

“Approved Workers” – II Timothy 2:15

DOKIMO I ERGATAI

WINTER 2017

BUILDING RELATIONSHIPS IN ZAMBIA

By Emmanuel Gundran '18



Patricia and site team member Brianne Roper carry water to Patricia's home.



Lily cooks a meal with Patricia.




Groundbreaking research, building friendships, and learning about a new culture

characterize the Summer 2017 Diagnostics for Viral Diseases trip to Zambia. The team visited Dr. Phil Thuma at the Macha Mission Research Center to develop and gather information about a new diagnostic method for HIV. One member of the team, Lily Gaudreau, shares her academic, social and spiritual experiences during her time there. Her first trip to a developing country was educational and eye-opening.

Some aspects of the Zambian health care system surprised Gaudreau. Many medicines are more difficult to obtain in Zambia than in the U.S., and some rural communities lack access to adequate medical care. These observations inspired Gaudreau to work for a better future. “I was educated on the topic of global health care and the inequalities that exist for many in the developing world, with respect to the medical care they have access to. Through this experience I discovered that I want to use my passions, education, and eventually my career to work towards lessening the inequalities

seen in healthcare.”

The local community invited the team into their everyday lives during down time on the weekend. They exchanged funny stories, worshipped and danced at a church service, and carried water pitchers on their heads. Gaudreau enjoyed warm hospitality while she stayed at the home of Patricia Chileshe, a hospital staff member. Whenever Gaudreau needed something from Chileshe, she always said, “feel free.” This inclusion made working with the community to accomplish their goals all the more enjoyable.

Gaudreau was also inspired by the spiritual lives of her new Zambian friends. Whether or not they worship the Christian God, spirituality is an important part of Zambian culture. Those who are Christians find joy in their difficult circumstances, even feeling inspired and not worrying about the little things in life that bring them down. They thank God for every joy they receive, whether small or large. It's this mindset that Gaudreau admires. Gaudreau believes that she did not go to deliver a product, but to learn and grow along with the people of Zambia. 



Top: Patricia, Brianne, Lily, and Patricia's husband.
Bottom: Macha Hospital.

INSIDE

- 2016-2017 Annual Report
- Word from the Engineering Projects Manager
- Group updates: Preparing for a new year



THE COLLABORATORY FOR
STRATEGIC PARTNERSHIPS AND
APPLIED RESEARCH

WORD FROM THE ENGINEERING PROJECTS MANAGER

MISSION

The Collaboratory is a center at Messiah College for applied research and project-based learning, in partnership with client nonprofit organizations, businesses, governments and communities in our region and around the world. Areas of engagement include science, engineering, health, information technology, business and education. Our two-fold mission is:

- To foster justice, empower the poor, promote peace and care for the earth through applications of our academic and professional disciplines
- To increase the academic and professional abilities of participants, their vocational vision for lifelong servant-leadership and their courage to act on convictions

VISION

Increasing hope and transforming lives through education, collaboration, innovation and service.

IDENTITY

The Collaboratory is an organization of students, educators and professionals affiliated with Messiah College. We are Christians who aspire to obey the instructions of our Lord and Savior Jesus Christ, to love neighbors as ourselves and to share his Gospel. As God enables us to serve others today, we seek to grow as disciples of our Lord and Savior Jesus Christ, to serve as God's stewards over the resources of our academic disciplines and to bear witness to the good news of the Kingdom of God.

STUDENT STAFF

STUDENT DIRECTOR: Jessica Kline

ASSISTANT STUDENT DIRECTOR: Lily Gaudreau

STUDENT PROGRAM MANAGER: Wei Yee Ng

STUDENT ADMINISTRATIVE ASSISTANT: Linh Vo

PROFESSIONAL STAFF:

DIRECTOR: Doug Flemmens

ENGINEERING PROJECT MANAGER: Dereck Plante

PROGRAM MANAGER: Lori Zimmerman

ADMINISTRATIVE ASSISTANT: Shannon Walker

STAY CONNECTED

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EMAIL: collaboratory@messiah.edu

BLOG: messiahcollaboratory.wordpress.com

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DERECK PLANTE, ENGINEERING PROJECTS MANAGER



“What would Jesus do?” Around the time I became a believer, the phrase “WWJD” began showing up on bracelets and bumper stickers. It bothered me. I read the gospels and saw a Jesus who was beyond my reach. It was hard to consider being able to emulate, much less know, what he would do. Jesus could heal people with a touch of his hand or with a word from his mouth. Jesus had the cleverest responses to the questions asked of him. I felt incapable of being able to answer the question, “What would Jesus do?”

Then, one day in a Sunday School study, I learned about the humanity of Jesus and my eyes were opened. Jesus lived in a broken world like ours, and he focused his time and energy on caring for people right in front of him. He loved the woman who touched his cloak, the children that came up to him and the woman caught in adultery. Jesus responded to every situation by putting people before an agenda. As we deal with understanding our broken world, natural disasters, and mass shootings, remember Jesus’s example of making every day count by loving the people God brings into our lives. ◆

EMPLOYEE SPOTLIGHT

LORI ZIMMERMAN, PROGRAM MANAGER



“In one week I turned 50, I graduated and I started my new job.” 2017 has been a big year for Lori Zimmerman ‘17, the Collaboratory’s new Program Manager. Zimmerman recently earned her bachelor’s degree in business administration, begun in 1985 before being put on hold for marriage and the mission field. A familiar face at Messiah College, employed there since 2007, she’s embracing her new role with confidence.

Zimmerman is, without a doubt, a “people person.” Her very first job was coordinating events at the Messiah Village retirement community. “It’s all about people,” she says of her work there. “What can I do to make a difference in this 75-year-old, 80-year-old person’s life? What’s meaningful to them?” Later, she and her family served as missionaries in Honduras for five and a half years, mentoring youth from the United States to help them adapt culturally and grow spiritually.

“What can I do to make a difference in this [...] person’s life? What’s meaningful to them?”

Now, Zimmerman can fulfill her desire for impacting students in her work with the Collaboratory. “The Collaboratory is really complex,” she says. “It’s not your normal organization.” The Collaboratory is unique because it encourages student leadership and spiritual growth, topics that Zimmerman is passionate about. “The serving is great, and the learning is great – but it’s also about the spiritual growth.” With intergenerational and intercultural experience under her belt, she’s right at home working among students who have a heart to help and hands to serve. ◆

2016-2017 Annual Report

FROM THE DIRECTOR

It is impossible to convey the extent of my thankfulness for what God is doing through this organization. It is truly a privilege to serve with this dedicated group of faculty, volunteers, students and partner/clients in the work of **increasing hope** and **transforming lives**.

Increasing Hope– Many of our projects “officially” seek to serve the underserved of the world. The team’s target deliverable directly serves a felt need of the community. However, what you see teams doing is only the proverbial tip of the iceberg. Through deep engagement with these projects and the impacted communities, students gain a fuller vision of the world and their ability to make a difference. But perhaps even more importantly, we are able to develop personal connections across geographic, political, educational and man-made boundaries to gain a fuller sense of God’s love for and in us. “Lord, show your **love** to us as we put our **hope** in you.” (Psalm 33:22)

Transforming Lives– Through this process we certainly hope to bring change to difficult situations. We realize that true change often requires time horizons, forces and influences that are much bigger than what we can accomplish on our own. Yet we have the privilege to be part of this “bigger.” We cannot remove the uncertainties in which we live and work. However, we are certain that our own lives are being transformed by the experience. Teachers find new ways to engage with subject matter. Learners sharpen understanding. Mentors deepen appreciation for the next generation. Leaders find their voice. We are transformed. “Don’t live the way this world lives. Let your way of thinking be completely changed. Then you will be able to test what God wants for you. And you will agree that what he wants is right. His plan is good and pleasing and perfect.” (Romans 12:2)

As more students engage in this process, pray that we will continue to pursue the right things in the right way so that the right One gets the honor. “Now to Him who is able to do immeasurably more than all we ask or imagine, according to His power that is at work within us, to Him be glory in the church and in Christ Jesus throughout all generations, for ever and ever! Amen.” (Ephesians 3:20-21)



Doug Flemmens
Director

The Collaboratory for Strategic Partnerships and Applied Research at Messiah College

2016-2017 COLLABORATORY LEADERS

Doug Flemmens, Director

Damaris Gehman, Student Director

Lori Zimmerman, Program Manager

Jessica Kline, Assistant Student Director

Dereck Plante, Engineering Project Manager



SECTOR PROJECT HIGHLIGHTS



1. DISABILITY/BIO MEDICAL

- Sustainable Mobility. The team built five powered trikes in Burkina Faso with as much locally sourced material as possible towards a long-term goal of empowering local manufacturing. **Partner: Centre for the Advancement of the Handicapped.**
- Rapid Orthotics. A low-cost 3-D printing solution (scanning, software, printer) was delivered to Kenya. Messiah students set up the system in the country and trained local staff on its use. **Partner: Cure International.**
- Prosthetic Hand. A refined 3D-printed prosthetic hand was delivered to client at the end of the school year.



2. INFRASTRUCTURE

- Cumberland Pointe Futsal Court. This team worked with Messiah's Aroma sports ministry and completed civil engineering design for underserved immigrant community in Mechanicsburg. These plans have been approved by the property owner and local authorities and await funding in order to become a reality.
- Mexico Bridge. This team designed and built a foot bridge for partner **Forward Edge International** in Mexico. Their purpose was to provide wet-weather connection between the services of the community center and local residents.



3. WATER

- Affordable Sanitation. Team continues to design safe, sustainable solutions to address problem of pit latrine collapse in Ghana, West Africa. **Partner: World Vision.**
- Intelligent Water Pump (IWP). Team traveled to Ghana to identify problems on alpha-site installations and to improve software functionality. **Partner: World Vision.**
- Well Drilling. A new percussive well drilling rig was assembled in Burkina Faso and initial testing was completed. One student served an extended internship in the community and was able to conduct longer-term testing. **Partner: Open Door Development.**



4. ENERGY

- PV Solar. The team designed a system to power critical infrastructure for the **Ekuphileni Bible Institute** in Zimbabwe. A site team assembled and installed the system.
- Energy Monitoring and Management System (EMMS.) A system to provide low-cost power metering capability to developing communities continues to progress. Students traveled to Burkina Faso, West Africa to test the latest revisions. **Partner: Open Door Development.**



5. ADVANCEMENT

- Marketing Team. This volunteer team of students produced multiple newsletters, printed marketing materials and coordinated social media updates throughout the school year. They also produced a promotional video to explain the Collaboratory to potential students.

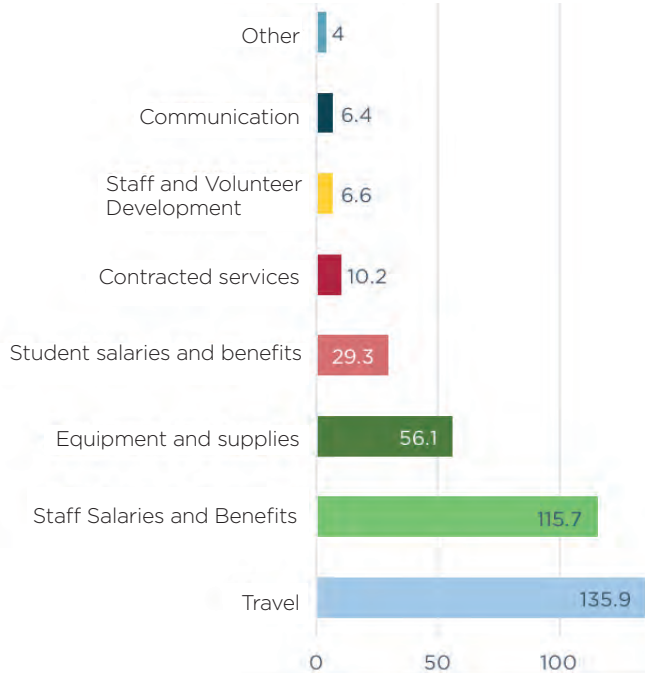


6. EDUCATION

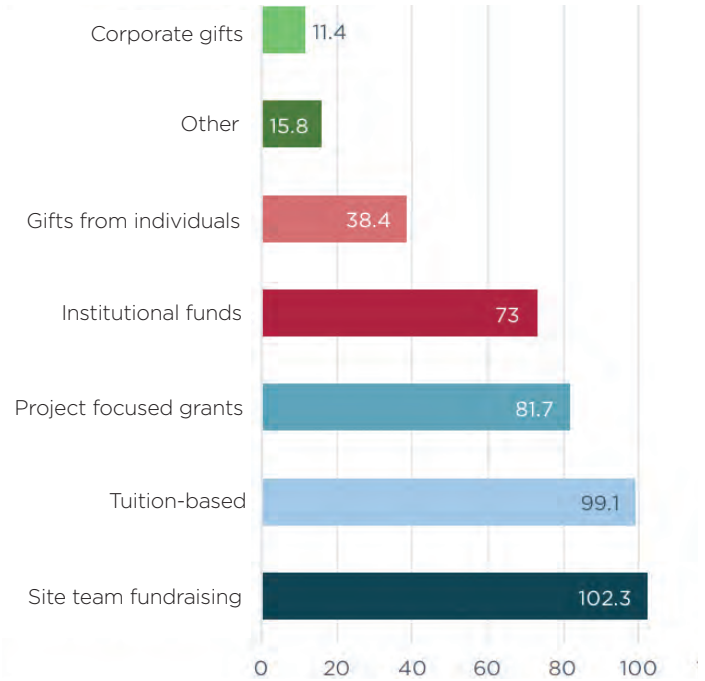
- Harrisburg Science Camps. This team runs weekly after-school science camps in the **Harrisburg City School district**. The team serves approximately 20 students every week.
- Burkina Faso. A portion of our Harrisburg Science Camps team took their "show" on the road and served the International Co-op of Ouagadougou, a group that comes together to fill educational gaps for families who are serving in "the bush" of Burkina and other West African countries.

2016-2017 OPERATING EXPENDITURES

TOTAL EXPENDITURE BREAKDOWN (1000'S)



TOTAL REVENUE SOURCES (1000'S)



Overall total expenditures
\$364,750

Overall total revenue
\$421,930

GIFTS IN KIND

Donated office and work space from Messiah

\$105,000

Estimated student volunteer service value

\$132,008 (18,208 hours)

Estimated professional advisor volunteer service value

\$210,000 (3,000 hours)

Estimated faculty support value

\$70,000

GRAND TOTAL

\$517,008

THANK YOU TO OUR INVESTORS

Your generous partnership makes Collaboratory initiatives possible. To conserve paper, we could only list a few of our many important donors.

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Invests in the Collaboratory monthly, up to \$500 per year

Wyatt Albert
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David & Nancy Knight
Timothy & Lisa Roesler
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Invests in the Collaboratory, \$500-\$1,000 per year

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Nancy J. Lenhert-McLellan
Scott & Marnee Rogerson
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PARTNER ORGANIZATIONS

Ability Prosthetics and Orthotics
Access Development
AROMA Missions
Cary Cupka
Center for the Advancement of the Handicapped
CURE International
CURE Kenya
Dark Moon Development
Engineering Ministries International
Forward Edge
Friends in Action
Harrisburg Public Schools

Institute of Affordable Transportation
Macha Research Centre of Zambia
New Tribes Mission
Office of Disability Services, Messiah College
Open Door Development
SIM
Rider Musser Development
Rio Missions
Sawyer Products
Sight and Sound
South East Asia Prayer Center
The Ekuphileni Bible Institute
Water4
Water Mission
Wheels for the World/Joni and Friends
Woodcrest Retreat Center
World Vision
Zambia Brethren in Christ Church

MAJOR FUNDING PROVIDED BY

Dillsburg Brethren in Christ Church
Intel Corporation
United Service Foundation
Lebo & Reed Real Estate
Mulberry Foundation
World Vision

ABOUT US

STUDENT MEMBERS

Advancement	10
Biomedical	24
Communications	20
Disability Resources	17
Economic Empowerment	2
Education	12
Energy	31
Infrastructure	22
Sustainability	15
Transportation	30
Water	45
Total Student Members	227

COUNTRIES WHERE WE SERVE

Burkina Faso	Nicaragua
Cambodia	Panama
Ghana	United States
Kenya	Zambia
Mexico	Zimbabwe

CONTACT US

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PREPARING FOR A NEW YEAR

By Poh Ann Goh '19



Student leadership is a key element of the Collaboratory's success. Before the start of every school year, the Collaboratory hosts a week-long Leaders' Workshop to equip students to manage teams and plan projects. This year's workshop consisted of activities ranging from project planning, to spiritual growth, to team building.

The Collaboratory's vision is to increase hope and transform lives through education, collaboration, innovation and service. Each project team develops their own vision and mission which parallels those of the organization.

Participant Calvin Dunmire '18 explains that communication goes hand-in-hand with the vision. The vision isn't helpful if others don't understand it. "The most important things I gained from the Leader's Workshop were to improve how I deliver the vision of my project to others, how I can continue to develop the vision of


my project and to use the vision to inspire my teammates."

Attendees also benefitted from learning about leadership, teamwork and managing relationships, saying that these are aspects of the Collaboratory that differentiate it from other extracurricular activities. "The Leaders' Workshop was a great way to learn more about what it takes to effectively lead a team," Jake Gulinello says.

Leah Hagenbuch '18 adds, "Some of the strategies recommended at the workshop include understanding the personality characteristics and strengths of your team members, creating times and spaces to intentionally get to know your team members better and growing together spiritually."

The emphasis on relationships also made an impact on Noah Armistead. "Relationships are just as important as results; therefore, it is important for someone to form relational trust between

themselves and a team before diving into the work that God has called them to do," he explains.

Healthy projects and strong relationships are part of what keep the organization's wheels turning. Leadership, academics, teamwork, project planning, and service all find a home in every Collaboratory project. 

"[...] it is important for someone to form relational trust between themselves and a team before diving into the work that God has called them to do."



THE COLLABORATORY FOR STRATEGIC PARTNERSHIPS AND APPLIED RESEARCH

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DOKIMOI ERGATAI



STUDENT VOICES *Interviewed by Autumn Bank '18*

What did you learn on your site trip during Summer 2017?



Dan Yeisley '18
Kenya

"No matter where people are from, they are simply people, and are happy to sit down and talk with you. Their differences should be celebrated as much as their similarities."



Dan Gallagher '18
Mexico

"Having an effective plan to go about your work is important, but so is being open to changes in that plan to allow for God to move in different ways."



Brenden Good '19
Nicaragua

"My trip showed me how to connect my major of engineering and my passion for sports to spread God's love and grace."



Paul Zwart '18
Ghana

"My team and I are thankful that through all of the setbacks and unforeseen problems that we encountered on our trip, we were still able to accomplish installing all of

CONTACT INFO



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messiah.edu/collaboratory

our systems, and were also able to talk with people in the communities we worked in. This allowed us to both interact with our target communities and learn how to better serve them through our project."

STAY CONNECTED: For regular updates and inside stories, follow us on these social media sites! We would love to hear your Collaboratory story.

- facebook.com/Collaboratory
- @mccollaboratory
- mccollaboratory
- The Collaboratory for Strategic Partnerships and Applied Research

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Other \$ _____

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(Please write "Collaboratory" on the memo line of your check. Please do not write individual's names on check.)

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MasterCard Discover AMEX

Cardholder name *as it appears on card*

Card Number

Exp. Date _____/_____

Signature

Option 2: Monthly credit/debit card

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\$ _____

Please include voided check. Choose withdrawal date below.

5th of month

20th of month

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Give to the area of greatest need

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Matching Gift Opportunities

I work for a matching gift company. My gift will be matched by (company name) _____.

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GET INVOLVED

I am interested in volunteering on a weekly basis as a project manager.

I am interested in being a reviewer for project effectiveness and management. *(1.5 hour, one-time commitment)*

Contact me for other service opportunities. *(Please fill out your contact information below.)*

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My contact information has changed:

Name:

Address:

Phone number:

Email:

I'd like to receive this newsletter by email. My email address is:

Please remove me from your mailing list.

Please mail this response card to:

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