THANK YOU TO OUR 2016 & 2017 CORPORATE PARTNERS

AT&T
Citi
National Grid
Siemens
Oath (formerly known as Yahoo!)
Argory Foundation
Praxair
General Motors
Tonawanda Engine Plant
Campus Construction
Clark Patterson Lee
Design Solutions
Applied Sciences Group
STAMP
Wendel
FIRST
Solar Liberty
Lab-Aids
Gifts In-Kind
AW Miller Company
Ecology & Environment, Inc.
Erie Community College
Fairycakes Cupcakery
Health Sciences Charter School
Pizza Plant
Roswell Park
Comprehensive Cancer Center
SUNY Buffalo State
(CIS Department and Earth Science Education Department)
United Way of Buffalo and Erie County

2016-2017 BOARD OF DIRECTORS AND OFFICERS

BOARD OF DIRECTORS
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Robin Wolfgang, VP Communications, Citi
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Joanne Colmerauer, Vice-President for Programs
Dr. Letitia Thomas, Secretary
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Co-Director SUNY Global Health Institute
Director, UB Center for Integrated Global Biomedical Sciences
Director, Translational Pharmacology Research Core
NYS Center of Excellence in Bioinformatics and Life Sciences
University at Buffalo
Michael Weiner, President and CEO
United Way of Buffalo & Erie County
Melodie Baker, Director of Education
United Way of Buffalo & Erie County
FROM THE EXECUTIVE DIRECTOR

Paul McCartney wasn’t thinking career pathways when he titled the song “The Long and Winding Road,” (the inspiration was farmland in Scotland), but there is a certain irony there when you think of the unexpected places a career can take you. I was a Communications major in college with a life-long love for the arts and humanities. My career pathway led me to public relations positions in the cultural sector and commercial and public broadcasting. My pathway wound around to the natural gas industry where I worked with plenty of engineers and geologists, and I was introduced to the WNY STEM Hub. I became involved first as an interested member, then an active volunteer, and was finally named the organization’s first Executive Director in 2017.

My awareness and appreciation of the impact science, technology, engineering, and math (and yes, the arts when we include STEAM) has on students and - in turn our regional economy and our society - grows every day. Opening students’ eyes to possibilities and opportunities that exist when you connect curiosity, creativity, and technology is creating our next generation workforce.

WNY STEM Hub’s signature programs hold meaning here: when we connect businesses and like-minded organizations with our programs – and by extension, today’s students – we are creating our five county region’s future. WNY STEM Hub’s board of directors, our advisory board, our members, and supporters are doing wonderful things by building these bridges. We’re creating community and changing lives, one student and one program at a time. I’m proud and happy to be part of WNY STEM Hub and its future.

Cherie Messore
Executive Director

FROM THE PRESIDENT

It is said that we are all made of the dust of stars and that the life of a star evolves over millions of years. Oh, that we should all enjoy such longevity! If we were to liken the evolution of WNY STEM Hub to the life cycle of a star, we could say that we have accelerated through our nebula phase, where gases and dust swirl as an indistinct mass, and are emerging into our protostar phase – a time for generating heat and burning a glow.

In the past year, WNY STEM Hub engaged its first team of contract employees and an Executive Director. We established a WNY STEM Satellite Center at St. Bonaventure University to better serve the Southern Tier. We officially obtained 501(c)(3) status. At the national level, we were recognized as one of 56 STEM Ecosystems by the National STEM Funders Network and as one of 42 authorized Regional Partners of the international Code.org organization.

The NYS STEM Quality Learning Rubric we helped shepherd was endorsed by the national STEMx network. We revisited and expanded a 5-year strategic plan. Through that plan, we are building out a vibrant and expanding portfolio of programs and services, including: our Quality Partner initiative; Career Exploration and STEM Café Series; and scaling up new Robotics teams. Our networking meetings continued to bring our cross-sector members together and our youth projects grew, including: the Student Spaceflight Experiments Project; The Girls Coding Project; and Hand in Hand.

We are grateful for the stellar glow cast on us from the sunny stars in our orbit: our dedicated Board of Directors and Advisory Board, the United Way of Buffalo & Erie County, the UB Center for Integrative Global Biomedical Sciences, the Empire State STEM Learning Network; our many sponsors and those of you who shared a passion for our mission.

Michelle Kavanaugh, Ed.D.
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CELEBRATING ACHIEVEMENT

With support from Siemens, WNY STEM Hub honors schools and school districts for demonstrating a commitment to beginning and growing a STEM education process. We honor districts and schools at three levels that comport with milestones on the NYS STEM Learning Rubric.

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Dunkirk City School District
Belfast Central School District
Lewiston-Porter Central School District
Wellsville Central School District
Amherst Central School District
Iroquois Central School District

2017

Bolivar-Richburg Central School District
Buffalo Academy of Science Charter School
Cassadaga Valley Central School District
Cattaraugus-Little Valley Central School District
Charter School for Applied Technologies
Cheektowaga-Maryvale Union Free School District
Fredonia Central School District
Frewsburg Central School District
Friendship Central School District
Panama Central School District
Tapestry Charter School

ENGAGED

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Mount St. Mary’s Academy
Maple Avenue Elementary School
St. Mary’s High School
Nichols School
Tapestry Charter School
MST Prep School

2017

Bishop Timon-St. Jude High School
East Aurora High School
Iroquois Middle School
Hamburg High School
Nardin Academy

DISTINGUISHED MENTION

Fletcher Elementary School
Mullen Elementary School
Riverview Elementary School
Tonawanda Middle School

HONORABLE MENTION

Alden High School
Mt. Mercy Academy

ACCOMPLISHED

2016

Lancaster High School
Niagara Falls High School

2017

Genesee Valley Elementary
Lockport High School
Mt. St. Mary Academy
St. Benedict School

A new award was presented in 2017 to acknowledge districts for their work in promoting sustainability in education.

SUSTAINABILITY AWARD

Pioneer Central Schools

HONORABLE MENTION

Genesee Valley Central Schools

STEM ADVOCATE AWARDS

The WNY STEM Board of Directors present

2016

The Buffalo Public Schools Board of Education
Citi

Cattaraugus-Allegany Dream It, Do It

2017

Congressman Brian Higgins

Our honorees embrace the importance of STEM education for students of all ages and grade levels.

Michelle Kavanaugh, Ed.D.
FINANCIAL DATA

Generous support from corporate partners and other donors help the WNY STEM Hub build our organization while we broaden and deepen the scope of our service. WNY STEM Hub relies on financial and in-kind support to facilitate the programs that extend the value of our mission.

In 2016, we also expanded the reach of our fee for service offerings to allow WNY STEM Hub to earn additional revenue while making an impact. The Progressive Career Exploration Partnership and the Quality Partner Program (to guide systemic enhancement for STEM and STEAM programs) are two programs that are making community impact while generating revenue.

A key goal is to develop a substantial base of support across all philanthropic means – from individuals who share our vision, foundations who care about our region, and corporate partners who appreciate our eye on their future workforce needs – to further enhance our growth. Thank you to the businesses, school districts, and other donors who believe in the value of WNY STEM Hub and invest in our current service and future growth.

2016 OPERATING BUDGET: REVENUES
- Earned Income from Services - $38,678
- Sponsorships - $21,364
- Program Fees - $6,327
- Individual Contributions - $1,519

In 2016, we had no expenses to report.

2017 OPERATING BUDGET: REVENUES
- Earned Income from Services - $33,691
- Sponsorships - $13,200
- Program Fees - $6,356
- Individual Contributions - $420

2017 OPERATING BUDGET: EXPENSES
- Staff and Taxes - $62,953
- Administrative Expenses - $4,791
- Admin - Independent Contractor - $6,456
- Program Managers - Independent Contractors - $4,016
- Consultants - $5,475
- Insurance - $3,413

The report (available online at wnystem.org) overviews critical and emerging needs in Erie, Niagara, Allegany, Cattaraugus and Chautauqua counties.

The next year, WNY STEM developed the Progressive Career Exploration Partnership, a partnership with Citi and other businesses who engage with students in a series strategic steps. It begins with a series of informal discussions called WNY STEM Cafes, where professionals shared stories and students are questions about career preparation and job satisfaction. Next steps include job shadowing and project based internships to accomplish short-term, authentic work.

“...The Progressive Career Exploration Partnership which includes the STEM cafes, job shadowing and internships has really proven to be successful in helping students to explore the multitude of career pathways available to business majors. Citi looks forward to our continued partnership with WNY STEM.

- Robin L. Wolfgang, VP Communications, Citi
Student Programs

Student Spaceflight Experiments Program* – Mission 12 to the ISS
WNY STEM Hub was proud to be invited to participate in the Student Spaceflight Experiments Program again in 2017. An experiment developed by students from the Wellsville Secondary School was selected to launch to the International Space Station (anticipated June, 2018) for testing by astronauts. More than two dozen businesses, individuals, and private foundations contributed in access of $25,000 to make this out-of-this-world experience possible for our students.

WNY Coalition Mission 12 Participants
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Olean High School
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*The Student Spaceflight Experiments Program conducted by the non-profit, National Center for Earth and Space Science Education, and is an on-orbit educational research opportunity in partnership with NanoRacks, LLC, a company that provides space research facilities in cooperation with NASA under a U.S. Space Act Agreement for utilization of the International Space Station as a National Laboratory.

Hand in Hand, Powered by AT&T
Life-changing. Surprising. Inspiring: these were some of the words students enrolled in Hand in Hand Powered by AT&T, a science, technology, engineering, art and math (STEAM) summer program, used to describe the experience they had designing four prosthetic hands for children in need using 3D printing technology.

Thank you to lead funder AT&T for launching Hand in Hand, Powered by AT&T. Here Kevin Hanna from AT&T presents the check to WNY STEM Hub president Michelle Kavanaugh, flanked by Diana Morgante from Health Sciences Charter School, Melodie Baker from United Way of Buffalo and Erie County, Dr. Hank Stopinski, principal of Health Sciences Charter School and Adam E. Kisailus, PhD MBA

MILESTONES

In the final days of 2017, WNY STEM Hub was granted its official 501 (c)(3) not-for-profit organization status.

In 2017, WNY STEM Hub was named one of 56 STEM Learning Ecosystems, a collection of like-minded partners who share a common goal that every child can thrive with access to high-quality science, technology, engineering, and math education.

WNY STEM Hub was named a Regional Partner of Code.org, one of 44 learning communities across the US: we share Code.org’s vision to make computer science education available to every student in every school and increase participation from women and under-represented minorities.

2016
600 partners representing 250 schools, school districts, colleges, businesses, organizations

2017
750 partners representing 275 schools, school districts, colleges, businesses, organizations

OUR PARTNERS

The Girls Coding Project
The Girls Coding Project is a two-week learning experience for girls entering the 6th through 12th grades, organized by WNY STEM in collaboration with Girl Scouts of WNY and SUNY Buffalo State. Funding from AT&T created the program in 2016, and General Motors Tonawanda Engine Plant provided 2017’s sponsorship. Sessions are held in the SUNY Buffalo State Technology Building, home of the college’s Computer Information Systems Department. The goal is to encourage more young women to pursue computer science education and to become part of WNY’s growing technology workforce.

Nina Heard from GM Tonawanda Engine, a Girls Coding Project sponsor in 2017, inspired the girls to embrace learning and their dreams.

WNY STEM Student Showcase
This event began in 2017 to demonstrate the power and impact of WNY STEM Hub signature programs. Students from each of our programs participated to celebrate STEM learning. And they had, fun, too! FIRST® Robotics

Students from Olean High School participated in the Student Spaceflight Experiments Program and showed off their work to parents and guests at the WNY STEM Student Showcase, sponsored by the United Way of Buffalo and Erie County and Applied Sciences Group at the SUNY Buffalo Science and Math Complex Atrium.

LT. Gov. Kathleen Hochul participated in Demonstration Day of The Girls Coding Project.

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**FIRST® Robotics**

Students from Wellsville Secondary School developed a proposal for an experiment that will launch to the International Space Station for microgravity testing.

**STUDENT PROGRAMS**

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OUR VALUES
Collaboration – Partners work together by Cooperating in order to achieve mutual gain.
Collective Impact – Partners align their efforts in order to achieve common goals.
Paying It Forward – Partners reciprocate on the benefits they receive from the organization by returning support in order to benefit the organization and its members.

Our valued partners help WNY STEM meet ambitious goals set forth in the strategic plan our Board of Directors adopted in 2017.

MISSION STATEMENT
We bring together Western New Yorkers to advance STEM learning in support of our region.

VISION STATEMENT
WNY STEM Hub will be the essential regional conduit for collaboration in advancing STEM learning and workforce development.

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TOMORROW’S WORKFORCE
In 2016, WNY STEM partnered with Monroe County Community College’s Economic Development and Innovative Workforce Services division (with sponsorship from the SUNY TEAM [Training and Education in Advanced Manufacturing] Project) on the “Measuring Middle-Skills Occupational Gaps Within the WNY Regional Economy.”

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“We honor our honorees embrace the importance of STEM education for students of all ages and grade levels.”

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Kathaleen Burke
Mark Caselli
Joanne Colmerauer
Kathleen Duggan-Haas
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Kathleen Murphy
James Newton
Kevin Purdy
Scott Read
Irene Schwanmer
Barbara Sherman
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Dawn Vona
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WNY STEM Hub Administrative Independent Contractors
Scott Read
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Vickie J. Melody

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K- Technologies
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