:** Gilbane  
**Lab Type:** Diagnostic Testing  
**Status:** Complete

Consolidation of multiple locations and developed a new 2-story 250,000 GSF state-of-the-art testing and diagnostics laboratory on a 20-acre site.

This new laboratory has achieved LEED Gold status.

WSP provided mechanical, electrical, and plumbing services, heating, ventilating and air conditioning systems, laboratory air systems, fire protection, emergency electrical systems, lighting controls, architectural lighting, MEP/FP, commissioning, and life cycle cost analysis for all major HVAC systems.

**Program:**

- 145,000 SF pathology lab & lab support  
- 50,000 SF office spaces  
- 10,000 SF amenity spaces  
- 45,000 SF back-of-house spaces.
Northwell Core Lab
Queens & Lake Success, NY

**Project Description**

**Building Size:** 40,000 SF

**Lab Type:** Diagnostic

**Unique Features:** AFB Higher Containment

**Status:** Complete

WSP provided mechanical, electrical, and plumbing (MEP) design services for the development of a new Core Lab for Northwell Health. There are new laboratories in two locations to support the area hospital network.

The LNP facility is a new building located in Queens, NY that is approximately 40,000 sf. This facility is equipped with a full standby generator back up, along with other redundant MEP systems.

The site consists of new laboratories and testing facilities, office spaces, and other supporting amenities and services.

Both sites earned LEED Gold certification.
Northwell Core Lab - Center For Advanced Medicine
Lake Success, NY

**Project Description**

**Building Size:** 1,000,000 SF  
**Project Size:** 110,000 SF  
**Original Use:** Office/Warehouse  
**New Lab Program:** Diagnostic Testing  
**Project Cost:** $60,000,000 (estimated)  
**Status:** Complete  
**Interesting Facts:** Building was an original Lockheed WW2 factory

WSP provided mechanical, electrical, and plumbing (MEP) design services for the development of a new testing laboratories & facilities, office spaces, and other supporting amenities for Northwell Health.

The project was a fit-out design of an approximately 110,000 SF existing building. This required all new MEP services to support the facility, including full onsite generator back up, rooftop mechanical systems and all new distribution.

This sites earned LEED Gold certification.
New York City Public Health Lab

**Project Description**

**Building Size:** 230,000 SF  
**Project Cost:** $400,000,000 (estimated)  
**Status:** In Construction

The new 230,000 gsf laboratory will include flexible laboratories and support spaces; offices; walk-in clinic; administration; mechanical; and circulation spaces as required. The laboratory building has been to accommodate a “surge” of activities during peak or seasonal outbreaks, including outbreaks of emerging pathogens like Zika and COVID-19. With program components including virology, environmental sciences, microbiology, a walk-in screening clinic, BSL-3 labs and a ISO cleanroom, the facility will remain a vital piece of the city’s public health infrastructure.

WSP is bringing its extensive experience in the design of some of the world’s most sophisticated research facilities to the lab planning and design, MEP engineering and design of the cogeneration system for the lab.
Amneal Pharmaceuticals
Brookhaven, NY

**Project Description**

**Building Size:** 350,000 SF

**Lab Type:** Pharmaceutical Production (GMP)

**Status:** Complete

**Program:**

- New 350,000 SF pharmaceutical facility
- 75,000 SF warehouse
- 50,000 sf office
- 225,000 sf GMP facility.
- Geothermal system that included open loop sized for 2,250 tons. The open loop was separated from the interior closed loop with plate and frame heat exchangers. The geothermal loop was configured to source pre-cooling coils first, then it travels to (3) 750 ton electric chillers, and lastly, (2) 300 tons heat recovery chillers cool the geo-loop to provide heating hot water for process hot water loads and heating hot water loads.
Thank You for your time!