# THE ELSEVIER FOUNDATION Annual Report 2018



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Dr. Uduak Okomo, Clinical Research Fellow for the Medical Research Council Unit The Gambia at the London School of Hygiene and Tropical Medicine, is one of the five winners of the OWSD-Elsevier Foundation Award for Women Scientists in the Developing World. She was recognized for her work in defining routes of transmission of infections to neonates. Her research has contributed to improved control of infections and better planning of health systems and resource distribution.

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Elsevier Foundation Board members at the 2017 Board meeting in Amsterdam. From left to right (back) Nikunj Jinsi, Hannfried von Hindenburg, John Danaher, Emilie Marcus (front) YS Chi, Geri Richmond, Beverly Malone, Suzanne BeDell, Ron Mobed.

C HOBBELINK Joyce/Elsevie



#### Youngsuk "YS" Chi

Chairman Elsevier Director of Corporate Affairs RELX President The Elsevier Foundation

"Working with our partners, we have reengineered our programs to harness the power of technology for diverse research ecosystems and global health."

### Foreword

The Elsevier Foundation strives to make our partnerships as relevant and effective as possible in advancing the UN Sustainable Development Goals (SDGs). In 2018, our Board reviewed the results of our first three-year, partnershipdriven programming cycle and reinforced our continued commitment to:

- Increasing access to science, health and tech education and opportunities for underserved youth and women.
- Strengthening research capacity in developing countries to address critical development challenges.
- Identifying opportunities where information technology can significantly improve health outcomes in underserved communities.

These focus areas and our Board's feedback have guided our efforts to compose a 2019 portfolio driven by three core principles: **embed technology**, **expand flagship project**s, and **boost visibility**. We have broadened our support of flagship partnerships for women scientists in developing countries, phased out more generic partnerships with the New York Academy of Sciences and others, launched new collaborations in diversity and analytics, and transitioned from a tech pilot to an embedded tech-enabled approach wherever possible. In addition, we have shaped our portfolio by:

• **Identifying partnerships** that fill an essential gap, are sustainable, and address needs where commercial players are ignorant or uninterested in the issues – all while being mindful of our limited scope and a project's relevance for commercial players.

• Actively partnering with other funders to leverage knowledge, reach, and resources. An example of this is our collaboration with the Swedish and Canadian development agencies to build capacity for women scientists in developing countries.

• In kind support: Drawing on RELX and Elsevier company expertise in technology and information analytics to support future projects.

• **Beware the hype**: Embedding tech as a means to reach our SDG goals, but not as an end in itself; and continue

broadening our knowledge of the "tech for dev" arena to scope new projects which offer clear deliverables.

• **Boosting visibility**: At your recommendation, we have developed a new Branding Strategy to help position the Elsevier Foundation as a non-profit that specializes in research, health, and diversity with an emphasis on tech expertise and funds. In 2019, the Elsevier Foundation name will appear in 8 vs. the 3 original partnership titles – more than doubling our naming rights for partnerships.

We are also addressing the Board's challenge to professionalize our evaluation criteria from monitoring outputs to measuring outcomes across our core themes. Working with Mission Measurement's Impact Genome Reporting Platform, we have piloted their rigorous, evidence-based, and standardized social outcomes measurement to enable efficient and clear reporting. Finally, in crafting our 2019 cycle of three-year partnerships, we have sought to be as ambitious as possible given our priorities and funding base. While we identified far more projects than we could hope to fund this year, we look forward to exploring these as viable options.

> 8<sup>th</sup> April, 2019 Elsevier Foundation Board meeting

Youngsuk "YS" Chi President, The Elsevier Foundation



Ylann Schemm

**Director** The Elsevier Foundation

"For us it's all about finding those synergies across partnerships: sharing best practice, embedding technology, tapping expertise within Elsevier, so we can do more."

### Who we are

#### WHAT WE DO

The Elsevier Foundation is a corporate not-for-profit 501(c) (3), funded by Elsevier, a global information analytics business specialized in science and health. Since 2006, the Elsevier Foundation provides over \$1 million USD a year in grants to knowledge-centered institutions around the world, which address the UN Sustainable Development Goals through tech-enabled innovations in health information, diversity in science and health, research in developing countries.

The Elsevier Foundation also offers a comprehensive matching gift and volunteering fund to enable employees to work with Foundation partners and support their communities.

#### HOW WE WORK

The Elsevier Foundation is governed by its Board which is comprised of 5 external and 6 internal or ex officio members representing Elsevier, the company and funding partner. Members serve 3 year renewable terms. Our Elsevier Foundation Board members hold a broad range of expertise and interest in corporate philanthropy across issues such as sustainability, development, innovation, diversity, education, research capacity building, and global health.

The Elsevier Foundation Board meets annually to provide strategic guidance of the Foundation's programming and governance.

### The Elsevier Foundation Board

The Elsevier Foundation is governed by a Board of 5 external and 6 Ex-Officio members. External Board members serve 3-year renewable terms and represent a broad range of expertise in sustainability, development, innovation, diversity, education, research and global health. Ex Officio members are leaders within Elsevier who are deeply supportive of the Foundation's mission. The President of the Board, YS Chi, presides over the annual meeting which provides strategic guidance on program priorities, new partnerships, emerging issues and best practices as well as sound ethical, financial and legal governance.



Yuko Harayama Former Executive Member Council for Science and Technology Policy Cabinet Office of Japan



Beverly Malone CEO National League for Nursing





Nikunj Jinsi Global Head International Finance Corporation Venture Capital group





Geraldine Richmond Presidential Chair in Science Professor of Chemistry University of Oregon

### Ex-Officio



Suzanne BeDell Managing Director Education, Reference and Continuity Elsevier



Kumsal Bayazit

**CEO** Elsevier

John Danaher President Clinical Solutions Elsevier







Márcia Balisciano Director Corporate Responsibility RELX

Youngsuk "YS" Chi Chairman, Elsevier Director of Corporate Affairs RELX President The Elsevier Foundation

Hannfried von Hindenburg Senior Vice President Global Communications Elsevier

### The Elsevier Foundation Team

On a day to day basis, the Elsevier Foundation is run by a small core team consisting of a director, program officer, and a specially appointed treasurer and legal counsel. In addition to annual programmatic funding, Elsevier offers funding to cover the administrative costs of running the Foundation and in-kind support through office space, design and media outreach and volunteer support as needed throughout the company.



Ylann Schemm Director The Elsevier Foundation Elsevier



Maria Markova Treasurer Elsevier



Domiziana Francescon Program Officer The Elsevier Foundation Elsevier



Kenneth R. Thomson II Legal Council RELX

# Our programs

Over the past few years, we have aligned our programs to key challenges in science, health and diversity identified by the UN Sustainable Development Goals. We have also recognized that technological solutions are increasingly playing a role in helping the world to tackle these. This has led us to evolve our approach into a tech-enabled, partnership-driven model allowing us to develop our knowledge and networks while facilitating closer, more sustained and impactful involvement in the work of these organizations.









#### **HEALTH & INNOVATION**

Information technology can significantly advance the delivery of healthcare in developing countries, addressing problems such as the high risk of maternal death across Africa and HIV/AIDS prevention and treatment. "Health & Innovation" directly supports organizations working to improve health outcomes in both the North and South through the innovative use of technology to disseminate health information.

#### **RESEARCH IN DEVELOPING COUNTRIES**

Only 2% of sustainability science research output is produced by developing countries, despite the fact that they are often the hardest-hit by climate change, food, energy and other scarcities. For many low-income countries, this so-called 'science poverty' limits the effectiveness and potential for science and innovation to be relevant to their needs. Our partnerships aim to widen access to academic knowledge and deepen the involvement of scientists in developing countries in SDG-driven research relevant to the issues they face.

#### **DIVERSITY IN STM**

The future of science requires a robust and diverse workforce drawn from all corners of society. Encouraging scientific, technical and medical careers among young people with severely limited educational resources and few professional role models is a particular challenge. To address this, we have expanded our longstanding focus on advancing women in science to include partnerships helping under-served youth receive greater exposure to science and health education.

#### MATCHING GIFT

To encourage generosity and community involvement, the Elsevier Foundation provides matching funds to charitable organizations that Elsevier employees personally support. We earmark \$200,000 to match employee's individual and group donations to eligible non-profit organizations around the world, as well as global disaster relief efforts.



© Amref Health Africa

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# **Our Partnerships**

**REPORTS FROM PARTNERSHIPS IN 2018** 



"We want to support MSF/ Doctors without Borders' mission to provide high-quality medical care to the most vulnerable populations. This work resonates well with the Elsevier Foundation's focus on supporting the United Nations Sustainable Development Goals."

YOUNGSUK "YS" CHI

President The Elsevier Foundation

### Health & Innovation

Information technology can significantly advance the delivery of healthcare in developing countries, addressing problems such as the high risk of maternal death across Africa and HIV/AIDS prevention and treatment. "Health & Innovation" directly supports organizations working to improve health outcomes in both the North and South through the innovative use of health information. We work in close partnership with the organizations which each address this in their own way.



#### **Doctors without Borders/Epicentre**

Doctors Without Borders/Médecins Sans Frontières (MSF) is a leading international organization delivering emergency medical aid to people affected by conflict, epidemics, disasters, or exclusion from health care. The Elsevier Foundation is collaborating with Epicentre, MSF's research and training partner, to support their Niger Research Center with in kind help and a \$300,000 grant over a period of 3 years, with a goal of building field-based research capacity to deliver better medical care worldwide.

RENEWED



#### Amref Health Africa - Innovate for Life

Supporting African entrepreneurs to develop home-grown innovations for health: this is the goal of Innovate for Life, an initiative launched by Amref Flying Doctors. With a grant of \$50,000, The Elsevier Foundation is proud to support Amref's goal to help early-stage entrepreneurs developing novel technological solutions. The Fund aims to bridge the gap between African entrepreneurs and international investors by offering deep subject matter knowledge, strong networks and access to funding.

RENEWED



#### Amref Health Africa - JIBU

Amref Health Africa is the largest African driven NGO committed to improving health and health care in Africa. AMREF Health Africa's JIBU program will use an \$80,000 a year over 3-year grant to scale their mobile nursing education pilot into a comprehensive program to provide targeted mLearning or mobile nursing education in Eastern Africa.

NO COST EXTENSION



#### Nurse Faculty Leadership Academy

Since 2008, the Sigma Theta Tau Nursing Honor Society (STTI), has created a rigorous leadership development curriculum enabling junior nurse faculty to develop the necessary skills to become successful leaders in nursing education. The Elsevier Foundation provides an annual grant of \$100,000 to support the NFLA contribution to reducing the global nursing shortage.

**FUNDING ENDED** 

# **Doctors without Borders** The Epicentre Niger Research Centre

In Niger, infectious diseases and child malnutrition are the principle causes of mortality. In 2009, Epicentre, Doctors without Borders' research and training arm, established one of its three research centers in Niger to develop a strong African driven research center, aiming to develop implementable solutions to current clinical and public health problems. The other centers are located in Paris and Uganda. Over the past ten years, Epicentre's Niger Research Center has worked to develop a strong research portfolio and build capacity to investigate epidemics, implement alert and monitoring systems, conduct clinical trials and prevalence surveys while working with Niger's Ministry of Health and evaluating the impact of their medical programs. However, Niger remains one of the least developed countries in the world with a poor academic, research and health infrasture. Our partnership focuses on building the skills, education and overall capacity of Epicentre's local staff to eventually run the Center autonomously. Key scientific staff have been able to present at Epicentre Scientific Days in Paris and Niger, travel for courses, trainings and conferences and build their networks outside of Niger. The program has stimulated their interest in professional growth and also enabled staff to take up short-term assignments in MSF programs and other research centers outside the country.

#### GOALS

• Provide opportunities outside of Niger for medical and scientific staff to receive additional training

• Encourage staff from Niger and surrounding countries to be mentored and to mentor others to sustain a vibrant research culture

• Provide opportunities to promote visibility and encourage discussion on most pressing issues

#### MILESTONES

•Medical and scientific staff training: two Masters degree candidates have received their degrees (Institut Pasteur and Bordeaux University). Two more scholarships will be awarded in 2019.
• Short courses in clinical trial monitoring, data management and statistics, laboratory techiniques and epidemiology have been achieved.

Senior staff provided **mentoring to medical and scientifc staff:** • Presentations at scientific conferences

- Presentations at scientific conferences
  Visits to research institutions in West Africa
- Participation in the West African regional networks

**Communication and visibility** is a core component to ensuring

the longevity of the center and ensuring policy uptake. The Elsevier Foundation supported a "Scientific Day" in Niger in January 2018 where results of research conducted by the Center were presented to national and regional partners.

#### CHALLENGES

Based on the most recent estimates 1.4% of the Niger population has access to the internet. Ensuring that research and staff keep pace with global changes as well as communication as a whole remains a significant challenge for the Center. They need to review and evolve their approach to technology in the coming years to meet the demands of the Research Center's growth.

#### FUTURE PLANS

Epicentre aims to focus on technological improvements in the coming years, at both an individual and insitutional level. Objectives include: enabling staff to navigate in a quickly changing tech environment, ensuring that research remains timely and rigorous, and conducting complext studies more efficiently.

"The support from the Elsevier Foundation has been instrumental: from trainings to opportunities to attend and present at conferences, to access to journals and latest research."

— **Rockyiath Makarimi**, Head, Monitoring Department, Epicentre Niger.





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# countries.

Above: Peer-learning during the process of measurement-taking in a research study at the Epicentre Maradi clinic in Niger. Left: Field activity coordinator, Abudl-Aziz Mamaty, discussing

community engagement strategies for

Since May 2014, Epicentre has conducted clinical trials for a new heat stable vaccine against Rotavirus, a devastating but highly preventable and treatable diarrheal disease. If proven safe and effective, this new vaccine could be a life-saving game changer for children in Sub Saharan

ongoing research studies.

#### Funding

\$100,000 per year 3 years, 2016-2018

#### In kind resources

• Courtesy access and training for core Elsevier products: ScienceDirect, Scopus, ClinicalKey, SciVal, Embase and Mendeley • Panel showcasing MSF/Epicentre at the African Health Agenda International Conference in Kigali, Rwanda, March 2019 supported by the Elsevier Foundation on African-driven health care solutions.

#### Media coverage



# Amref Health Africa Innovate for Life

An increasing number of African countries combine young populations with political stability, economic growth and robust internet infrastructure—ideal conditions for creating new markets and raising investor interest. But the challenges, including highly regulated healthcare systems, burgeoning populations, as well as investor bias towards renewable energy and agriculture, are not minor. So how do talented African health entrepreneurs evolve their ideas in environments with few funders and weak networks? Innovative for Life, Amref Health Africa's new accelerator for East African health entrepreneurs addresses this gap by offering skills building, networks and access to seed funding.

The Innovate for Life Fund was launched by Amref in May 2017 with the Elsevier Foundation serving as one of the early adopters and funders of the program. Innovate for Life focuses on the 'missing middle': entrepreneurs with employees that are too large for microcredit, but still too small for traditional commercial investors. Amref brings 60 years of African healthcare knowledge and deep local and international networks to the accelerator.

#### **MILESTONES**

• In 2018, Innovate for Life received 308 applications from across30 African countries from which to choose its 2nd cohort.

• A final cohort was chosen by panels of African health stakeholders, investors, entrepreneur and subject or country experts.

• The cohort consisted of 6 entrepreneurs from Nigeria, Uganda, Zimbabwe and Kenya.

• Two 'intensive weeks' were held in Nairobi in September and November 2018, while a final training week for the top 3 was held in March in Rwanda, in combination with Amref's international AHAIC conference.

• During the training weeks, the entrepreneurs received mentoring on both health and business-related topics (negotiation skills, linking with national health strategies, measuring impact, etc.)

• Networking opportunities were offered with the Ministry of Health, Global Innovation Fund, GSK, Oracle, Amref Enterprises and several African entrepreneurs who could provide support for specific subjects.

• Amref offers follow up support to help entrepreneurs further strengthen their business plans or develop partnership proposals (some with Amref itself).

#### CHALLENGES

While the current cohort of entrepreneurs is not yet mature enough for full scale investment, they need capital to grow and depend on grants and award funding to do so. Unfortunately, writing proposals is time consuming and takes the entrepreneurs' focus away from increasing their client base and revenue. It also poses a threat: it could take them to where the donors are instead of where the market is.

#### **FUTURE PLANS**

The Innovate for Life team have been approached by several organizations interested in partnering including the Global Disability Fund and the WHO Innovation Challenge. A proposal has been submitted to support the Africa-focused ventures of the Grand Challenge Canada program. The Elsevier Foundation will explore volunteering opportunities with Innovate for Life for employees with health tech business skills.

"We want to bring the entrepreneurs to meet the NGO people and create a nucleus of energy at the centre. That brings the innovation and creates something that outlives both and becomes bigger than the two combined."

— Githinji Gitahi, Group CEO, Amref Health Africa





© Amref Health Africa





"Diabetes is a silent killer. Many people are affected, and they don't even know it, which is why we built this tool." said Paul Mugambi, Founder of Baobab Circle (first from right in the picture above). Paul had the opportunity to present Baobab Circle, a system that enables users to get customised updates to manage their health, at the Elsevier Foundation panel "Catalyzing African Health Tech Solutions in Africa " at AHAIC in Kigali, Rwanda, March 5-8.

#### Funding

\$50,000 per year 2 years, 2017-2018

#### In kind resources

We will be exploring opportunities to donate time and resources from Elsevier employees in 2019.

#### Media coverage



# Amref Health Africa Jibu Nursing App

Common challenges faced by nurses in Africa include acute shortages, skills-mix imbalances, retention, motivation and limited access to education and training. To tackle these issues Amref, an African-led NGO based in Kenya, is using innovative approaches to build the capacity of health workers through e&mLearning. In 2013, Amref in partnership with the Kenyan Ministry of Health, Rutgers University, the Nurses Council of Kenya and several training institutions, piloted Jibu: a mobile learning app to support the professional development of nurses and midwives. Jibu is Swahili for "answer" and is primarily aimed at capacity building, offering a costeffective way to make continuous education and collaboration widely available to nurses through their mobile phones. With support from the Elsevier Foundation in 2016, Jibu was able to ramp up to a fullscale project across East Africa. During phase 1, over 10,000 nurses and midwives in 3 countries enrolled in the application, signalling a strong desire to access credible, up-to-date learning materials.

To achieve scale and quality in training, Amref is now upgrading its learning management system into an integrated e-Campus platform which will serve as a one-stop shop with coordinated e&mLearning solutions such as Jibu. The e-Campus will offer continued online and offline access and enable the scaling of health training and information to health workers across Sub Saharan Africa.

#### GOALS

Develop additional pedagogically sound and accredited Continuous Professional Development content to ensure continuity.
Further enhance the learner experience in collaboration with trainers, ministries of health and nursing regulators.

• Integrate Jibu within the Amref e-Campus

• Explore business revenue generation for continuity and sustainability

#### MILESTONES

Phase 2 of the project was designed to improve Jibu's functionality, while maintaining its compatibility with feature phones. Improvements include: the style guide, features, design and wire-frames, engaging stakeholders, and development of new content areas.

#### CHALLENGES

• The initial project focused solely on feature phones. An increased penetration of ICT in Sub Saharan Africa, with an estimated growth

rate 50% higher than global average, means that more and more health workers own smart phones. This issue as well as the need to integrate into the Amref e-Campus required a shift in Jibu's rollout strategy.

• Delay incurred by local vendors unable to meet development challenges and a midprogram switch to international developers.

#### FUTURE PLANS

• A no cost extension to April 2020 has been granted to enable the integration of Jibu into the Amref e-Campus as well as time to develop and test business models to ensure Jibu's sustainability in the future.

• The app technology will also be used for other Amref audiences and learning needs targeted through the platform.

• The EF team will work with Jibu to support the rollout and launch of the app in 2020.

"We believe that better health starts with a welleducated and informed workforce. In order to decrease the number of unnecessary deaths of mothers and children in Africa, it is vital to invest in

### human resources for health."

— **Githinji Gitah**i, Group CEO Amref Health Africa





© Amref Health Africa



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Above: a nurse in Kenya utilizes Jibu on her phone during the phase 1 of the project.

Left: eLearning students during the face to face session in Mengo School of Nursing and Midwifery. "There are very few opportunities for continuing medical education," said Mercy, a Health Worker from the Kakululo Dispensary, in Kenya. "Sometimes the only ones are organized by the county health management team, which could even be once per year and take about 10 minutes only."

#### Funding

\$80,000 per year 3 years, 2016-2018

#### In kind resources

Panel showcasing Jibu at the African Health Agenda International Conference (AHAIC) in Kigali, March 2019 supported by the Elsevier Foundation on Africandriven tech health care solutions.

#### Media coverage



## Nurse Faculty Leadership Academy

Surprisingly, the global nursing shortage is less about a lack of motivated students than qualified teachers. The Nurse Faculty Leadership Academy (NFLA) aims to ease the transition for the next generation of nurse faculty from practice to teaching. The program, which has been supported by Elsevier since 2009, was designed for aspiring leaders in nursing education and provides an intensive 20-month leadership development curriculum constructed on intellectual and experiential learning opportunities facilitated by distinguished faculty. Emerging leaders at schools of nursing who have served 2 to 7 years as full time faculty are eligible to apply to become a Scholar. Each Scholar works with a recognized Leadership Mentor and Faculty Advisor throughout the academy and completes three distinct curriculum domains: Individual Leadership Development; Advancing Nursing Education Through the Leadership of a Team Project; and Expanding the Scope of Influence Within the Scholar's Organization, Community, and Profession. Since launch, the Elsevier Foundation has supported a pilot and 3 NFLA cohorts with 18 scholars who have successfully completed the Academy. All Scholars reported taking on at least 1 new leadership position within their organization, community, or the nursing profession.

#### Goals

- Facilitate leadership development of the Scholars.
- Promote nurse faculty retention and satisfaction.
- Foster academic success of the Scholars
- Cultivate high-performing and supportive environments in academe.

#### Milestones

• April 2018: Exhibited at National Organization of Nurse Practitioner Faculties Conference in Indianapolis, Indiana, USA, and obtained serious inquiries about the NFLA.

• April 2018: Exhibited at ATI National Nurse Educator Summit in Salt Lake City, Utah, USA, and obtained serious inquiries about the NFLA.

• May 2018: Promoted the NFLA and networked with potential applicants at the Quality and Safety Education for Nurses (QSEN) International Forum in Bonita Springs, Florida, USA.

• July 2018: An NFLA special educational session was held at Sigma's 29th International Nursing Research Congress in Melbourne, Australia. • August 2018: Dr. Gwen Sherwood, Faculty Advisor, presented a session about the NFLA at the Nursing Alliance Leadership Academy (NALA) fall conference organized by Nursing Organizations Alliance (NOA) in Louisville, Kentucky, USA.

#### Future plans

As part of their continuous process improvement review, healthcare systems today seek more rapid delivery of educational development. From the successful decade long NFLA program, we have been able to prove that emerging nurse faculty need leadership development opportunities that utilize this approach.

"The support from the Elsevier Foundation has changed the lives of the nurse educators who have completed the program. Many have been promoted into higher level positions as a result and they have been able to leverage what they learned in the Academy to improve their nursing programs with innovative ideas and approaches."

— Elizabeth Madigan, CEO, Honor Society of Nursing, Sigma Theta Tau International



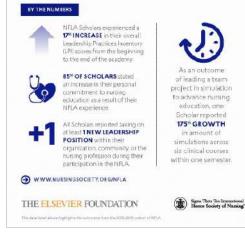


Christopher Capot, Elsevier Director of Communications, poses with NFLA Faculty Advisors and Karen Beranek from Sigma after becoming an Honorary Member of Sigma Theta Tau International Honor Society of Nursing.

C) NFLA

#### NURSE FACULTY LEADERSHIP ACADEMY (NFLA) OUTCOMES

The Nuise Faculty Leadership Academy is an international leadership development experience designed to facilitate personal leadership development, foster rademic career surcess, promote nuise faculty retention and satisfaction, and cultivate high performing, supportive work environments in academe.



"I can honestly say that I owe my career to NFLA. Since 'graduating' in 2013, my role has changed from that of a faculty member to Chair of a Division. I continue to use knowledge learned in NFLA as I grow new programs, hire faculty, and set the vision for my departments. I still connect with members of NFLA and appreciate the network of colleagues that has formed because of participation. NFLA is life-changing!"

#### CAROLYN HART

Associate Professor and Chair, Wilson College

#### Funding

The funding period has ended after supporting 3 cohorts and a pilot program totalling over \$1 million USD.

#### Media coverage





TWAS fellow Thomas Egwang working with a colleague at Med-Biotech Laboratories, Kampala, Uganda. The Elsevier Foundation sustainability partnership funds travel grants for TWAS fellows, visiting experts and case study competitions.

© TWAS

# Research in Developing Countries

Only 2% of sustainability science research output is produced by developing countries, despite the fact that they are often the hardest-hit by climate change, food, energy and other scarcities. For many low-income countries, this so-called 'science poverty' limits the effectiveness and potential for science and innovation to be relevant to their needs. The Research in Developing Countries program seeks to redress the balance with four key partnerships designed to widen access to academic knowledge and deepen the involvement of scientists in developing countries in SDG-driven research relevant to the issues they face on a daily basis.



#### The Elsevier Foundation Green and Sustainable Chemistry Challenge

Chemistry is an inextricable part of the world we live in—97 percent of our manufactured goods are made through processed chemicals. The Challenge encourages scientists to use green and sustainable chemistry solutions to tackle some of some of the developing world's greatest challenges whether in water, sanitation or energy

RENEWED



#### The African Journals Partnership Program

Local research is essential for local challenges. Research without Borders partners up Elsevier volunteers with the African Journal Partnership Program, an NIH supported research capacity building initiative for African health journals. Through in depth training and mentoring, we aim to boost the impact, effectiveness and visibility of African research for the African health context.

RENEWED



#### The World Academy of Sciences

Global institutions and meetings are vital for knowledge exchange, strategy, policy and talent development. The TWAS North South Collaboration in Sustainability aims to boost the participation of researchers in developing countries in sustainability science through annual conferences, travel fellowships, case study competitions and visiting experts in sustainability.

NO COST EXTENSION



#### MLA/Librarians without Borders

Making research available in developing countries is not sufficient to bridge the digital divide. Since 2007, Librarians without Borders has worked to fill that gap providing information literacy training which forms the backbone of Research4Life. By creating a new cadre of dedicated R4L trainers, LwB is working to scale up countries' ability to strengthen their health sciences information capacity with qualified librarians, technological infrastructure and access to quality information.

# The Elsevier Foundation-ISC3 Green and Sustainable Chemistry Challenge

Across every society, chemistry is part of the fabric of every aspect of our lives. The Elsevier Foundation Green & Sustainable Chemistry Challenge taps the major role that chemists play in developing medicines, fertilizers, and other chemicals needed to resolve critical environmental and climate issues in developing countries. Jointly run with Elsevier's chemistry journals team, the Challenge aims to raise awareness around how chemistry can help us to make crucial progress towards the SDGs.

The Challenge invites applicants from around the world to submit ideas for chemistry solutions toaddress sustainability challenges in low income countries – energy, water, waste reduction, recyclability, chemistry, agriculture, medicine and more. The 1st prize challenge winner receives a  $\in$  50,000 award, and the 2nd prize winner receives a  $\in$  25,000 award.

#### Goals

• Highlight innovative chemistry projects that address issues in developing countries.

Have the Top 5 finalists pitch their projects at the annual Elsevier Green & Sustainable Chemistry Conference in Germany, creating critical visibility for an emerging community in the chemistry world.
Encourage sustainability science, international collaboration and scientific exchange in developing countries.

#### Milestones

The 2018 winners demonstrate how green and sustainable chemistry offers tangible ways to support the UN SDGs: Dr. Prajwal Rajbhandari of Nepal won 1<sup>st</sup> prize for his project "Guava leaves as natural preservatives for farmers of Nepal" that uses a guava leaf extract to minimize post-harvest food loss affecting smallholder farmers.

Dr. Alessio Adamiano, an Italian researcher, received the 2<sup>nd</sup> prize for "phos-FATE: Empowering fishing communities for climate change", working to improv resilience amongst small-scale fishing communities in Senegal by producing fertilizer from recycled fish waste.

• With 74K Tweet impressions, this is the most visible event for the Elsevier Foundation social media reach: high numbers are achieved when we collaborate with Elsevier colleagues, tapping their chemistry communities and expertise.

#### Future plans

In 2019, the Challenge is partnering with the newly launched, German-based intergovernmental Organization, ISC3 (the International Sustainable Chemistry Collaborative Centre) to expand its reach and build a community across multiple sectors ISC3 will support third innovation prize of €25,000 recognizing start-up potential in the field. The Challenge will be renamed: The Elsevier Foundation-ISC3 Green and Sustainable Chemistry Challenge.

• The 2019 winners will be announced at the Elsevier Green and Sustainable Chemistry Conference in Dresden, 5-8 May 2019. Two environmental microbiologists and winners of the 2019 OWSD Elsevier Foundation Awards for early career women scientists in developing countries have been invited to present their research at the GSCC: Tista Prasai Joshi of the Nepal Academy of Science and Tabassum Mumtaz of the Bangladesh Atomic Energy Commission.

### "The success is overwhelming, underlining the huge potential chemistry has to contribute to United Nation Sustainable Development Goals."

— Klaus Kümmerer, Director, institute for Sustainable and Environmental Chemistry, Leuphana University Lüneburg and Chair, Elsevier Foundation Green and Sustainable Chemistry Challenge Jury Panel





The winners of the 2018 Elsevier Foundation Green and Sustainable Chemistry Challenge: first-prize winner Prajwal Rajbhandari (left), and runner-up Alessio Adamiano.

In 2019 the Elsevier Foundation and Elsevier Chemistry Journals have joined forces with ISC3 to promote capacity building in the field of green and sustainable chemistry in developing and emerging countries. The new Innovation Prize will be awarded during the annual Challenge competition at the Green and Sustainable Chemistry Conference which hosts a multisectoral forum to enable long term viable and globally applicable contributions of green and sustainable chemistry to the UN SDGs. Left to right: Friedrich Barth (Managing Director, ISC3), Ylann Schemm (Director, The Elsevier Foundation) and Rob van Daalen (Senior Publisher Chemistry Journals, Elsevier).

### Funding

\$27,660 in 2017 \$55,320 in 2018

#### In kind resources

• Travel grants and free registrations to Elsevier's Green and Sustainable Chemistry Conference for the 6 member judging panel; additional free registrations for key student reviewers of the Challenge

#### Media coverage



### The African Journal Partnership Program Research without Borders

Invaluable African research is often not effectively disseminated either to African researchers or to a wider international audience. To boost the impact and discoverability of African health research, the Elsevier Foundation founded "Research without Borders", a skills-based volunteering partnership with the African Journal Partnership Program (AJPP) tapping Elsevier expertise in publishing, marketing, operations, technology and strategic guidance. AJPP is a high-profile mentoring program supported by the US National Library of Medicine and NIH's Fogarty International Center and coordinated by the Council of Science Editors. AJPP pairs 10 African health journals in Ghana, Malawi, Ethiopia, Sierra Leone, DRC, Uganda, Mali, Kenya, Rwanda and Zambia with leading US and UK health journals including The Lancet, The Annals of Internal Medicine, BM], and The New England Journal of Medicine. With a grant of \$204,000 over the course of 3 years, Elsevier volunteers provide supplementary training to the African journals for a period of 1-4 weeks in country. The journals include: African Health Sciences, Annals of African Surgery, Ethiopian Journal of Health Sciences, Ghana Medical Journal, Malawi Medical Journal, Rwanda Journal of Health Sciences, Annales Africaines de Medecine, Mali Medical and, most recently, The Health Press Zambia.

#### Goals

• Strengthen the impact of African journals by improving quality and discoverability through targeted mentoring teams

- Improve visibility of African research by working to submit applications to Scopus, MEDLINE and other scholarly indexes
- Facilitate collaboration and knowledge exchange between African editors and their counterparts
- Support the training of authors, reviewers and journalists in Africa
- Build journal websites, evolve editorial board practices and
- improve the pool of authors and reviewers
- Develop strategic business plans, usually with a sustainable open access business model

#### Milestones

In 2018, 13 Elsevier volunteers contributed a total of 27 weeks of time to share expertise with journals across 8 African countries. In 2016-17, 21 volunteers contributed 52 weeks of volunteering time.
In Oct 2018, we hosted the Francophone team from the Mali Medical journal for a week-long training session in Paris with 4 volunteers from the Paris and London offices. A second

Francophone workshop for the DRC's Annales Africaines de Medecine journal team was held during the AHAIC conference in Kigali, Rwanda in March 2019.

• Volunteers Anne Roca (*The Lancet Global Health*), Christine Sempe and Yasmina Ouharzoune (Elsevier) joined the AHAIC conference delivering research capacity building workshops and panel discussions on moving research to policy and African health tech solutions.

#### Future plans

• RwB volunteers Connie Villalba (Rwanda, 2018) and Christine Sempe (Paris and Rwanda, 2018) will attend the AJPP Annual Meeting in Columbus, OH, May 2019.

• Expand RwB to offer broader volunteering opportunities with other key Elsevier Foundation partners across our core focus areas.

"The progress of the AJPP journals has been substantial, with the journals all having raised their visibility online for readers and authors in Africa and worldwide, and the editors taking leadership positions in international organizations."

— **Annette Flanagin**, Co-Director, African Journal Partnership Program





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Volunteers Anne Roca (*The Lancet Global Health*), Lauren Ashby, Christine Sempe and Yasmina Ouharzoune (Elsevier) spent a week working with the editors of the *Mali Medical* journal in the Elsevier's Paris office in October 2018. The Mali team also had a chance to meet with several other colleagues from the Elsevier publishing teams, as well as to present their experience during an office-wide townhall.

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#### Funding

\$60,000 per year 3 years, 2016-2018

#### In kind resources

Provide AJPP editors with access to ScienceDirect, Scopus.and SciVal
Identify opportunities for the editors to participate and present at international conferences: Dr. Piu Kabututu (Annales Africaines de Mededice) co-hosted an author workshop at AHAIC in Kigali in March 2019 with Elsevier volunteer Christine Aime-Sempe.

#### Media coverage



## The World Academy of Sciences North South Collaboration in Sustainability

The collaboration between The World Academy of Sciences (TWAS) and the Elsevier Foundation was spurred by the launch of the UN Sustainable Development Goals in 2015. While sustainability science is growing very rapidly, so is the North-South research divide in these fields—only 2% of sustainability research is contributed by researchers in developing countries. The TWAS North-South Sustainability Collaboration aims to boost this number by engaging scientists in solutions that work best for their societies. Priority areas include: climate change, renewable energy, quality education, sustainable agriculture, food security, green chemistry, environmental degradation, pollution, biodiversity and gender equality.

#### Goals

Over the past 4 years, the Collaboration has consisted of 4 goals: • The Sustainability Visiting Expert program supporting experts exchanges to institutions in developing countries.

• A sustainability research case study competition for TWAS and OWSD fellows in 2017.

• Travel grants for South-South PhD and Postdoc Fellowships studying sustainability science.

• A Sustainability Symposium at the TWAS Annual Meeting.

#### Milestones

• Over a 3-year period, The Sustainability Visiting Expert Programme made 18 awards with a 50% gender balance. 70% of experts were hosted in least developed countries (LDCs). Reports from experts and hosts indicate that this program contributed to capacity building and represents a significant action in line with the SDGs. In 2018, 5 of the 8 awards were South-South exchanges between middle- and low-income countries.

• Travel grants were provided to early-career researchers working in sustainability science selected by TWAS for their South-South Fellowship Program. In 2018, 18 travel grants were given with 8 from LDCs and 27% going to women scientists.

• In November 2018, the Sustainability Symposium was held at the TWAS Meeting in Trieste, Italy, highlighting the role of data analytics in the implementation of the SDGs and included distinguished experts: V.S. Subrahmanian, The Dartmouth College Distinguished Professor in Cybersecurity, Technology and Society, Professor Tshilidzi Marwala, Vice-Chancellor and Principal of the University of Johannesburg and Maria de Kleijn, SVP Research Intelligence, Elsevier. The Symposium was considered a critical addition to the meeting convened for TWAS fellows, science ministers and presidents of universities and science academies.

#### **Future plans**

In 2019, TWAS will tap remaining funds to support a June 2019 African data analytics workshop with the TWAS Young Affiliates, the Nigerian Academy of Sciences and the Nigerian Young Academy (NYA): "Big Data, Analytics, and Machine Intelligence for Financial, Health and Environmental Management Inclusion in Developing Countries".

"These young scientists are addressing specific challenges with sustainable solutions. This creates immediate solutions, and also reinforces the rising awareness of sustainability science in the developing world."

--- Romain Murenzi, Executive Director, The World Academy iof Sciences





From left to right: Bai Chunli (President of the Chinese Academy of Sciences and Professor of the CAS Institute of Chemistry) Romain Murenzi (Executive Director of TWAS) and Ylann Schemm at the November 2018 TWAS Meeting in Trieste, Italy.





©TWAS

Finnish microbial ecologist Merja Itävaara, far left, visited Yangon University in Yangon, Myanmar, as part of the Elsevier Foundation-TWAS Sustainability Visiting Expert Programme. Her research is focused on how ecosystems function in relation to microbes. While in Myanmar, Itävaara gave four lectures on environmental biotechnology and biodegradation. Her lectures also included discussion on how to write a grant proposal to secure funding.

#### Funding

\$80,000 per year 3 years, 2016-2018

#### In kind resources

• Free registration for TWAS fellow to Elsevier's Green & Sustainable Chemistry Conference

• Author workshop for TWAS Young Affiliates Conference in Brazil August 2017 by Elsevier publisher.

#### Media coverage





### The MLA partnership Librarians without Borders

Before the digital revolution, practicing evidence based health care, policymaking or education in developing countries was virtual impossible. In 2001, that slowly began to change, first with Hinari, WHO's biomedical free and low cost access to research program and later with open access and Research4life (R4L) which now comprises 5 programs including Hinari, 80,000 peer reviewed resources, 8,000 registered institutions and 200 publishing partners. Despite these gains in access however, many researchers, doctors, librarians and policymakers in developing countries still suffer from for a lack of information literacy. How do you make use of critical resources if you lack the skills to find them? The Librarians without Borders "E-library Training Initiative" (LwB) was founded in 2007 by the Medical Library Association (MLA) and supported by the Elsevier Foundation. It is based on the principle that the key to improving global health is the ability of each nation to build and strengthen their health sciences information capacity with adequate technological infrastructure and access to quality information. Our longstanding partnership supports a corps of librarian trainers through annual training grants and faceto-face train the trainer activities for the Research4Life programs.

#### Goals

• Continue to increase the number of trainers based at R4L registered institutions, including health information professionals, researchers and lecturers in multiple disciplines, and post-graduate and medical students whose activities will result in a cascading effect on users from their institution.

• Continue to build the R4L repository of learning and training with timely and relevant materials, a critical and ongoing activity.

#### Milestones

• 3 workshops were conducted in Egypt, Bosnia & Herzegovina and Bhutan, plus a Hinari users e-learning course; trained approximately 150 individuals.

Regarding the 2018 awards, 2 recipients are MLA members; 2 are from R4L registered institutions. In total, 2 training programs have been completed including 2 previously (2017) funded activities.
2016-2018: funded 12 LWB/EF Research4Life grants that resulted in workshops in 11 countries and 2 video training projects.
2016-2018: increased the pool of trainers within MLA and R4L registered institution to create a community of global health informationists who can support R4L training activities

#### Future plans

• Encourage the submission of grants by previous recipients to build further on the activities and contacts that have been established

• Create and maintaining a robust learning repository and toolkits, possibly with Cornell University BOX platform

• Define competency domains and performance indicators for the Hinari audience to be used to evaluate learner performance and measure impact

• Coordinate activities with the Digital Access to Research project which was launched in June 2019 as part of the United Nations Technology Bank

"The initiative has impacted health sciences research, training and clinical care around the world. Health sciences librarians are being inspired as leaders and agents of change to truly make a difference through the power of information."



<sup>—</sup> **Gurpreet Rana**, MLA Librarians without Borders Committee



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© MLA

"The Hinari/Research4Life Training Award allowed me to collaborate and to successfully deliver training workshops to librarians, researchers, faculty members, students, and clinicians in Vietnam. The workshops provided participants with an invaluable on-site training experience and also uniquely targeted an underserved group of health professionalspharmacists. The benefits of this program were highly rewarding for all and went beyond education alone – in deepening our library relationships to develop future and more advanced training. '

**iRENA DRYANKOVA-BOND** Library Manager, Massachusetts College of Pharmacy and Health Sciences

Librarians without Borders® coordinator Lenny Rhine with participants of the 2 Train the Trainer workshops in Bhutan, which was joined by about 90 attendants and included both theoretical and hands-on activities.

#### Funding

\$45,000 per year 3 years, 2016-2018

#### In kind resources

• Ylann Schemm has chaired the Research4Life Communications team until Dec 2018, ensuring the development and communication of a training portal on the R4L website ensuring the visibility of LWB resources developed through the grant. As of January 2019, Domiziana Francescon has assumed this co-chair role along with an FAO representative.

• Elsevier prints a substantial amount of LWB materials for dissemination across workshops and the annual MLA meeting.

#### Media coverage





"The opportunity to become a scientist or technology expert should not depend on a young person's economic status or cultural background. Together with colleagues at Imperial, we're looking forward to having some of our own Elsevier technology staff serve as coaches to help guide the students and to let them see how accessible and rewarding such careers can be."

RON MOBED Former CEO Elsevier

### **Diversity in STM**

The future of science requires a robust and diverse workforce drawn from all corners of society. Encouraging STM careers among young people with severely limited educational resources and few professional role models is a particular challenge. To address this, we have expanded our focus on advancing women in science to include new partnerships helping underserved youth receive greater exposure to science and health education.

<b>Imc</b> weekendschool	<b>IMC Weekend School</b> The IMC Weekend School offers a science and health enrichment program to underserved 11–13 year olds in Amsterdam. Our partnership fosters inspiring exposure to science and health education for children of largely immigrant backgrounds, encouraging STM careers but also promoting positive professional role models.	RENEWED
Imperial College London	Imperial College London Imperial College London (ICL) has developed the White City Maker's Challenge program offering 14–18 year olds from White City, one of London's most disadvantaged communities the opportunity to engage with cutting-edge science, 3D printers, engineering and design workshops, afterschool clubs, mentoring and project teams.	RENEWED
The New York Academy of Sciences	<b>The New York Academy of Sciences</b> The New York Academy of Science's highly successful After-School STEM Mentoring Program is designed to reach the city's most underserved middle school children in remote schools across the 5 boroughs by training NY's early career STEM graduate students to serve as mentors.	FUNDING ENDED
Contraction of the second seco	<b>The Organization for Women in Science for the Developing World</b> Since 2010, the OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World recognizes the achievements of researchers who have made significant contributions to the advancement of scientific knowledge.	RENEWED
PORTIA gender and science	<b>Portia</b> Building on past New Scholars grants, Portia, the architect of the Gender Summits, and The Elsevier Foundation have developed a strategic partnership to promote the understanding and adoption of gender- sensitive approaches, and advance sex and gender sensitive research, innovation and development.	FUNDING ENDED
Data Kind	<b>DataKind</b> Nonprofits don't always realize the power of the data they have and how it can be tapped to deliver powerful insights into their goals. Datakind is an organization working with both data scientists and social sector experts to address some of the world's biggest challenges. The Elsevier Foundation is supporting Datakind's DataDives: a weekend of data crunching	

RENEWED

matching scientists with nonprofits.

## The IMC Weekend School Amsterdam Science & Health Partnership

Encouraging careers among young people from communities with severely limited educational resources and few professional role models is crucial. The IMC Weekendschool (IMC) offers an enrichment program for children in underprivileged neighborhoods across 10 of the largest cities in the Netherlands. Over the course of a 3-year program, professionals, teachers and volunteer coaches introduce 11-13 year old students to a wide range of disciplines including science and health while helping them to connect more fully to society and ultimately improve their prospects. They receive communication skills, conflict resolution and all-round character development training. Since 2015, the Elsevier Foundation has supported the science and health programs for the Amsterdam West-based Weekend School.

Research conducted by Dr. H. G. van de Werfhorst, a methodological sociologist at the University of Amsterdam, over a period of two and half years demonstrates that students who followed the IMC Weekendschool program have been able to develop more self-confidence, a broader view on future career prospects and greater awareness of their social capabilities and strengths than their classmates in primary school who served in the control group.

#### Goals

• Introduce students to a wide range of disciplines (15 on average) through classes taught by volunteer professionals; provide additional soft skill training in presentation, cooperation, research, debate and conflict resolution and an all-round character education over the course of IMC's three year program.

• Encourage careers among young people from communities with severely limited educational resources and few professional role models.

• Improve the outlook, self-confidence and prospects of underserved children, helping them to develop non-cognitive skills and acquire a sense of belonging to society.

• Promote positive interaction between students, teachers and volunteer coaches, overcoming cultural and class boundaries.

#### Milestones

• In 2018 IMC Weekendschool West had an average of 120 students. The percentage of female students is around 60%.

• The Elsevier Foundation supported 2 weekend school modules in science and health in 2018 resulting in 7 Sunday classes for a total

of 84 students.

• 3 Elsevier volunteers participated in one of the Sunday classes. Some employees participated more than once.

• The Elsevier Foundation grant contributes to ca 12% of the annual €150,000 IMC budget in Amsterdam West.

#### Future plans

The Partnership has been further reinforced in 2019, supporting the development of a new technology module in 2019. Elsevier technology experts and volunteers will help to create a technology/ data analytics curriculum that will enable students to gain a better understanding of big data and what kind of skills they need to develop in this field. IMC will aim to make the modules as relevant to the students as possible in their everyday lives.

"If you don't experience positive input on how to build your future at home or at school, it's really hard to stay positive. We can change that by building an inspiring environment for children to meet with people doing interesting work in society."

— Heleen Terwijn, Founder, IMC Weekend School





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© IMC Weekend School

IMC Weekend School alumna Maryam Lyousoufi (24) teaches current students (10-14) about the field of medicine. Every year, students have the chance to discover and learn about different healthcare professions as part of their 3-year curriculum, across more than 15 subject areas. A growing number of alumni are now providing guest lectures about their own field of study or work, becoming role models for the next generation of budding doctors, nurses, pharmacists and technicians.

Left: 2<sup>nd</sup> year students learn from a doctor how to threat patients in one of the courses Medicine at the hospital OLVG West.

#### Funding

\$25,000 per year 3 years, 2016-2018

#### In kind resources

Elsevier technology experts and volunteers will help to create the new technology/ data analytics curriculum
Elsevier has hosted regular volunteer outreach sessions at the Amsterdam office raising awareness about the IMC Weekend School and recruiting volunteers.

#### Media coverage



# Imperial College London White City Maker Challenge

Imperial College London has pioneered a new form of outreach at White City, aimed at inspiring teenagers from disadvantaged, urban backgrounds to experience and interact with science through their own creativity. The Makerspace Challenge Program offers young people aged 14-18 from one of London's most disadvantaged urban communities the opportunity to engage in a creative, innovative and entrepreneurial program designed to build practical and soft skills by taking an idea to working prototype, and potentially beyond.

The Makerspace builds on decades of Imperial's more traditional STEM outreach, aimed at inspiring students regardless of background to consider STEM subjects at university. The program is based in White City, where ICL has established their new biomedical campus, and is situated in the larger "Invention Rooms" center which also houses ICL's advanced hackspace and a community engagement space. Participants develop a wide range of vocational technical skills using a variety of tools and equipment including traditional as well as cutting edge technology, such as 3D printers, laser cutters and scanners. In addition, they receive practical business skills training from the Imperial Business School on communication and negotiation, strategic planning, financial management, marketing and sales.

#### Goals

• Provide creative design and technical opportunities for local young people that is outside of their normal daily experience.

- Develop technical vocational and business skills.
- Develop critical life skills necessary for employment, including team-working, problem-solving, presenting and effective communication.
- Support personal growth and soft skills, including confidence and self-esteem.
- Provide opportunities for local young people to consider alternative career routes.
- Explore Elsevier volunteer opportunities for employees.

#### Milestones

• The Makerspace Challenge was attended by 84 participants, of which 53% male and 47% female, from a broad range of ethnicities across 26 different schools.

• Based on requests for follow up opportunities, many alumni now return on a regular basis to continue experimenting and "making".

• Imperial has also helped facilitate several participants with work placements at local businesses.

#### Challenges

The biggest challenges have been with recruitment and teacher engagement. The Makerspace had previously only targeted science teachers, but are broadening their approach to include career and enterprise advisors as well as Student Achievement Leads to enable a more holistic approach to recruitment.

#### **Future plans**

• Provide drop-in sessions, tasters and school tours to engage teachers and encourage local young people to view the space and the opportunities available before applying to the programme.

• Work with the Hammersmith and Fulham Boroughs to gain accreditation for the programme that will enhance alumni CV's and support their career progression.

• Develop a program of work placements for graduate participants with local businesses.

"We need to listen to their needs, tap into their talents, and – crucially – open our doors. The impact of this will be transformative, boosting opportunity, aspiration and innovation in White City and beyond for decades to come."

— Maggie Dallman, Associate Provost of Academic Partnerships, Imperial College London





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Above: An Imperial College London mentor with a Makerspace participant in the "Invention Rooms": the zone blends an advanced university hackspace with a community engagement area and a unique "Reach Out Makerspace" for local young people.

Left: Kate Mulcahy, Makerspace Programmes Manager, interacts with young participants of the Makerspace during a mentoring session.

#### Funding

\$100,000 per year 3 years, 2016-2018

#### In kind resources

In March 2019, Imperial College London and the Elsevier Foundation started recruiting London based Elsevier colleagues to donate their time to coaching teenagers in the different program offerings.

#### Media coverage



## New York Academy of Sciences After-School STEM Mentoring Program

To thrive in our technology and information driven economy, our next generation of students need viable STEM skills. The New York Academy of Sciences (NYAS), one of the oldest and most distinguished US organizations of scientists and researchers, offers the After-School STEM Mentoring Program (ASMP) to New York's underserved children, ensuring that they are exposed to STEM. Over the past 3 years, the Elsevier Foundation partnership has supported the NYAS' engagement with funds, volunteers and additional support for the early career scientist mentors.

#### Goals

• The primary goal of the ASMP curriculum is to teach participants and site staff the basics of computer coding. By incorporating gardening with coding, the program aims to counter the preconception that coding is an activity that is sedentary and only to be done indoors.

• The goal of Familiy Science Nights is to offer focused, hands on activities led by a visiting scientist to engage students and their parents concurrently. At the end of each session, participants are given a tool kit of exercises to take home.

• The Scientist-in-Residence program builds the school's capacity to support long-term science investigations in the future, while also giving the scientist an opportunity to develop their pedagogical and leadership skills.

#### Milestones

The Elsevier Foundation's grant to NYAS has supported 3 major programs at the Academy that offer vital STEM programs to middle school students throughout New York City's 5 boroughs and beyond:

The Afterschool Science Mentoring Program trains young scientists and engineers in community-based afterschool programs to teach and mentor kids, giving them the unique opportunity to learn from a real science professional and to actively participate in scientific activities. In 2018, 100 mentors were engaged across underserved areas of NYC. The Academy also created a comprehensive computer science curriculum focusing on innovative computer coding for grades 4-6: the "Hack Your Garden" program ran in 50 sites for 20 weeks serving a total of 1250 students.
The Scientist-in-Residence Program pairs young scientists with classrooms to conduct authentic research and implement rigorous, inquiry-based science research programs. In 2018 35 scientists

worked in 20 schools working with teachers on a range of projects such as biodiversity and water filters.

• Family Science Nights offer an opportunity for students to get excited about science, technology, engineering and mathematics while spending quality time with their family, featuring various hands on experiments. In 2018, 5 Family Science Nights were held in one of each of 4 Boroughs of NYC and one in Newark, NJ. On average 100 people came to each of the 2-hour sessions.

"The beauty of this program is that not only do kids learn critical STEM skills, which are increasingly important for many types of jobs, but they also learn that STEM professionals can look just like them"

— **Meghan Groome,** Senior VP Education, New York Academy of Sciences





© The New York Academy of Sciences



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Above: scientist in Residence at Carroll Garden School for Innovation. Students working on designing a filtration system to filter combined sewer overflow from nearby Gowanus Canal into potable water.

Left: Students practicing their skills through hands-on activities alongside scientists from some of New York City's leading institutions. They tested the laws of physics as they tried to keep a styrofoam ball afloat using their breath.

#### Funding

\$100,000 per year 3 years, 2016-2018

#### In kind resources

The Elsevier Foundation funds cover the outreach programs for children, while the "Elsevier Professional Development Series" for NYAS' Science Alliance program has been developed as an additional in kind service providing educational panel discussions and webinars for NY's early career researchers twice a year.

#### Media coverage



## Organization for Women in Science in the Developing World The OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World

Women scientists in developing countries often experience isolation, lack of role models and visibility. For the past seven years, the Organization for Women in Science (OWSD) has collaborated with the Elsevier Foundation addressing these issues through a unique awards program for outstanding early career women scientists Africa; the Arab region; Asia and Pacific; Latin America and the Caribbean. The prizes rotate each year between three areas: Physical Sciences, Engineering Sciences and in 2019 Biological Sciences. In addition to the \$5,000 cash prize, travel and accommodation are provided to attend the American Association for the Advancement of Science (AAAS) annual conference, where the winners can take full advantage of the networking opportunities and benefit from a special awards ceremony in front of a distinguished audience of international scientists.

#### Goals

The Awards aim to increase the number and influence of women doing high-level science in the developing world. The premise is simple: the more diverse the pool of scientists, the more robust the science. Women scientists often make life-changing contributions on local, national and international levels, identifying problems and finding solutions that others have not considered. Awardees in turn become influential role models for other young women who struggle with a research environment that is often hostile to their needs and experiences.

#### Milestones

The Awards have provided value-added career development and visibility opportunities:

• Increased scientific excellence: invitations to present on international and regional panels, to collaborate on publications and visit laboratories.

• Additional funds: Since 2014, a supplementary cash award of \$2,500 per awardee has been made by private donors (past AAAS President, Dr. Gil Ommen).

• Improved networking: awardees often have individual meetings with influential players on the world stage, including national ambassadors, ministers, the AAAS CEO and president and US university department chairs and professors.

• Enhanced visibility: interviews with national and international newspapers, radio stations and television channels. The impact of the award in the awardees' home countries is notable: Narel Paniagua-Zambrana, 2019 winner from Nepal, was received by the President in Bolivia.

#### **Future plans**

Within 2019–2021 program cycle, OWSD and the Elsevier Foundation have augmented the existing grant with additional alumni mentorship, development and OWSD community building elements.

#### The 2019 winners

• Tabassum Mumtaz of the Bangladesh Atomic Energy Commission - environmental microbiology

• Uduak Okomo of the London School of Hygiene & Tropical Medicine in the Gambia paediatrics and epidemiology

• Narel Paniagua-Zambrana of the National Herbarium of Bolivia and Universidad Mayor de San Andres - ethnobotany

• Tista Prasai Joshi of the Nepal Academy of Science and Technology - environmental microbiology

• Amira Shaheen of An-Najah National University in Palestine - epidemiology

"These scientists are living proof that, if given the opportunities and support, women all over the world can become leaders in their field."

— Jennifer Thompson, President, Organization for Women in Science for the Developing World





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Dr. Narel Paniagua-Zambrana, Dr. Uduak Okomo, Dr. Tabassum Mumtaz, Dr. Amira Shaheen and Dr. Tista Prasai Jioshi during the 2019 Award Ceremony at the American Association for the Advancement of Science (AAAS) in Washington, DC.



During their week at AAAS, the Winners were hosted by the National Academies of Sciences. Here they are with Albert Einstein at the memorial outside the National Academies of Sciences, Engineering, and Medicine, with NAS colleagues Tom Rudin (Director of the Board on Higher Education and Workforce) and Maria Dahlberg (Program Officer of the Committee on Women in Science, Engineering, and Medicine).

#### Funding

\$60,000 per year 3 years, 2016-2018

#### In kind resources

• The award winners are provided with access to Elsevier products ScienceDirect and Scopus.

• Resources at Elsevier offices are made available wherever possible during the preparation of the winner's to publicly accept their awards; Elsevier colleagues also provide additional communications trainings.

• Elsevier's Global Communication team donates substantial time from their PR agencies dedicated to pitching the winner's and their accomplishments to major news outlets.

#### Media coverage



## Portia Ltd The Gender Summits

The Gender Summits (GS) are platforms for dialogue and action to improve the quality of research and the relevance of science to society. As a core focus, the GS examine how biological and sociocultural differences between females and males influence outcomes. The past year has opened up new opportunities for Portia Ltd., the architect of the Gender Summits, to engage with international organizations and multilateral fora to promote GS' mission. Portia has fully leveraged its knowledge, experience, and community to raise awareness of gender issues in science, technology and innovation to new audiences, especially those engaged in the implementation of the UN 2030 Sustainable Development Agenda and the vision of the Fourth Industrial Revolution (characterized by a fusion of technologies blurring the lines between the physical, digital and biological spheres). Both policy trends currently lack sufficient recognition of gender issues, which can jeopardise their aspiration to advance socio-economic advancement for all.

#### Goals

• Strengthen the perception of the GS as an action-oriented platform to communicate scientific knowledge on gender issues; mobilize scientists, policy makers and gender scholars to improve science knowledge making, and advance gender expertise.

Increase efforts to disseminate a new understanding of gender issues in STI through a variety of influential conferences, reports and journals.
Forge new collaborative relationships with organizations pursuing similar agendas as Portia.

#### Milestones

• Sustainable Mobility for All: contributed a chapter on gender for a major report from the SuM4All Consortium which aims to ensure that the development of global transportation is sustainable, inclusive, safe, efficient and green.

• UNESCO SAGA: contributed 2 sections to the final SAGA report UNESCO's STEM and Gender Advancement project to strengthen and focus their work in support of gender equality in STI.

• Gendered Innovations in Science and Technology Research: presented at the National Assembly in Seoul as part of the policy preparations to amend the legislation on women in STEM.

• International Development Research Canada: will jointly organise a training workshop for women scientists that IDRC funds in Asia, as part of the 16<sup>th</sup> GS in Singapore.

• UNESCO APCEIU: the article "Bringing Gender Equality to Science World" was published in Sang Saeng, Winter 2018

#### Dissemination

Special issues on gender for the Interdisciplinary Science Reviews (Apr 2019): 8 papers selected from research presented at GS
"Creating a Better Future: Four Scenarios for how Digital Technology could Change the World" published in The Journal of International Affairs, vol. 72

• Gender in a Changing Context of STI, Chapter 7 in the OECD STI Outlook 2018, Nov 2018

• "How to correct the gender bias in medical research", Financial Times, Aug 2018

• "Gender in HE: Improving equity, quality, and impact of science knowledge and practice", Keynote AdvanceHE Conference, Jan 2019

#### Future plans

3 GSs are being planned (GS 16 AP, Singapore, 28-29 Aug 2019; GS 17 EU, Amsterdam, 3-4 Oct 2019; GS Africa, Nairobi, 8-9 Mar 2020).
Additional GS-Europe in Munich to coincide with the German Presidency of the EU in 2020.
Scientific African journal to jointly produce a special issue on gender and climate change. This idea was inspired by the GS-Africa in Kigali, Rwanda, held under the theme Climate Change through the Gender Lens. A similar action is planned for the next GS-Africa in Nairobi.

"The Gender Summits help improve policy efforts around the world. We aim to tackle gender problems in society by advancing scientific understanding of gender issues and creating consensus on how women and men can best, and equally, benefit from research and innovation."





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Above: Elizabeth Pollitzer, architect of the Gender Summit, and former Elsevier's CEO Ron Mobed — who was invited as a speaker at the 2018 London Gender Summit.

Left: Elizabeth Pollitzer and Thierry Zomahoun, President and CEO of the African Institute for Mathematical Sciences. During the closing section at the 2018 Next Einstein Forum in Kigali, Rwanda,, he announced a new partnership between NEF and Gender Summit Africa.

### Funding

\$30,000 per year 3 years, 2016-2018

#### In kind resources

While the Elsevier Foundation grant focuses on the high level, future policy development of the Gender Summit, Elsevier has provided a substantial number of speakers (travel costs reimbursed) at all Summits since 2011 as well as sponsorships to help defray the Summits' operational costs averaging between \$10,000-\$15,000 per Summit.
Elsevier supported more than 10 Elsevier speakers and experts to contribute to the Summit discussions.

#### Media coverage



## DataKind DataDives in London and New York

Software, sensors and mobile phones produce a goldmine of data. Today companies are working with data scientists to get the most out of this data to serve their customers better. DataKind is a unique nonprofit that works to harness big data for good—literally to coach nonprofits in how to leverage this new resource in their efforts to move the needle on the SDG's. By working with teams of international scientists, DataKind is able to solve algorithmic puzzles for organizations dedicated to giving back.

A DataDive is a high energy, marathon style 48-hour event where nonprofits work with teams of 50-150 data scientists, developers and designers to use data to solve key problems in those communities. DataDives inspire community events and invite the brightest minds in data science, social change and technology to work in teams. They analyze, visualize and mashup fascinating data sets to give their partner organizations initial insights or prototypes to inform their work and create real world change. Participating in a DataDive serves as a unique opportunity for attendees to learn and test out new skill sets, build cross-industry connections, and utilize their talents to produce actionable, meaningful results for missiondriven organizations.

#### Goals

• Expand the global community of capable data science professionals.

• Build and refine DataKind solutions to create efficiencies in solving substantial, compelling issues, and produce actionable, meaningful results for mission-driven organizations.

• Provide opportunities for Elsevier employees to contribute their unique skills to support humanitarian causes and learn new techniques from across industries to aid in their ongoing work while underscoring support of UN Sustainable Development Goals.

#### Milestones

In 2018 the Elsevier Foundation supported a DataDive in NYC in July hosted at Google headquarters, and one in London in November, hosted at the TeraData office.

• In total, 10 Elsevier volunteers have contributed their time and expertise to the 2 DataDives.

• Over 130 participants attended the UK DataDive, making it the largest one to date.

• During the London DataDive opening, Domiziana Francescon was invited to present around the Elsevier Foundation efforts in the area

of technology for social good.

Key moments from the London event were broadcast on Facebook Live, gaining a total of about 9000 views – doubling the 2017 stats.
During the Hack Day organized by the Elsevier office in London on March 19th 2019, DataKind staff was invited to present to ca 60 Elsevier colleagues to raise awareness about volunteering opportunities.

#### **Future Plans**

DataKind and the Elsevier Foundation are exploring opportunities to continue supporting DataKind with DataDives in the UK – potentially hosted at the Elsevier office to provide both in kind and financial support.

"Having a company like Elsevier involved helps because it's been through that journey to become much more data driven. There are challenges that Elsevier has overcome, and it's a similar conversation to the one we have with the

#### non-profits."

**— Emma Prest**, Former Executive Director, DataKind UK





© BERT Alison./Elsevi

Participants work in front of a screen that displays the New York DataDive sponsor: on the left is Dr. William Gunn, Director of Scholarly Communication at Elsevier. Data scientists, developers and enthusiasts working alongside nonprofits to strategize, visualize and crunch data critical for moving the needle on issues as diverse as helping communities hold corporations and institutions accountable for harmful effects of international development projects, ensure international development considers the human rights and environmental impact on communities and advancing development principles and projects that prioritize human and environmental rights.

#### Funding

\$75,000 per year 1 year, 2018

#### In kind resources

in 2018, 10 Elsevier volunteers have offered their time and skills to participate in the DataDive. DataKind and the Elsevier Foundation will start recruiting for the new cycle of DataDives in 2019.

#### Media coverage

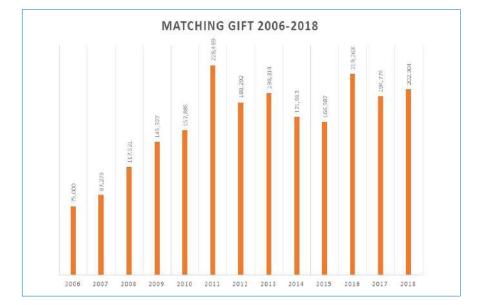


## The Elsevier Foundation Matching Gift Program

To encourage generosity and community involvement, the Elsevier Foundation provides matching funds to charitable organizations that Elsevier employees personally support. Each year, the Elsevier Foundation Matching Gift Program earmarks \$200,000 to match employee's individual and group donations to eligible non-profit organizations around the world. The Fund is also used to support global disaster relief efforts championed by Elsevier colleagues. In 2016, over 200 charities were supported by employees across 10 countries. By matching employee gifts, both employee and Foundation resources are leveraged for maximum community benefit, ensuring that colleagues feel connected to the Elsevier Foundation.

In 2017, the Matching Gift Fund began working CyberGrants, a new vendor, to create a more streamlined user experience within the Matching portal. The new platform will greatly speed up both the US and international matching process, enabling a monthly pay out, rather than a quarterly one. In the fourth quarter of 2017, the Matching Gift program was also able to offer US payroll giving matches. In 2019, the Foundation team will investigate the feasibility of payroll donations in other locations and direct credit card giving which will offer instantaneous match options.

"Often new colleagues aren't aware of it until a disaster hits: floods in Chennai, Latin America and New Orleans, the recent earthquake in Italy... We see the Matching Gift as a vital service and employee benefit, making it possible for colleagues to play a positive role in their local and global communities," said Ylann Schemm, Director of the Elsevier Foundation. "Whether colleagues are cycling from London to Amsterdam or holding book sales, bake sales, fashion days, pub quizzes or simply giving quietly, under-the-radar, Elsevier employees' generosity is overwhelming and their fundraising zeal impressive."



## Overview of Matching Gift expenditures over the past decade.

The spike in 2011 reflects a large scale response to the earthquake and Fukushima disaster relief efforts in Japan; while the spike in 2016 was due to an additional \$20,000 in disaster relief to the Red Cross for the Louisiana flooding. In 2018, Office Match amounted to 22% of the expenditures, while the Individual Match at 78%. The US matches also continue to comprise about 90% of all matches.



© Gina Walker

Longtime Elsevier employee, Gina Walker crosses the finish line after a 60km walk for breast cancer charity, "A Sister's Hope". Over the past 6 years, Gina has been a staunch advocate tapping the Matching Gift Fund to help her raise over \$18,000 for the charity in vital funding for research in the Netherlands and the US.



Elsevier volunteer and Amsterdam RE Cares Champion, Joanne Thomson traveled to Battambang, Cambodia in January 2018 with a team of volunteers from Habitat for Humanity. She and 17 other volunteers worked to build three houses for families in the local community. Joanne was able to tap the Matching Gift Fund to help her raise over €2,600 through a bake sale for Habitat - a global, nonprofit housing organization empowering people in the world's poorest communities to overcome the chronic lack of decent, affordable housing.

© Joanne Thomson



©Girls Inc.

EF

## **New Partnerships**

2019 AND BEYOND

## New Partnerships in 2019

Since our 2017 meeting, we have taken steps to integrate the Board's guidance into our Foundation programs. Below are a number of new partnerships for our 2019 to 2021 program cycle.



#### Girls Inc. of New York

The Pre–G3: The Elsevier Foundation Data Analytics Preparatory Program is a partnership run by with Girls' Inc of New York. The program aims to offer girls tangible skills at a lower developmental level to prepare them for the concepts they will encounter in the high school programs.



#### The ITEM

The ITEM (The Inclusive Technology + Entrepreneurship Movement) offer flexible, low cost training and resources to new techies, career professionals and entrepreneurs, providing them with highly marketable and practical technology skills. Its central mission is to ensure everyone can participate in the emerging tech sector.



#### COACh

In sub-Saharan Africa, women bear 71% of the water collection burden, produce 90% of all food, and comprise 70% of the agricultural workforce – but few are in key leadership positions in the water resources area. The proposal seeks to increase the ability of African women working in water research and policy to be more effective in tackling water challenges in their home countries.



#### The Food & Agriculture Organization of the UN (FAO)

The program will expamd Research4Life support for research capacity building from in person trainings to include an online distance learning course for developing country researchers.

## Girls Inc. The Elsevier Foundation Data Analytics Preparation Program

Women hold just 26% of data science-related jobs and minority women have an even less advantageous employment outlook, according to a 2017 report by the American Association of University Women. In 2017, less than one in 10 women in the data workforce were minorities: Asian (5%), African American (3%) and Hispanic (1%).

Through its programming, Girls Inc, a non-profit serving girls ages 6 to 18 at more than 1,400 sites in 400 cities across the US and Canada, has prepared girls to study in STEM fields and attain college and postgraduate degrees. Over the past 4 years, Girls Inc of New York City has introduced hundreds of high school girls to the field of data analytics through Generation Giga Girls (G3): The Moody's Data Analytics Program. However, the demand for more programming, serving more girls at an even earlier age, has become a critical priority.

To achieve this, Girls Inc of New York City is partnering with the Elsevier Foundation to launch Pre-G3: The Elsevier Foundation Data Analytics Preparatory Program, a first-of-its-kind introduction to data analytics for girls as young as 8th grade using a social justice lens. Underserved girls often lack the basic skills required to thrive in intensive programs like G3. The 8th grade is also a crucial year as students begin to get harder academic coursework, develop time management and organizational skills while being exposed to competing priorities with increasing responsibility at home and social pressure among peer groups. Programs like these are vital in navigating this challenging time.

#### Goals

The mission of Girls Inc of New York City is to inspire girls to be strong, smart and bold. In a G<sub>3</sub> classroom, students are engaged and excited. They use the vocabulary, ask thoughtful and enthusiastic questions, challenge their peers and show a love for learning. Pre 3-G Goals include:

• To increase the number of low income and underserved girls enrolling in data analytics by improving their core skills and confidence in their ability to succeed

• Offer girls tangible skills at a lower developmental level to prepare them for the concepts they will encounter in the high school program.

#### The curriculum

• Culturally responsive teaching and a focus on mentoring: many youths in marginalized communities are used to teachers not believing in their capability, but when high achievement is expected, students perform.

• Anchoring the curriculum in the everyday lives of students, teaching data science through the lens of social justice issues, contemporary culture and developmentally appropriate topics: students learn to assess whether GPA is fair, for instance, or if black and Latino students have higher suspension rates than their white counterparts, and they study trends in social media use among teens.

"It wasn't until I spoke to my Girls Inc facilitator about my frustration with math that I realized I was better at it than I thought I was. In fact, me having to break down each and every problem piece by piece was what made me unique. We've only just started the G3 Data Analytics program, but I can already tell that this is the space for me."

Ester, 10th grade student enrolled in Girls Inc.
 G3 program.





© Girls Inc.

High school students Maryrose and Ester analyze data after compiling it from a database on out-of-school suspension rates in America. Ester Ester is enrolled in the Girls Inc G<sub>3</sub> program and she's immersing herself in data analytics projects with a social justice focus, such as the wage gap in the United States, gentrification of Central Harlem, school suspension rates based on gender and ethnicity, and the lack of women of color in the tech pipeline.

#### Funding

\$100,000 per year 3 years, 2019-2021

#### In kind resources

The Elsevier Foundation and Girls Inc will explore volunteering opportunities for NYC-based colleagues. An office-wide RE Cares event is planned for April 9, 2019.

#### Media coverage



## The Inclusive Technology + Entrepreneurship Movement (ITEM)

The Inclusive Technology + Entrepreneurship Movement (ITEM) provides career pathways into the technology sector for minority adults in the Greater Philadelphia Area. It focuses on creating upwardly mobile careers while alleviating two pervasive problems, which disproportionately affect Philadelphia's minority population: poverty and un(der)employment. At the same time, the ITEM's activities aim to help diversify the technology sector.

The ITEM is currently the only organization in the Greater Philadelphia area that provides young minority adults with career pathways into technology at entry level positions starting at \$60,000. The ITEM's central mission is to ensure that everyone can participate in the emerging tech sector, with particular focus on cloud computing, software development and operations careers.

#### The programs

The ITEM runs 3 programs:

• The ITEM Academy is designed to help new entrants enter the tech sector or facilitate mid-career individuals to improve their tech skills. The curriculum is designed with the goal of training diverse talent with highly marketable certifications and practical skills in as little as 180 days.

The ITEM Resources program builds on the Academy, aiming to provide Academy's participants access to employment.
The ITEM Entrepreneurship offers the ITEM community members access to capital and entrepreneurial educational resources (mentors, trainings).

The ITEM already trained 70+ adults providing 5,000 hours of cloud computing and DevOps education. For the next two years, their courses will be carried by the Community College of Philadelphia, significantly expanding The ITEM's reach to its target audience.

In addition to these programs, the ITEM also runs a series of monthly meetings aimed at enhancing attendees' skills. The subject of the meetings varies from project management to networking and career planning, with the aim of helping community members to enhancing their professional networking skills and career pathways. Over the past year, Philadelphia based Elsevier colleagues have frequently hosted The ITEM monthly meetings and participated as speakers.

#### Goals

Monthly Engagement with The ITEM community; educational programming providing training in Cloud Computing and DevOps; and facilitating employment opportunities for successful students.
During 2019, the ITEM will design a program for involving Elsevier employees with assisting

ITEM community members in gaining practical exposure to cloud and DevOps technologies through pair-programming sessions.





#### © The ITEM

Above: Panel from the ITEM first ever Meetup in 2015, featuring Sylvester Mobley Maghrum, CEO of Coded by Kids. The ITEM Meetups welcomes all aspiring, novice, and diverse techies, techpreneurs, entrepreneurs and financiers to meet regularly and discuss their projects, companies, learn from one another, and share the latest news in the tech sector.

#### Funding

\$15,000 per year 3 year,s 2019-2021

#### In kind resources

The Elsevier Foundation and The ITEM will explore volunteering opportunities for Philadelphia-based colleagues.

#### Media coverage



## COACh-Elsevier Foundation Water First! Workshops

Water security remains one of the greatest challenges of the 21st century. In sub-Saharan Africa, women bear 71% of the water collection burden, produce 90% of all food and comprise 70% of the agricultural workforce. Women are involved in water-related activities such as water conservation, water storage, domestic cleaning, crop production and preparation of food. Despite this, women have restricted access to the resources needed to secure and manage scarce water such as land, agricultural inputs, finance and credit. African women are at the forefront of the daily struggle for water security, but few are in key leadership positions in the water resources area. This lack of representation in decisionmaking roles removes women's vital contribution to water resource policy-making and management, and further exacerbates the existing disconnection between policy and implementation.

The COACh Elsevier Foundation Water First! Workshop series, led by COACh, will offer African women scientists a unique opportunity to expand their professional networks, discuss their professional interests in these critically important topics, develop career and life enhancing collaborations, share career experiences and gain leadership training.

COACh is a grass-roots organization of scientists and engineers hosted by the University of Oregon and led by Dr. Geri Richmond that has been working since 1997 to assist in the career advancement and success of women scientists through innovative career building workshops and programs. Over 20,000 women scientists have participated in COACh programs conducted both in the U.S. and in developing countries in Latin American, Asia, the Middle East and Africa.

#### Goals

The workshops seek to establish a network of African women practitioners whose expertise and experience can be tapped at multiple levels to address water security challenges facing the continent. The goals of this 2019 – 2021 workshop series include: discussing critical water resource science and engineering issues in various regions of Africa, networking for possible future collaborations and providing an opportunity to address issues that are slowing the career progress of women scientists and engineers working in this topical area. The workshops will be held successively in Ghana, Ethiopia and South Africa.

#### **Future plans**

The first workshop will be held in Accra, Ghana, September 8-10, 2019and organized in partnership with the Organization for Women in Science for the Developing World (OWSD). The outputs will include: • Develop a series of action plans for collaborations formed.

• Collect and assemble short essays and case studies from participants on their perspective of the contributions and challenges of women working on water issues in their respective countries for eventual book publication.

• Disseminate video and radio information for creating public awareness on the water issues addressed during workshops.





© COACh



COACh.

Above: participants at the Women in Water workshop in Rwanda in June 2016. Attendeed came from 11 different African countries and together with instriuctor Dr. Geri Richmond they developed a series of action plans to both build their network while also work to make access to clean water a priority in their countries.

Left: participants at the Building Leadership Capacity in Science, Water and Health workshop in July 2014, Cameroon.

#### Funding

\$70,000 per year 3 years, 2019-2021

#### In kind resources

The Elsevier Foundation and COACh will be exploring volunteering opportunities for Elsevier colleagues.

#### Media coverage





## The Food & Agriculture Organization of the UN (FAO) Research4Life eLearning Program

Until the advent of the internet, researchers, physicians, students and policymakers in developing countries suffered from a lack of up-to-date, peer reviewed scientific literature, essential for research, dissemination, teaching, practice and policymaking. To bridge the digital divide, the Research4Life (R4L) partnership has provided free or low-cost access to research for the past 15 years to publicly-funded institutions in the world's least resourced countries. Through its 5 programs HINARI, AGORA, OARE, ARDI and GOALI, over 8,900 institutions are registered for R4L in more than 120 countries and territories. Together with open access, R4L, with 85,000 peer reviewed resources, has become the primary means of access to research for a majority of users in developing countries. Elsevier is one of the 6 original founding partners and provides a quarter of that research with 3,200 journals and 21,700 eBooks as part of its corporate responsibility program.

To ensure that Research4Life's community of users are fully equipped with the knowledge and skills needed to access and effectively use the information, training activities remain critical. Traditionally, much of R4L information literacy training - and the Elsevier Foundation's support of it - has happened in a face to face, train the trainer capacity through the MLA's Librarians without Borders program. The Food and Agricultural Organization's program, AGORA, developed a robust e-learning course to scale up training efforts in 2017. Based on these successful e-learning modules, the R4L Capacity Development Team has proposed to scale up its program to reach across the entire Research4Life portfolio to complement in person training.

#### Goals

FAO aims to create a unique e-learning MOOC course entitled: "Research4Life Online Training Tools to develop capacities in information use, scholarly communication and information management in least developing countries", combining Research4Life efforts and resources in a coherent, collaborative way to create a joint modular e-learning course. The project will help researchers in educational, research, and policy institutions in more than 100 lower income countries participate fully in the global scientific community. The e-learning course will be focused in "learning paths" to facilitate the selection of Units/Lessons according to the learner's information needs. Its modular structure will enable the inclusion of the subject specific content from each program in a coherent way. R4L merged workflow and common coverage will be the base for the course outline.

#### Deliverables

The freely available online course will be composed of 4 modules and 24 lessons with a capacity for 1000-1500 participants. The FAO team anticipates that the eLearning program development trajectory will be approximately 10 months starting 15 April 2019 to 15 February 2020. Once delivered, a downloadable version of the course will be available.

"The course reinforced what I knew and what I may have looked down upon. It gave fresh impetus to engage researchers in Agriculture faculty and assist them with access to relevant information, and contribute to the universal body of knowledge."

— ASIRA (Access to Scientific Information Resources in Agriculture) online course user



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ASIRA (Access to Scientific Information Resources in Agriculture) online course: the goal is to provide a channel to enhance the visibility, accessibility and usability of agricultural data and science particularly in low-income countries. Users are offered a combination of lessons, webinars, assignments and online tutorials. The course consists of 8 compulsory lessons of 40 to 90 minutes, moderated by two facilitators. By summer 2017, 543 librarians, researchers and students from 41 countries were reached.

# 10 aren."

#### Funding

\$45,000 per year 1 year, 2019

#### In kind resources

Ylann Schemm has chaired the Research<sub>4</sub>Life Communications team until December 2018. Domiziana Francescon has assumed this co-chair role along with an FAO representative - while Ylann is now the publisher representative on Research<sub>4</sub>Life's executive council.

#### Media coverage



## **Mission Measurement**

#### THE IMPACT GENOME PROJECT

#### **Evaluation Pilot: From Outputs to Outcomes**

At the close of 2018, we established an evaluation pilot with Mission Measurement's Impact Genome Project® (IGP). The IGP has developed an impact data standard enabling funders and policymakers to quantify, benchmark, and improve ROI on social impact investments. The Impact Data Standard has been curated with input from 100's of practitioners, funders, academics, and thought leaders and defines 192 social outcomes across 47 areas of social policy from more than 10,000+ research studies and 80,000 outcome data points from nonprofits. The IGP uses rigorous, evidence-based, standardized social outcomes to enable partners to easily report the impact of their program across multiple funders through a evolving survey. The following partnership scorecards make it feasible to go beyond outputs to focus on impact across multiple partnerships.

## Potential benefits of applying the IGP to the Elsevier Foundation portfolio:

- Confirm the outcomes we want to fund
- Assess current/future partners' capacity to achieve these outcomes
- Track performance over time and benchmark our results
- Improve our partners' capacity to produce and measure impact
- Systematically improve our ROI

	Through or	ur Investment:	:
	3	325	
Organizations increased organizational effectiveness to achieve target goals			
14	4,109	86%	79%

#### **Key Takeaways**

• The Elsevier Foundation gave to 13 organizations with 14 programs covering 10 distinct outcomes. Through their investment, The Elsevier Foundation successfully supported 3,325 beneficiaries.

• Influential Research is the most common primary outcome selected by programs, with 4 programs reporting on Innovation > Influential Research (for individuals) and 1 reporting on Capacity Building > Influential Research (for whole organizations). Programs working towards this outcome demonstrate a lower average efficacy rate than benchmarks, but also a lower average cost-per-outcome.

• Many of the partners are focused on their program outputs, both in how they report impact and in how they describe their program goals. Support should be given to help partners consider their theory of change—that is, how these outputs and the activities of the programs are intended to produce outcomes.

# Cost Per Outcome (CPO) in USD:\$30\$8,251\$42,500\$14,600Minimum<br/>Portfolio CPOAverage<br/>Portfolio CPOMaximum<br/>Portfolio CPOBenchmark CPO

OUTCOME	FUNDED	IMPACT
Organizational Effectiveness	1,507	Organizations increased organizational effectiveness to achieve target
Career Advancement	1,084	Individuals gained skills neccesary to advance their career
Form Coalitions	500	Institutions formed coalitions to accomplish advocacy goals
STEM Interest	139	Individuals attained access to and awareness of STEM subjects and
Influential Research	34	Individuals attained capital and knowledge to develop and publish
Strengthen Innovation Skills	21	Individuals developed innovative skills
Social and Emotional Skills	16	Youth increased confidence in self-image, positive behaviors, and
High Quality Leadership	11	Leaders demonstrated high quality organizational leadership
Influential Research	10	Organizations developed/published new scientific insights.
Stimulate Entrepreneurship	4.	Individuals develop an advanced knowledge of entrepreneurship



#### Takeaways: Impact and Evidence Overview

• The highest number of outcomes were produced for Capacity Building: Organizational Effectiveness. Much of this comes from the MLA Librarians without Borders project, which currently measures individuals and not organizations.

• 4 of 14 programs (28%) report on impact using levels 1, 2, or 3 evidence (medium or high quality). This is in line with 24% of programs reporting with levels 1, 2, or 3 across the IGRP.

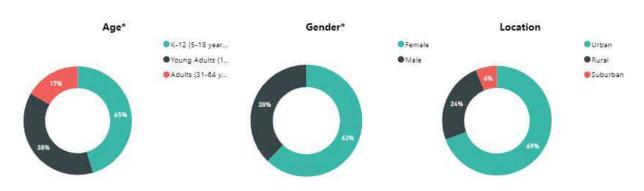
• 3 of 4 programs reporting using medium quality evidence come from the Diversity in STM portfolio. In general, education programs implement higher quality evidence.

#### **Takeaways: Beneficiaries and Geographic Information**

• Individual beneficiaries of these programs are nearly all (over 80%) children (ages 5-18) or young adults (ages 19-30).

• Over 60% of beneficiaries supported by partners are female.

• Programs are working in countries across the world, with the highest concentration of work being conducted in sub-saharan Africa.



"Beneficiary-level data was only collected for programs serving individuals, the number of beneficiaries is calculated using the direct reach of the programs and the percentages of their beneficiary demographics

Epicentre Niger: Niger Research Center Training

#### Organization Overview

Name	Epicentre Niger
Genome	Innovation

#### Program Overview

Program Name	Niger Research Center Training
Program Type	Direct Service
Beneficiary Type	Individuals
Budget	\$113,490

#### Description

Epicentre is a non-profit organization created in 1986 by Médecins Sans Frontières (MSF). The Niger Research Center, founded in 2009, is an African led research center producing high-impact studies aimed at transforming medical practice. The staff in Niger, as one of the poorest countries in the world, has limited access to training and mentoring activities outside of the country and region. This project focuses on capacity building of medical and scientific staff and improving health outcomes in Niger.

#### **Program Logistics**

Location: France, Niger

#### **Key Demographics**

	The program primarily serve	es medical
Core Beneficiary	and scientific staff working a	at Epicentre's
Group:	Niger Research Center. Staff	are Niger
	nationals or from surroundi	ng countries.
Age		
Adults (31-64 years of	old)	100%
Sex		
Male		80%
Female		20%
Additional Characterist	ics	
Low-Income or Ecc	nomically Disadvantaged	100%

#### Mission Measurement Insight

The program works to provide training and mentoring to staff at Epicentre Niger's research center from program staff in Niger and Europe. The amount of mentoring is extensive (estimated 800 hours per year), and the program features a very low costper-outcome compared to benchmark. Current evidence is based on whether participants contributed to publications produced by the Center. This could be bolstered by pre/post surveys that measure improvement in staff ability to contribute to production of scientific knowledge before and after the intervention.

#### Outcomes

#### Primary Outcome: Influential Research

This outcome is satisfied if an individual has achieved all of the following within the past year: - Attained access to capital for R&D

- Developed knowledge management systems including systems for creating, retaining and

transferring knowledge to enable innovation

- Developed new insights through scientific or empirical research to enable innovation

Secondary Outcome(s): National Public Health Capacity, Organizational Reach

#### Self-Reported Data

100%	20	20	\$5,675
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a	# of beneficiaries served	Total # of beneficiaries	Budget / Actual Outcomes
positive outcome		achieving a positive	
		outcome	

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

The above figure was based upon named contribution to high-impact scientific publications stemming from studies conducted in Niger. Not all participants are eligible for authorship, but all contributed to publications produced. This is an easily traceable metric which provides evidence of scientific contribution to research following international guidance for authorship.

#### **Genomic Analysis**

#### Most Emphasized Activities ("Genes") in this Program

1. Provide opportunities outside of Niger for medical and scientific staff to receive additional training to further their careers

2. Encourage medical and scientific staff from Niger and surrounding countries to be mentored and mentor others to sustain a vibrant research culture

3. Provide opportunities for staff to promote visibility and encourage discussion on the issues most pressing to them in terms of medical research

4. Provides internet access

5. Provides access to Elsevier databases

#### **Program Intensity**

Dosage	Frequency	Duration
Not provided	Not provided	Not provided

Beneficiaries are full-time staff members so their participation is constant. This means that they are interacting with senior staff in Europe, and senior staff in Niger on a daily basis. This is less frequent when they are participating in a professional development class or on vacation.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Niger Research Center Training	100%	\$5,675
Impact Genome Benchmark <sup>*</sup> for this	020/	¢20,700
Outcome	82%	\$36,768

The data above was reported by Epicentre Niger in March 2019





#### Amref Flying Doctors: The Innovate for Life Fund (I4LF)

#### Organization Overview

Name	Amref Flying Doctors
Genome	Innovation

#### **Program Overview**

Program Name	The Innovate for Life Fund (I4LF)
Program Type	Direct Service
Beneficiary Type	Organizations
Budget	\$170,235

#### Description

The Innovate for Life Fund supports African entrepreneurs in the development of innovative, sustainable and scalable solutions for a healthy Africa. The program focuses on the 'missing middle' – a growing community of entrepreneurs whose enterprises are too large for microcredit, but too small for traditional commercial investors. Through the program, we provide the entrepreneurs with health sector-specific support knowledge, network, and access to funding. This is combined with business coaching by an experienced fund management organization.

#### Program Logistics

Location: Africa: 38 countries

#### Key Demographics

	The program primarily serves African
	entrepreneurs with an innovative
Core Beneficiary	product or service that is already in the
Group:	market and aims to improve primary
	health care in Africa.

#### Mission Measurement Insight

The program's high cost-per-outcome compared to benchmark may be due to working with organizations, as well as the extensive mentorship components the program implements. Current evidence is anecdotal based on organizations/entrepreneurs having participated in the program. Higher-quality evidence for impact could either provide more detailed measurement of growth on outcome criteria or examine collective impact on outcomes around the program goals for improving African health care.

#### Outcomes

#### Primary Outcome: Stimulate Entrepreneurship

This outcome is satisfied if an individual has achieved at least one of the following within the past year:

- Attained access to capital, markets, and business information for small enterprises
- Achieved job growth and expansion in small enterprises
- Developed business knowledge and best practices among entrepreneurs

**Secondary Outcome(s):** Affordable, Quality Healthcare, Commercialize Innovations, Strengthen Innovation Skills, Design New or Improved Products and Services, Scale Effective Strategies

#### Self-Reported Data

100%	12	12	\$14,186
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a	# of beneficiaries served	Total # of beneficiaries	Budget / Actual Outcomes
positive outcome		achieving a positive	
		outcome	

#### Level of Data Reported

Level 5	Anecdotal evidence	training and discussions on best practices.
Level 4	Performance metrics /stats	<ul> <li>coached by a business mentor and introduced to im investors. They also developed business knowledge an knowledge on best practices by participating in busin</li> </ul>
Level 3	Point-in-time study	
Level 2	Pre-post or cross-sectional	attained access to business information because they were
Level 1	RCT or quasi-experimental	All of the entrepreneurs who participated in the program

#### **Genomic Analysis**

#### Most Emphasized Activities ("Genes") in this Program

1. Links entrepreneurs to 'health mentors' who provide them with healthcare expertise.

2. Links entrepreneurs with 'business mentors' who provide them with advice on their business model and strategic plan.

3. Conducts various trainings in business skills for the entrepreneurs.

4. Connects entrepreneurs with a strong network of relevant stakeholders in the field of healthcare and impact investments.

5. Forms strategic partnerships between the entrepreneurs and Amref.

#### **Program Intensity**

12 to >24 hours Not provided	6 months to <1 year

\_\_\_\_\_

The program selects six entrepreneurs who each participate in at least two intensive weeks (80 hours in total). Three of the entrepreneurs are invited for a third intensive week (40 hours). Throughout the program, the entrepreneurs engage with their two mentors (each) and other key stakeholders.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
The Innovate for Life Fund (I4LF)	100%	\$14,186
Impact Genome Benchmark <sup>*</sup> for this	78%	¢2.004
Outcome	78%	\$3,894

The data above was reported by Amref Flying Doctors in March 2019





#### Amref Flying Doctors: Jibu

#### Organization Overview

Name	Amref Flying Doctors
Genome	Workforce Development

#### **Program Overview**

Program Name	Jibu
Program Type	Direct Service
Beneficiary Type	Individuals
Budget	\$88,522

#### Description

Amref Health Africa in partnership with the Ministry of Health, the Nursing Council of Kenya (NCK), Rutgers, and nurse training institutions developed a mobile learning platform to support the professional development of nurses and midwives. After the first pilot phase, the current project is aimed at finetuning the app in line with technological developments, developing more pedagogically sound content, aligning with the formal training framework and gathering evidence on m-learning.

#### **Program Logistics**

<u> </u>				
Location:	Kenya, Senegal, Uganda, United			
	Republic of Tanzania, Zambia	3		
Key Demographics				
	The program directly serves in	1-service		
Core Beneficiary	midwives and nurses, especia	Ily those		
Group: with limited access to learning materia		y materials		
	information.			
Age				
Young Adults (19-30 years old) 70%				
Adults (31-64 years old) 309		30%		
Sex				
Male		25%		
Female		75%		
Additional Characteristics				

#### Mission Measurement Insight

The program's app is currently in development and will be conducting pilot testing through 2019. Low cost-per-outcome compared to benchmark is likely due to online nature of the program, and may change as the program rolls out with beneficiaries. Current efficacy rate represents a projection of beneficiaries completing program components and obtaining certification. Higher-quality evidence should be available as beneficiaries start to use the app, and the program should consider opportunities for pre/post assessment and comparison study of users and non-users against the outcome.

#### Outcomes

#### Primary Outcome: Career Advancement

This outcome is satisfied if an individual has achieved at least one of the following within the past year:

- Demonstrated professional capabilities (e.g., soft skills, leadership skills, technical skills, productivity, etc.) to advance career

- Attained a better job or position as a result of increased skills

#### Secondary Outcome(s): Infant Health, Maternal Health

#### Self-Reported Data

80%	1500	1200	\$74
Efficacy Rate % beneficiaries achieving a positive outcome	<b>Program Reach</b> # of beneficiaries served	Actual Outcomes Total # of beneficiaries achieving a positive outcome	Cost per Outcome Budget / Actual Outcomes

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

Based on an estimated 1,200 health workers being able to complete their certificate level training. The rest along with others enrolled in upcoming years will take a total of 3 years each to complete the diploma level health training in health training institutions. Amref's eCampus and Jibu by extension have a robust tracking system which is able to provide detailed reports on the progress and quality of the training and the achievements of students. The app was under development last year, so it had no users yet. It will be tested with control panels in 2019.

#### **Genomic Analysis**

Most Emphasized Activities ("Genes") in this Program	
1. Evaluates and monitors success of own programs	
2. Links clients to environmental health services and auxiliary services	
3. Links clients to low-cost healthcare options	
4. Provides medium- to long-term healthcare coordination	
5. Provides short-term healthcare coordination	
Program Intensity	

#### Program Intensity

Dosage	Frequency	Duration
12 to >24 hours	2-6 times every week	1 year or more

The project currently covers the development and testing of the app. The above figures are estimates for use of the the app once it is operational. The app is for continuous professional development, so it is depends on participants how frequent and long they use it.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome		
Jibu 80% \$74				
Impact Genome Benchmark <sup>*</sup> for this Outcome 80% \$3,457				
The average Efficacy Rate and Cost Re Outcome of all programs in the Impact Genome database that target this same outcome.				

The data above was reported by Amref Flying Doctors in February 2019





#### Sigma Theta Tau International Honor Society of Nursing (Sigma): Nurse Faculty Leadership Academy



#### Organization Overview

	Name	Sigma Theta Tau International Honor Society of Nursing (Sigma)
Genome Organizational Leadership	Genome	Organizational Leadership

#### **Program Overview**

Program Name	Nurse Faculty Leadership Academy
Program Type	Direct Service
Beneficiary Type	Individuals
Budget	\$128,000

#### Description

The Nurse Faculty Leadership Academy (NLFA) was an international leadership development experience designed to facilitate personal leadership development; foster academic career success; promote nurse faculty retention and satisfaction; and cultivate high performing, supportive work environments in academe. The NFLA provided an intense, 20-month leadership development curriculum constructed on intellectual and experiential learning opportunities facilitated by expert faculty.

#### **Program Logistics**

Location:



United States: AL, GA, IN, KS, KY, MD, NC, OH, PA, TX, VA

#### **Key Demographics**

	The program primarily serves er	merging	
Core Beneficiary	Core Beneficiary leaders at schools of nursing who have		
Group:	served between two to seven y	ears as	
	full-time faculty.		
Age			
Adults (31-64 years o	old)	100%	
Sex			
Female		100%	
Race			
White or Caucasian		86%	
Other		7%	
Additional Characteristi	cs		

#### Mission Measurement Insight

The program produces leadership outcomes specifically for nursing faculty. High cost-per-outcome compared to sector benchmark may be due to how extensively they work with beneficiaries over the 20 month intervention. Evidence for impact is strong and uses an externally created and validated instrument. This could be bolstered both by comparison study of participants to non-participants and considering specific targets for growth on the LPI pre/post tool.

#### Outcomes

#### Primary Outcome: High Quality Leadership

This outcome is satisfied if a leader in an organization has achieved all of the following within the past year:

- Demonstrated transformational leadership practices including providing individualized direction and support, intellectual stimulation, reinforcement, visionary leadership, etc.

- Achieved high ratings of leadership effectiveness from staff, volunteers and stakeholders

- Created a culture of shared leadership by transferring transformational leadership practices to others, empowering leadership among subordinates, etc.

#### Secondary Outcome(s): Career Advancement, Organizational Effectiveness

#### Self-Reported Data

100%	14	14	\$9,143
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a positive outcome	# of beneficiaries served	Total # of beneficiaries achieving a positive	Budget / Actual Outcomes
positive outcome		outcome	

#### Level of Data Reported

RCT or quasi-experimental	
Pre-post or cross-sectional	
Point-in-time study	
Performance metrics /stats	
Anecdotal evidence	

The Leadership Practices Inventory (LPI) self-assessment was administered at baseline, midway through the academy, and program end. Scholars' mean LPI scores increased 21% from baseline to the program end, and all 14 participants demonstrated growth.

#### **Genomic Analysis**

Most Emphasized Activities ("Genes") in this Program
1. Develops leadership values / attitudes
2. Promotes heightened leadership style- / self-awareness
3. Utilizes experienced / trained leadership education program facilitators
4. Promotes individual action plans / goal-setting
5. Provides role-play / modeling of behaviours

#### **Program Intensity**

Dosage	Frequency	Duration
1 to <3 hours	2-6 times every week	1 year or more
Duration is 20 months		

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Nurse Faculty Leadership Academy	100%	\$9,143
Impact Genome Benchmark <sup>*</sup> for this Outcome	94%	\$6,763

\* The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome database that target this same outcome.

The data above was reported by Sigma Theta Tau International Honor Society of Nursing (Sigma) in March 2019



#### Impact Genome Scorecard® The Elsevier Foundation:

#### The Elsevier Foundation Green and Sustainable Chemistry Challenge



#### Organization Overview

Name	The Elsevier Foundation
Genome	 Innovation
_	

#### Program Overview The Elsevier Foundation Green and Program Name Sustainable Chemistry Challenge Program Type Awards, Prizes & Competitions Beneficiary Type Individuals \$85,000 Budget

#### Description

The Elsevier Foundation Green and Sustainable Chemistry Challenge awards projects that use green and sustainable chemistry solutions to tackle some of the developing world's greatest challenges whether in water, sanitation or energy. The top five candidates will be invited to present their proposals at the annual Elsevier Green & Sustainable Chemistry Conference. The first prize challenge winner receives a €50,000 award, and the second prize winner receives a €25,000 award.

#### **Program Logistics**

Location: Germany, Nepal, Netherlands, Senegal

#### **Key Demographics**

1 3 1 9		
chemistry researchers working in (or in		
partnership with teams in) developing		
countries.		
old)	100%	
	67%	
	33%	
cs		
	partnership with teams in) deve countries.	

#### **Mission Measurement Insight**

The program produces impacts in Influential Research for beneficiaries working in a highly specific and relevant topic area. Cost-per-outcome is high compared to benchmark and does not include costs of running the event, but awards are for proposed projects. Higher-quality evidence could be implemented by measuring the impact of the award on this proposed work over the course of the year, which may represent secondary outcomes for the program. Surveying scientists' about how the award has allowed them to improve their practice would also improve evaluation of the impact.

#### Outcomes

#### Primary Outcome: Influential Research

This outcome is satisfied if an individual has achieved all of the following within the past year: - Attained access to capital for R&D

- Developed knowledge management systems including systems for creating, retaining and transferring knowledge to enable innovation

- Developed new insights through scientific or empirical research to enable innovation

Secondary Outcome(s): Climate Change Science and Awareness, Climate Change Adaptation

#### Self-Reported Data

40%	5	2	\$42,500
Efficacy Rate % beneficiaries achieving a positive outcome	<b>Program Reach</b> # of beneficiaries served	Actual Outcomes Total # of beneficiaries achieving a positive outcome	Cost per Outcome Budget / Actual Outcomes

#### Level of Data Reported

Level 1	RCT or quasi-experimental	Based on 2 of 5 participants winning awards. This is only
Level 2	Pre-post or cross-sectional	anecdotal evidence gathered from conversation with the
Level 3	Point-in-time study	<ul> <li>winners. Winners of previous editions are invited to the ne year's edition of the Green Chemistry Conference to prese</li> </ul>
Level 4	Performance metrics /stats	on the progress of their project.
Level 5	Anecdotal evidence	

#### **Genomic Analysis**

<ol> <li>Demonstrates agriculture techniques for novel crops</li> <li>Demonstrates sustainable-agriculture techniques for novel climate conditions</li> </ol>
2. Demonstrates sustainable-agriculture techniques for novel climate conditions
3. Advocates for small and/or rural communities' adaptation needs
4. Encourages dairy and meat farms to transition to less intensive modes of production
5. Encourages various industries (aviation, auto, manufacturing) to adopt emissions-reducing policies
Program Intensity

#### Program intensity

Dosage	Frequency	Duration
12 to >24 hours	2-11 times every year	Not provided

Participants have 3 months to submit their proposals. If selected for the second round (top 50), they will have another 2 months to submit a more in-depth proposal. If shortlisted (top 50) they will pitch their project at the Green Chemistry Conference - where winners will be announced.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
The Elsevier Foundation Green and	400/	¢ 42 500
Sustainable Chemistry Challenge	40%	\$42,500
Impact Genome Benchmark <sup>*</sup> for this	020/	¢ 2 C 7 C 0
Outcome	82%	\$36,768
* The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome databas	se that target this same outcome.	

The data above was reported by The Elsevier Foundation in March 2019



#### African Journal Partnership Program: **Research without Borders**



Name	African Journal Partnership Program
Genome	Capacity Building

#### **Program Overview**

Program Name	Research without Borders
Program Type	Capacity Building
Beneficiary Type	Organizations
Budget	\$60,000

#### Description

To boost the impact, quality and discoverability of African health research, the Elsevier Foundation created "Research without Borders" (RwB) a skills-based volunteering partnership with the African Journal Partnership Program (AJPP) a high profile mentoring program for African health journals supported by NIH and NLM and leading US and UK health journals such as the Lancet. RwB builds capacity within the African health journals by tapping Elsevier volunteer expertise in publishing, marketing, operations and technology.

#### **Program Logistics**

Location:	Democratic Republic of the Congo, Ethiopia, France, Ghana, Kenya, Malawi, Mali, Netherlands, Rwanda, Sierra Leone, Uganda, United States of America,	
	Zambia	
Key Demograph	nics	
	The program primarily serves the	
	Editorial teams of African Health	
Core Beneficiary	Journals. It also offers volunteering	
Group:	experiences to Els. employees & builds	
	their knowledge of the African research	
	ecosystem.	
Mission Massument Insight		

#### Mission Measurement Insight

The project works with specific beneficiary, scientific health journals in Africa, at a cost-per-outcome that is in line with the sector benchmark. Current evaluation aggregates survey data from beneficiary organizations and volunteers that focuses primarily on outputs around organizational capacity building. Examining impact for organizations on the Influential Research outcome, perhaps by measuring the change/increase in contribution of the journals to new scientific knowledge, would provide higher quality evidence. The program also reports that they will collect additional quantitative data to inform impact evidence in 2019.

#### Outcomes

#### Primary Outcome: Influential Research

This outcome is satisfied if an organization has achieved at least one of the following within the past year:

- Developed new insights in the field through scientific or empirical research

- Funded / established influential research projects that resulted in publications within the past vear.

#### Self-Reported Data

100%	10	10	\$6,000
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a positive outcome	# of beneficiaries served	Total # of beneficiaries achieving a positive outcome	Budget / Actual Outcomes

#### Level of Data Reported

Level 5	Anecdotal evidence
Level 4	Performance metrics /stats
Level 3	Point-in-time study
Level 2	Pre-post or cross-sectional
Level 1	RCT or quasi-experimental

The African Journal Partnership Program conducts an annual evaluation survey across the 10 journals mapping progress on a whole number of indicators including participation in the Elsevier Foundation RwB program. In addition, each Elsevier volunteer produces an evaluation and progress report covering their capacity building assignment with the African journals. 13 volunteers participated in 2018. Program reports that it will try to incorporate additional quantitative measures in the upcoming year.

#### **Genomic Analysis**

#### Most Emphasized Activities ("Genes") in this Program

1. Strengthen the impact of African Journals by improving quality and discoverability through targeted mentoring teams.

2. Improve visibility of African research by working to submit applications to scholarly indexes.

3. Build journal websites, evolve editorial board practices and improve the pool of authors and reviewers. \_\_\_\_\_

4. Work to develop a strategic business plan, usually with a sustainable open access business model

5. Support knowledge exchange, training of authors, reviewers and journalists in Africa

#### **Program Intensity**

Dosage	Frequency	Duration
Not provided	Not provided	1 week to <1 month

Most volunteers spend about 2 to 2 and half weeks in an African country working with the African journal teams. For example, in 2017, we had a total of 20 Elsevier volunteers contribute 48 weeks of time across 9 African countries.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Research without Borders	100%	\$6,000
Impact Genome Benchmark <sup>*</sup> for this	050/	¢1 440
Outcome	85%	\$1,442

The data above was reported by African Journal Partnership Program in March 2019







#### Organization Overview

Name	The World Academy of Sciences
Genome	Innovation

#### **Program Overview**

D Ni	Elsevier Foundation Cooperation on	
Program Name	Sustainability Science	
Program Type	Capacity Building	
Beneficiary Type	Individuals	
Budget	\$80,000	

#### Description

The collaboration between TWAS and the Elsevier Foundation stems from the implications of the UN 2030 Agenda and the release of the Sustainable Development Goals. TWAS will i) support PhD students traveling to hosts labs to carry out research in an area of sustainability science ii) run a sustainability case-study competition among TWAS/OWSD students iii) implement a sustainability visiting expert programme iv) organize a symposium on sustainability at each TWAS Conference.

#### **Program Logistics**

	Asia: 23 countries, Africa: 50 countries, South America: 6 countries. North		
Location:	America: 5 countries, Oceania: 4		
	countries		
Key Demographics			
	The program primarily serves PhD		
	students from developing countries,		
Core Beneficiary	institutions in developing countries and		
Group:	LDCs in particular, researcher at both		
	senior and junior level associated with		
	TWAS.		

Age	
Young Adults (19-30 years old)	60%
Adults (31-64 years old)	40%
Sex	
Male	68%
Female	32%
Additional Characteristics	
Low-Income or Economically Disadvantaged	100%

#### **Mission Measurement Insight**

The program achieves outcomes for a low cost-per-outcome compared to benchmark. Current evaluation is based on selfreported data from awardees, so a higher-quality evidence of impact could be derived through conducting a point-in-time or pre/post survey with participants on how the program improved their research capacity. The current program description and evidence also appears to consolidate impacts on different groups of target beneficiaries. By teasing apart activities into distinct programs (visiting experts, student programs, and the symposium could be analyzed separately), TWAS' impact could become clearer.

#### Outcomes

#### Primary Outcome: Influential Research

This outcome is satisfied if an individual has achieved all of the following within the past year: - Attained access to capital for R&D

- Developed knowledge management systems including systems for creating, retaining and

transferring knowledge to enable innovation

- Developed new insights through scientific or empirical research to enable innovation

Secondary Outcome(s): Influential Research

#### Self-Reported Data

40%	25	10	\$8,000
Efficacy Rate % beneficiaries achieving a	Program Reach # of beneficiaries served	Actual Outcomes	Cost per Outcome Budget / Actual Outcomes
positive outcome		achieving a positive	budger, read outcomes
		outcome	

#### Level of Data Reported

Level 5	Anecdotal evidence
Level 4	Performance metrics /stats
Level 3	Point-in-time study
Level 2	Pre-post or cross-sectional
Level 1	RCT or quasi-experimental

The components of the programme reached: 17 students supported directly, 8 experts supported with further impact on the institutions they visited, at least 180 symposium participants. Many experts develop successful collaborations which results in publications. Similarly, students also obtain publications as a result of their research. Based on reporting received from awardees, 10 of 25 experts & students achieved the outcome.

#### **Genomic Analysis**

Most Emphasized Activities ("Genes") in this Program
1. Allow PhD candidates to joinn their study/research programme
2. Stimulate awareness for sustainability issues and transformational science
3. Catalyze transfer of skills and capacity building especially in LDCs
4. Facilitate scientific cooperation between experts scientists and researchers in less developed countries
5. Prompt a discussion about sustainability issues and global challenges among reseachers in developing countries

#### **Program Intensity**

Dosage	Frequency	Duration	
Not provided	Not provided	Not provided	

The dosage, frequency and duration vary from award to award: some visiting experts visit a host institute for only 10-15 days, others longer. PhD students engage with their project for 3-4 years. The symposium involves scientists for 3 hours, but has a longer lasting ripple effect.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Elsevier Foundation Cooperation on	100/	¢0.000
Sustainability Science	40%	\$8,000
Impact Genome Benchmark <sup>*</sup> for this	82%	\$36,768
Outcome	82%	
The average Efficacy Rate and Cost Per Outcome of al programs in the Impact Genome database that target this same outcome.		

The data above was reported by The World Academy of Sciences in March 2019



#### Medical Library Association, Inc.: Librarians Without Borders ® E-library Training



Name	Medical Library Association, Inc.
Genome	Capacity Building

#### **Program Overview**

D N.	Librarians Without Borders® E-library	
Program Name	Training	
Program Type	Capacity Building	
Beneficiary Type	Organizations	
Budget	\$45,000	

#### Description

The Librarians without Borders® E-library Training Initiative improves access to critically important health information in under-served countries through training in information retrieval and library information assistance. Funded by the Elsevier Foundation since 2007, the program has conducted Hinari/Research4Life (R4L) workshops (www.research4life.org) and developed/updated training material for R4L programs. Since 2015, mini-grants have been awarded to individuals to conduct workshops.

#### **Program Logistics**

Location:	Asia: 22 countries, Europe: 9 countries, Africa: 51 countries, North America: 12 countries, South America: 5 countries, Oceania: 12 countries		
Key Demographics			
	The program primarily serves researchers. lecturers. students. health		
Core Beneficiary	practitioners and staff from NGOs and		
Group:	governmental agencies that are		
	interested in the research material from		
	the 5 programs.		

#### Mission Measurement Insight

The program implements a train-the-trainer approach to build organizational capacity in under-served countries to obtain health information. Although the program wishes to impact organizations, current evidence is based on work with individuals. This likely explains the low cost-per-outcome compared to benchmark. The program is aware of the challenges in measuring impact based on training individuals and sending them back to their home institutions, but quality of evidence could be improved through use of existing pre/post surveys or piloting some longitudinal measurement that asks trainers to report on organizational impact.

#### Outcomes

#### Primary Outcome: Organizational Effectiveness

This outcome is satisfied if an organization has achieved all of the following within the past year: - Implemented evidence-based practices to achieve target outcomes

- Has a high efficacy rate measured by the percentage of participants who are achieving target outcomes

#### Secondary Outcome(s): Influential Research

#### Self-Reported Data

100%	1500	1500	\$30
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a	# of beneficiaries served	Total # of beneficiaries	Budget / Actual Outcomes
positive outcome		achieving a positive	
		outcome	

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

Based on estimated individuals the program worked with. There are two groups - people specifically being trained and those who access/use the training material. For those specifically being trained, there is completion of 'hands on' exercises which are gradable. For the face-to-face group, there also are pre and post-workshop surveys and six month follow-up about outcomes. For those accessing training material, the only info is # of downloads.

#### **Genomic Analysis**

#### Most Emphasized Activities ("Genes") in this Program

1. Provide training for access to Hinari and other Research4Life (R4L) programs - that grant access to research information in low-income countries

- 2. Conduct face-to-face 'train the trainers' workshops and e-learning courses for users
- 3. Develop and update training modules for workshops and e-learning courses
- 4. Coordinate mini-grants to recipients of the MLA/Elsevier Foundation R4L grants
- 5. Communicate with and support training by various individuals and organizations; often
- through the R4L Capacity Development team

#### **Program Intensity**

Dosage	Frequency	Duration
Not provided	One time only	Not provided

Train the Trainers workshops can be 2-4 days and up to 24 hours of instruction; e-learning courses can be 6-7 hours over 2 weeks. The workshops have different objectives as trainers and users have different needs. Follow-up after these timelines is also conducted.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Librarians Without Borders® E- library Training	100%	\$30
Impact Genome Benchmark <sup>*</sup> for this	79%	\$11.839
Outcome *The average Efficacy Rate and Cost Rer Outcome of all programs in the Impact Genome database		÷11,059

The data above was reported by Medical Library Association, Inc. in March 2019





#### IMC Weekendschool: IMC Weekendschool Amsterdam West



#### Organization Overview

Name	IMC Weekendschool
Genome	Youth Development
Program Overview	

# Program Name IMC Weekendschool Amsterdam West Program Type Direct Service Beneficiary Type Individuals Budget \$193,086

#### Description

IMC Weekend School Amsterdam West is a supplementary school for motivated children (aged 10-14) in an underprivileged neighborhood, often of immigrant backgrounds. Through a three-year course, professionals (volunteers) introduce students to a wide range of professions (fifteen on average) and also give training in presentation, research, debate and conflict resolution. To give students insight in possible future professions and an allround character education.

#### **Program Logistics**

Location:	Netherlands	
Key Demographics		
Core Beneficiary Group:	The program primarily serv the age between 10 and 14 underpriviledged neighbou	4 of
Age		
K-12 (5-18 years old)	)	33%
Young Adults (19-30	) years old)	67%
Sex		
Male		50%
Female		50%
Additional Characteristi	ics	
Low-Income or Eco	nomically Disadvantaged	80%
Single Parents		20%

#### **Mission Measurement Insight**

The program works with students from demographics for whom Youth Development outcomes are highly relevant Based on the nature of the work, they may also be producing impact on job readiness for these students. The program features a cost-per-outcome in line with the benchmark, and does so while working with students extensively over 3 years. Current evidence is based on internal monitoring systems and could be improved by incorporating externally produced valid instruments, as well as ensuring that evidence covers all criteria of the outcome.

#### Outcomes

#### Primary Outcome: Social and Emotional Skills

This outcome is satisfied if an individual has achieved all of the following within the past year: - Achieved a positive identity / behaviour including self-awareness, emotion and behaviour management and self-confidence

- Achieved positive connections including connections with peers, adults and community
- Developed interpersonal skills including communication and collaboration skills, problem-
- solving and conflict resolution skills, leadership skills and cultural sensitivity skills

Secondary Outcome(s): Civic Engagement

#### Self-Reported Data

100%	120	120	\$1,609
Efficacy Rate % beneficiaries achieving a positive outcome	<b>Program Reach</b> # of beneficiaries served	Actual Outcomes Total # of beneficiaries achieving a positive outcome	Cost per Outcome Budget / Actual Outcomes

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

Out of these 120 students, all students improve on the Social and Emotional Skills. During the three years that students of IMC Weekendschool, they are monitored twice a year by their teacher in a student monitoring system. The seven competences that are monitored are asking questions, working together, talking to one another, trying new things, presenting, being aware of yourself and others and having an influence.

#### **Genomic Analysis**

Most Emphasized Activities ("Genes") in this Program	
1. Cultivate collaboration/teamwork skills	
2. Cultivate communication/presentation skills	
3. Utilize external program facilitators	
4. Utilize robust adult mentoring offerings	
5. Utilize robust peer mentoring offerings	

#### **Program Intensity**

Dosage	Frequency	Duration
12 to >24 hours	Once every week	1 year or more

Students come to IMC Weekendschool 80 sundays over a period of 3 years.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
IMC Weekendschool Amsterdam	100%	\$1,609
West	100%	\$1,009
Impact Genome Benchmark <sup>*</sup> for this	80%	\$2.044
Outcome	00%	\$ <b>2</b> ,0 <del>44</del>

The data above was reported by IMC Weekendschool in March 2019



#### Imperial College London: Maker Challenge Programme

#### Organization Overview

Name	Imperial College London
Genome	Innovation

#### **Program Overview**

Maker Challenge Programme
Direct Service
Individuals
\$403,340

#### Description

The Maker Challenge Programme is a hands-on vocational skills training programme for independent young people aged 14-18 years of age from our local community in White City, a densely populated ethnically diverse area with high levels of material deprivation. Supported by Imperial staff and student mentors participants learn a range of technical skills using a variety of traditional and cutting edge technology and are able to create, design and turn their ideas into prototypes.

#### **Program Logistics**

Locations	United Kingdom of Great Britain and
Location:	Northern Ireland

#### **Key Demographics**

Core Beneficiary Group:	The program primarily serves 14 - 18 year olds (GSCE and A-Level students) from local state schools with 80- receiving free school meals and from low-income families	
Age		
K-12 (5-18 years old	)	100%
Sex		
Male		57%
Female		43%
Additional Characterist	ics	
Low-Income or Eco	nomically Disadvantaged	99%
Other		11%

#### **Mission Measurement Insight**

The program supports students for whom innovation skills and STEM interest are highly-relevant outcomes. A high cost-peroutcome compared to the benchmark may be due to working with students for approximately 50 contact hours or due to the project's nature as a "making" program that requires lots of materials to conduct. Current evidence is based on internal pre/post surveys that focus on "making" skills. Evaluation of impact could be improved by broadening the scope of this measurement to examine growth on innovation skills more generally.

#### Outcomes

#### Primary Outcome: Strengthen Innovation Skills

This outcome is satisfied if an individual has achieved all of the following within the past year: - Demonstrated critical and creative thinking skill development (e.g., problem-solving skills,

analytical skills, ability to generate alternative solutions, etc.)

- Demonstrated organizational skill development (e.g., time management, planning, task persistence, goal-setting, etc.)

- Developed interpersonal skills including communication and collaboration skills, problemsolving and conflict resolution skills, leadership skills and cultural sensitivity skills

Secondary Outcome(s): Strengthen Learning Skills, STEM Interest, Stimulate Entrepreneurship Self-Reported Data

10	0%	84	84	\$4,802
% beneficiarie positive	<b>cy Rate</b> es achieving a outcome	Program Reach # of beneficiaries served	Actual Outcomes Total # of beneficiaries achieving a positive outcome	Cost per Outcome Budget / Actual Outcomes
Level of	Data Repo	rted		
Level 1	RCT or qu	asi-experimental	100% of participants learnt new	5
Level 2	Pre-post	or cross-sectional	<ul> <li>design, develop and prototype their own idea - using a diverse range of creative, analytical and problem-solving s alongside critical life skills. The data was collected via pre ar post project evaluation surveys and informal feedback at 1 end of each session to all participants in their cohorts duri the 2017-18 academic year.</li> </ul>	
Level 3	Point-in-ti	me study		
Level 4	Performa	nce metrics /stats		
Level 5	Anecdota	evidence		
Genomi	ic Analysis		······································	
Most Em	nphasized Act	tivities ("Genes") in this Pro	ogram	
		sign and technical opports to design and protoype	tunities for local young pe e an idea	ople through a series
	ps technical v cutting-edge	•	de variety of traditional wo	
3. Provide	es practical bu	usiness skills training to pa	articipants	

4. Develops critical life skills, including team working, communication, problem-solving

5. Provides a new perspective for participants to consider alternative education routes through to employment

#### Program Intensity

Dosage	Frequency	Duration
Not provided	Once every week	1 month to <6 months

The Maker Challenge Programme runs two different models. One for participants during term time (autumn/winter and spring) providing x3 (6hrs) day long workshops and x10 (3hrs) after school sessions. There is also a summer intensive programme outside term-time providing x9 day long workshops. 46 young people took part in the term-time programme; 38 during the summer intensive outside of term-time.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Maker Challenge Programme	100%	\$4,802
Impact Genome Benchmark <sup>*</sup> for this Outcome	82%	\$713
The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome databa The data above was reported by Imperial College Londo	5	Powered



#### The New York Academy of Sciences: Afterschool STEM Mentoring Program



#### **Organization Overview**

Name	The New York Academy of Sciences
Genome	STEM

#### **Program Overview**

Program Name	Afterschool STEM Mentoring Program
Program Type	Direct Service
Beneficiary Type	Individuals
Budget	\$450,000

#### Description

The Academy's Afterschool Science Mentoring Program trains and places young, dynamic scientists and engineers in existing community-based afterschool programs to teach and mentor kids, giving them the unique opportunity to learn from a real science professional and to actively participate in science related activities.

#### **Program Logistics**

Location:



United States: New York

#### **Key Demographics**

	The program primarily serve	s middle	
Core Beneficiary	school students, including 4	school students, including 40% ELL	
Group: students and 78.9% elig		for	
	free/reduced lunch.		
Age			
K-12 (5-18 years o	old)	100%	
Sex			
Male		50%	
Female		50%	
Race			
Hispanic or Lating	)	40%	
Black or African American		32%	
Asian or Pacific Islander		15%	
White or Caucasian		13%	
Additional Characte	ristics		
Low-Income or E	conomically Disadvantaged	79%	
Newcomers, Imm	nigrants, and/or Refugees	40%	

#### Mission Measurement Insight

The program works with populations of students for whom STEM Interest is a highly relevant outcome and achieves a low cost-per-outcome compared to benchmarks. Current evidence is strong and based on surveys of student STEM attitudes at multiple points across the school year. This impact evaluation could be bolstered by using an externally validated instrument or set of questions to examine STEM interest and intent to participate in the future and by comparing results with non-program students.

#### Outcomes

#### Primary Outcome: STEM Interest

This outcome is satisfied if an individual has achieved at least one of the following within the past year:

- Reported statistically significant higher science, technology, engineering, and/or math interest on a generally accepted survey measure (i.e., S-STEM, STEM-CIS)

- Taken additional steps to pursue their interest in STEM (e.g., signs up for an additional class, enrolls in a follow-on program, declares a major, joins a club, etc.)

Secondary Outcome(s): STEM Persistence, STEM Proficiency

#### Self-Reported Data

50%	1250	625	\$720
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a	# of beneficiaries served	Total # of beneficiaries	Budget / Actual Outcomes
positive outcome		achieving a positive	
		outcome	

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

We evaluate the students participating in the program at the beginning of the school year, midyear, and again at the end of the year to assess their changing attitudes towards STEM and their desire to continue STEM studies. On these pre/post surveys, 50% of the 1,250 students showed achievement of STEM Interest. 80% of the students who participated in the program completed the program.

#### **Genomic Analysis**

Most Emphasized Activities ("Genes") in this Program
1. Encourages student collaboration and teamwork
2. Promote communication and presentation skills
3. Promote discussion and conversation in carrying out lessons
4. Offer extra-curricular (summer, evening, etc.) learning opportunities
5. Utilize mentoring on behalf of learning

#### **Program Intensity**

Dosage	Frequency	Duration
1 to <3 hours	Once every week	1 month to <6 months

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
Afterschool STEM Mentoring Program	50%	\$720
Impact Genome Benchmark <sup>*</sup> for this Outcome	62%	\$1,124

The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome database that target this same outcome.

The data above was reported by The New York Academy of Sciences in March 2019





#### Organization Overview

Name	Organization for Women in Science in	
Name	the Developing World (OWSD)	
Genome	Innovation	

#### **Program Overview**

	OWSD-Elsevier Foundation Awards for
Program Name	Early-Career Women Scientists in the
	Developing World
Program Type	Awards, Prizes & Competitions
Beneficiary Type	Individuals
Budget	\$60,000

#### Description

Since 2012 the Awards recognize the achievements of researchers who have made significant contributions to the advancement of scientific knowledge. Prizes are awarded annually on a rotating basis among the disciplines of Biological Sciences, Engineering Sciences and Physical Sciences. Each of the five winners will present their papers at the annual conference of the American Association for the Advancement of Science (AAAS), which is attended by leading scientists, engineers, educators and policymakers from around the world.

#### **Program Logistics**

Location:	Bangladesh, Bolivia, Gambia, Nepa	al	
Key Demographics			
Core Beneficiary Group:	The program primarily serves early	career	
	(within 10 years from their PhD) women		
	scientists in the developing world.		
Age			
Adults (31-64 years o	old) 10	00%	
Sex			
Female	10	00%	
Additional Characteristi	cs		

#### **Mission Measurement Insight**

The program monetary awards and opportunities to develop social capital and network around science for a demographic to whom this is a particularly relevant outcome. The program does this at a low cost-per-outcome, although budget does not take into account the cost of the event, only the prize money. Higher-quality evidence could be implemented by measuring the impact of the award on scientists' work over the course of the year and surveying participants about how the award has allowed them to improve their practice.

#### Outcomes

#### Primary Outcome: Influential Research

This outcome is satisfied if an individual has achieved all of the following within the past year: - Attained access to capital for R&D

- Developed knowledge management systems including systems for creating, retaining and transferring knowledge to enable innovation

- Developed new insights through scientific or empirical research to enable innovation

#### Self-Reported Data

100%	
Efficacy Rate	
% beneficiaries achieving a	
positive outcome	

5 Program Reach # of beneficiaries served

Actual Outcomes Total # of beneficiaries achieving a positive outcome

number of media interviews.

5

\$12,000 Cost per Outcome

Budget / Actual Outcomes

The main outcome of the program is to recognize excellence

and provide women scientists with a platform to showcase

their research and make meaningful connections. Winners

were given the opportunity to share their research at the

Awards ceremony in front of a distinguished audience of

international scientists. All winners were also engaged in a

#### Level of Data Reported

Level 5	Anecdotal evidence
Level 4	Performance metrics /stats
Level 3	Point-in-time study
Level 2	Pre-post or cross-sectional
Level 1	RCT or quasi-experimental

#### **Genomic Analysis**

Most Emphasized Activities ("Genes") in this Program

1. The winners receive a \$5,000 cash prize plus a supplementary cash award of \$2,500 per awardee made by private donors (former President of the AAAS, Dr. Gil Ommen) since 2014.

2. Hosting the Awards at AAAS offers networking opportunities: awardees often have personal meetings with influential players on the world stage, including national ambassadors, ministers, the AAAS president and vice president, and heads of department of U.S. universities.

3. Enhanced visibility: Elsevier's Global Communication team donates time from their PR agencies dedicated to pitching the winner's and their accomplishments to major news outlets.

4. Continued engagement: opportunities are identified for the winners to attend relevant conference, speak at panels, lead workshops, etc.

5. The award winners are provided with access to Elsevier products, ScienceDirect and Scopus.

#### **Program Intensity**

Dosage Frequency		Duration
12 to >24 hours	Once every year	1 week to <1 month

During the AAAS week, visits to universities, scientific institutions and embassies are organized, plus networking dinners and media engagement. Some winners engage with the program for a longer time, taking part in other conferences and speaking at panels. An alumnae network is being developed.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
OWSD-Elsevier Foundation Awards		
for Early-Career Women Scientists in	100%	\$12,000
the Developing World		
Impact Genome Benchmark <sup>*</sup> for this	020/	¢2C 7C0
Outcome	82%	\$36,768
* The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome databas	e that target this same outcome.	
The data above was reported by Organization for Wome	en in Science in the	POWERED BY:
Developing World (OWSD) in March 2019		

Portia:

Elsevier Foundation Partnership/Gender Summit



#### Organization Overview

Name	Portia
Genome	Policy Development
Program Overview	

Drogram Namo	Elsevier Foundation Partnership/Gender	
Program Name	Summit	
Program Type	Research & Analysis	
Beneficiary Type	Organizations	
Budget	\$30,000	

#### Description

Promoting and disseminating research on gender issues in science to improve quality of research and innovation, and building a global community of experts and practitioners. The aim of the Coalition we are building is to connect research and innovations communities around the world with the development communities, especially those involved in achieving the UN SDG agenda, to raise awareness through evidence and consensus on gender issues in scientific research, innovation and development interventions. The jointly created outcomes are recommendations, awareness arising activities targeting each community and policy makers. In my mind, these communities are our beneficiaries. The main vehicles for creating the Coalition are the Gender Summit platform for dialogue and its associated network of institutions, experts and practitioners, the Gender Summit Newsletter, Portia's and GS's social media, and Portia's membership of the Sustainable Development Solutions Network, Recommendations from the Gender Summit in Kigali were sent to over 1000 contacts in Africa and, from the Gender Summit in London, were sent to the European Parliament, European Commission, and the GS network

#### **Program Logistics**

Location: United Kingdom of Great Britain and Northern Ireland

#### Key Demographics

 Core Beneficiary
 The program primarily serves experts

 Group:
 and practitioners in science and policy

#### Mission Measurement Insight

The program implements a diverse range of activities in working towards increased awareness of gender issues in the research and global development communities. Current evaluation and reporting is heavily focused on output measures and program activities, not outcomes. The organization and funders should consider defining a logic model for the Gender Summit program, clearly identifying an intended outcome (which may not be the selected "Form Coalitions") and assessing whether existing activities are aligned with this. This would allow the program to develop evaluation strategy that could meaningfully measure impact against these outcomes.

#### Outcomes

#### Primary Outcome: Form Coalitions

This outcome is satisfied if an institution has achieved all of the following within the past year: - Organized a group of coalition members large and / or influential enough to accomplish an advocacy goal

- Developed a clearly defined, common purpose that unites coalition members
- Established an effective leadership system that actively engages coalition members and promotes shared decision making

#### Secondary Outcome(s): Influential Research, Organizational Effectiveness, Issue Awareness

#### Self-Reported Data

100%	500	500	\$60
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
% beneficiaries achieving a	# of beneficiaries served	Total # of beneficiaries	Budget / Actual Outcomes
positive outcome		achieving a positive	
		outcome	

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

We have jointly created specific outcomes such as recommendations for policy makers, take up of evidence to support decisions. In 2018 we had 2 Gender Summit events, attended by 500 people and attracting 100 speakers. Other impacts: GS Newsletter (6000 subscribers), Twitter (600 followers), SDSN (over 800 member institutions across 6 continents), 2 special journal issues (Scientific African and Interdisciplinary Science Reviews), an invited paper for Columbia Journal of International Affairs, TV interview with NKK in Japan, and an invitation to present at the National Assembly in South Korea.

#### **Genomic Analysis**

#### Most Emphasized Activities ("Genes") in this Program

1. Builds understanding among science and policy communities about gender issues in research and innovation

2. Targets mega- and national trends in science and technology as framework for advocacy

3. Works with major international player organisation to create systemic change for gender equality in STEM

4. Expands and utilises the Gender Summit platform for dialogue to enable action on gender equality in STEM in many countries

5. Works through networks and collaboration with gender and STEM experts and practitioners

#### **Program Intensity**

Dosage	Frequency	Duration
Not provided	Not provided	Not provided
Sector Benchmark Data		
Program Name	Efficacy Rate	Cost Per Outcome
Elsevier Foundation	100%	¢c0

Partnership/Gender Summit	100%	\$60		
Impact Genome Benchmark <sup>*</sup> for this	N/A	N/A		
Outcome		19/77		
The average Efficacy Rate and Cost Rer Outcome of all programs in the Impact Genome database that target this same outcome.				

The data above was reported by Portia in March 2019



#### Impact Genome Scorecard® DataKind:



#### Organization Overview

Name	DataKind
Genome	Capacity Building

#### **Program Overview**

Program Name	DataDive
Program Type	Capacity Building
Beneficiary Type	Organizations
Budget	\$75,000

#### Description

DataDives are high energy, marathon-style, 48-hour events where nonprofits work alongside teams of data scientists, developers and designers to use data to gain insight into their programs, address key problems in the communities they serve and advance their missions. DataDives welcome 50-150 the brightest minds in data science, social change and technology. In 2018, the Elsevier Foundation partnered with DataKind for a DataDive in NYC in June, and one in London in November.

#### Program Logistics

	United Kingdom of Great Britain and
Location:	Northern Ireland, United States of
	America

#### **Key Demographics**

Core Beneficiary Group:	The program primarily serves nonprofits	
	usually located in the areas where the	
	DataDive takes place.	

#### **Mission Measurement Insight**

The program achieves impacts for participating organizations at a cost-per-outcome in range for the sector benchmark. Longer-term evaluation of the impact of the data dives on organizations' effectiveness would provide higher-quality of evidence than surveys in the immediate aftermath of the hackathon. Measuring whether organizations recognize improved efficacy in their own outcomes after participation (and especially if compared to non-participating organizations) would allow DataKind to assess the real impact of the DataDive intervention.

#### Outcomes

#### Primary Outcome: Organizational Effectiveness

This outcome is satisfied if an organization has achieved all of the following within the past year: - Implemented evidence-based practices to achieve target outcomes

- Has a high efficacy rate measured by the percentage of participants who are achieving target outcomes

Secondary Outcome(s): Develop Technological Skills

#### Self-Reported Data

%

	-		
100%	7	7	\$10,714
Efficacy Rate	Program Reach	Actual Outcomes	Cost per Outcome
6 beneficiaries achieving a	# of beneficiaries served	Total # of beneficiaries	Budget / Actual Outcomes
positive outcome		achieving a positive	
		outcome	

#### Level of Data Reported

Level 1	RCT or quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics /stats
Level 5	Anecdotal evidence

All teams of nonprofits+data scientists are asked to present their findings at the end of each DataDive. We also receive a report from DataKind with more in-depth information about outcomes and next steps for the nonprofits.

#### **Genomic Analysis**

#### Most Emphasized Activities ("Genes") in this Program

1. Matches nonprofit with low data and analytics skills with dedicated data scientists, developers and designers

2. Coaches nonprofits in how to leverage this new resource in their efforts to move the needle on the SDGs

\_\_\_\_\_

3. Serves as a unique opportunity for attendees to learn and test out new skill sets

4. Offers volunteers a platform to use their talents to produce actionable, meaningful results for mission-driven organizations

5. Allows participants to build cross-industry connections

#### **Program Intensity**

Dosage	Frequency	Duration
12 to >24 hours	Once every year	Less than 1 week

A DataDive is a 2-day hackathon run during a weekend.

#### Sector Benchmark Data

Program Name	Efficacy Rate	Cost Per Outcome
DataDive	100%	\$10,714
Impact Genome Benchmark <sup>*</sup> for this	79%	\$11,839
Outcome		, ,

\* The average Efficacy Rate and Cost Per Outcome of all programs in the Impact Genome database that target this same outcome.

The data above was reported by DataKind in March 2019

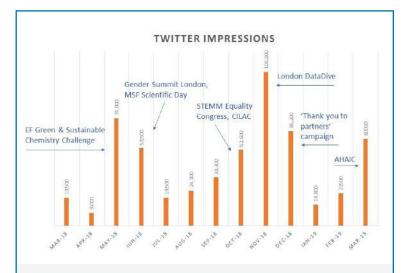




## Media Outreach

#### **External coverage**

Creating visibility for our Elsevier Foundation partnerships and projects is a core activity. Our goal is to raise awareness around the issues we support and to connect as directly as possible with our communities. We target a variety of outlets: traditional or "earned" media through pitches and press releases: 12 press releases between 2016-2018. Though traditional media remains challenging given our focus on "good news" stories which have a harder time competing for media attention, each year we receive major attention for our OWSD-Elsevier Foundation Women Scientists in Developing Countries Award program from top tier mainstream media. We also ensure a steady series of articles in Elsevier Connect, Elsevier's online news magazine with a monthly readership of 150-200,000 unique visitors a month. In 2016, 2017 and 2018 to date, we wrote 38 articles for Elsevier Connect about our partnerships: 16 in 2016, 14 in 2017, 11 in 2018. We also tap our social media and website channels and create several short videos



#### UNDERSTANDING OUR SOCIAL MEDIA IMPACT

We have found that better twitter results are achieved when we collaborate with colleagues across Elsevier who are also conducting social media campaigns. Examples of this include outreach around the Green & Sustainable Chemistry Challenge (GSCC) with Elsevier's Chemistry Journals team and tapping Elsevier's Global Communications expertise during the November 2018 DataDive in London. in addition, Twitter impressions and engagement rises when posts are tied to a specific event and highlight partners further amplifying our reach. Successful examples include: Amref's AHAIC conference, CILAC and the Gender Summit.

Our web presence grew from 2017, where impressions rose above 40,000 only once (GSCC, 42K) to 5 events in 2018 – the most successful being the London DataDive with 106K impressions. *Note:* Impressions on Twitter is the total number of all the times the Tweet has been seen. This includes not only the times it appears in a followers' timeline but also the times it has appeared in search or as a result of someone liking the Tweet. each year. Highlights from "earned" media in the past years include:

• Improving healthcare response to genderbased violence in Palestine (Nature Middle East, March 2019)

• Nepali researcher wins 2019 OWSD-Elsevier Foundation Award (Kathmandu Post, February 2019)

• Big data techniques for a better future (TWAS, February 2019)

• Antibiotics Resistance in Africa Needs Urgent Attention (SciDev, March 2018)

• Prize awarded to women scientists from developing world (SciDev, 2018)

• She May Be The Most Unstoppable Scientist In The World (NPR, 2017)

#### Videos

Since 2008, the Elsevier Foundation has produced over 38 short videos featuring our projects and showcased on our dedicated YouTube channel. Highlights from our 2018 videos include:

• 2018 OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World

• Elsevier Foundation Green & Sustainable Chemistry Challenge 2018

Additionally, we have started to experiment with different formats, such as short social media clips rather than longer videos: this allows us to reach our audience quickly and in a more engaging way, cutting production times and costs. We have also filmed short videos for Elsevier's Instagram and Twitter accounts for events like AHAIC and the London DataDive.

#### Website

We strive to maintain a dynamic website, posting content on a daily basis. Our website is supported with WordPress, an open source content management system, incurring few costs beyond hosting and occasional wireframe updates. In 2016, to ensure ongoing relevance, discoverability and responsive design, we relaunched the Elsevier Foundation website to fully reflect our new programs. We anticipate another website refresh in 2019.

#### Social Media

Social media brings its own rewards and special challenges. Maintaining an active Twitter channel in addition to a dynamic website is labor intensive for a small team and requires careful prioritization. However, the channels which we have developed provide us with a direct connection to our communities. March 2019 stats:

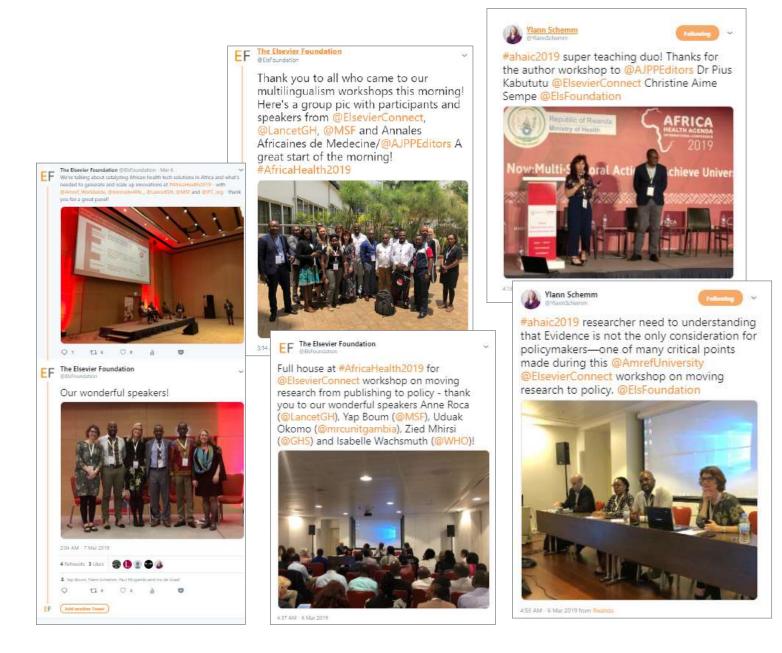
• Twitter @ElsFoundation currently has 2,900 followers, with a growth rate of about 2 followers per day in March .

• 97% of the Elsevier Foundation Twitter audience lists "Tech News" and "Technology" (76% and 73% in 2017) as their main interest, reflecting our efforts in embedding tech in our programs — and 99% lists "Science News".

We have also reached our audience through Elsevier's Instagram account when relevant: our coverage of the AHAIC Conference in March 2019 reached an average of 400 users per post.

#### Working with partners: the AHAIC example

We used twitter to share 5 different partner panels and workshops at Amref's AHAIC Conference in Kigali, Rwanda, March 2019. Uduak Okomo, winner of the 2019 OWSD-Elsevier Foundation Awards, was featured in a "Research to Policy" panel with Anne Roca (The Lancet) and Yap Boum (Epicentre Niger Research Centre) who also served as speakers in our "Catalyzing Health Tech Solutions in Africa" discussion with Amref, Innovate for Life and Iris de Graaf of IFC's Tech Emerge - Health Africa program. In addition, Research without Borders volunteers, Christine Aime-Sempe, Yasmina Ourharzoune worked with Dr. Pius Kabututu and Dr. Ernest Sumaili, editors from the Annales Africaines ds Medecine journal to deliver a Francophone panel on multilingualism in science communication and a journal training workshop.



# **Financial Overview**

# 2016-2018 Program Allocations

		2016	2017	2018
HEALTH & INNOVATION				
MSF/Doctors without Borders	Epicentre Niger Research Centre	\$100,000	\$100,000	\$100,000
Amref Health Africa	Jibu mLearning program	\$80,000	\$80,000	\$80,000
Sigma Theta Tau International	Nursing Faculty Leadership Academy	\$100,000	\$100,000	\$100,000
RESEARCH IN DEVELOPING COUNTRIES				
Int'l Society for Infectious Diseases	Hackathon			\$15,000
The Elsevier Foundation	Green and Sustainable Chemistry Challenge		\$27,660	\$55,000
African Journals Partnership Program	Research without Borders	\$60,000	\$60,000	\$60,000
The World Academy of Sciences	North South Collaboration in Sustainability	\$80,000	\$80,000	\$80,000
Medical Library Association	Librarians without Borders/ Research4Life training	\$45,000	\$45,000	\$45,000
DIVERSITY IN STM				
IMC WeekendSchool	Amsterdam health & science outreach	\$25,000	\$25,000	\$25,000
Imperial College London	White City Maker Challenge	\$100,000	\$100,000	\$100,000
New York Academy of Sciences	Afterschool STEM education	\$100,000	\$100,000	\$100,000
OWSD	OWSD-EF Awards	\$60,000	\$60,000	\$60,000
Portia	Gender Gap in SDGs	\$30,000	\$30,000	\$30,000
Gender inSITE	Gender, science and development program	\$20,000	\$20,000	\$20,000
TECHNOLOGY FOR DEVELOPMENT				
DataKind	DataDive		\$75,000	\$75,000
Amref - Innovate for Life	Innovate for Life Fund		\$50,000	\$50,000
Matching Gift		\$219,263	\$194,774	\$202,304
TOTAL		\$1,019,263	\$1,077.224	\$1,197,304

# 2019 Program Allocations

HEALTH & INNOVATION		
MSF/Doctors without Borders	Epicentre Niger Research Centre	\$100,000
Amref Health Africa	Innovate for Life Fund	\$50,000
Amref Health Africa	Jibu mLearning program	No cost extension
Sigma Theta Tau International	Nursing Faculty Leadership	\$100,000
RESEARCH IN DEVELOPING COUNTRIES		
The Elsevier Foundation-ISC3	Green and Sustainable Chemistry Challenge	\$28,000
The World Academy of Sciences	North South Collaboration in Sustainability	No cost extension
Medical Library Association	Librarians without Borders/Research4Life training	\$45,000
FAO	Research4Life eLearning Program	\$43,000
DIVERSITY IN STM		
IMC WeekendSchool	The Elsevier Foundation Big Data Program	\$33,000
Imperial College London	White City Maker Challenge	\$50,000
Girls Inc.	The Elsevier Foundation Data Analytics Preparation Program	\$100,000
OWSD	OWSD-EF Awards, Alumni and Leadership program	\$86,000
COACh	COACh-Elsevier Foundation Water Frist! Workshops	\$70,000
DataKind	DataDives	\$25,000
The ITEM	Philadelphia tech project	\$15,000
The Elsevier Foundation Volunteer Corps		\$70,000
Matching Gift		\$200,000
TOTAL		\$1,015,000

# Appendix

### **Elsevier Foundation Board Biographies**



Yuko Harayama Former Executive Member Council for Science and Technology Policy Cabinet Office of Japan



Nikunj Jinsi Global Head International Finance Corporation Venture Capital group

Dr. Yuko Harayama is the former Executive Member of the Council for Science and Technology Policy, Cabinet Office of Japan. She is the former Deputy Director of the Directorate for Science, Technology and Innovation, OECD.

She is a Legion D'Honneur recipient (Chevalier), and was awarded honorary doctorate from the University of Neuchâtel. Previously, she was Professor in the Department of Management Science and Technology at the Graduate School of Engineering of Tohoku University. She holds a Ph.D. in education sciences and a Ph.D. in economics, both from the University of Geneva.

Nikunj Jinsi joined IFC in 2003 and combines over 20 years of experience in various industry sectors, having worked and lived in Europe, Asia, Latin America and the US. Mr. Jinsi blends operational, entrepreneurial, investment banking and over 15 years of emerging market private equity experiences with unique global perspective on several industries. At IFC, Mr. Jinsi has led over 18 investments for which IFC acted as a (co-) lead and involving other leading private equity and strategic players in Asia, and currently sits on the boards of six Asian companies. Mr. Jinsi also is involved with IFC's LP investment program for venture funds in Asia, having evaluated several fund investment opportunities in China, Vietnam, Indonesia, Singapore and India, and sits on the Advisory Board of a leading China venture fund, and has been responsible for several fund investments in India. Prior to joining IFC, Mr. Jinsi was Managing Director and Head of the Singapore office for one of Asia's leading venture funds where he managed the team making investments in South East Asia and India, and was also responsible for managing several Asian LP relations. Prior to this, Mr. Jinsi spent 4 years in the Asian investment banking industry providing M&A and corporate finance services to clients throughout the region. In addition, Mr. Jinsi was the co-owner of South East Asia's largest independent marketing communications agency, which was successfully sold to Omnicom, the largest media marketing group in the world, in 2002. Mr. Jinsi obtained an MBA degree from Stanford University, attended as a Fulbright Scholar and has an MSc. degree in Electrical Engineering from Delft University of Technology, the Netherlands.



Beverly Malone CEO National League for Nursing



Emilie Marcus Executive Strategy Officer David Geffen School of Medicine UCLA

Beverly Malone's tenure at the NLN has been marked by a retooling of the League's mission to reflect the core values of caring, diversity, integrity and excellence, and a focus on advancing the health of the nation and the global community. She was ranked amongst the 100 Most Influential People in Healthcare by Modern Healthcare magazine in 2010 and 2015; and in 2016 she claimed 39<sup>th</sup> place amongst leading policy-makers, activists, health care professionals and corporate figures in health care, insurance and pharmaceutical industries. Within the last several years, Dr. Malone was elected to the Institute of Medicine and tapped to join the board of the Kaiser Family Foundation. Dr. Malone served on the Institute of Medicine's Forum on the Future of Nursing Education, contributing to IOM's groundbreaking report, "The Future of Nursing: Leading Change, Advancing Health," and on the Advisory Committee on Minority Health, a federal panel established to advise the secretary of Health and Human Services. Her career has mixed policy, education, administration and clinical practice. Dr. Malone has worked as a surgical staff nurse, clinical nurse specialist, director of nursing and assistant administrator of nursing. In 1996, she was elected to two terms as president of the American Nurses Association. In 2000, she became deputy assistant secretary for health within the US Department of Health and Human Services, following 4 years of service on President Bill Clinton's Advisory Commission on Consumer Protection and Quality in the Healthcare Industry. Prior to joining the NLN, Dr. Malone was general secretary of the Royal College of Nursing, the United Kingdom's largest professional union of nurses, from June 2001 to January 2007. She also served between 2002 and 2006, as a member of the UK delegation to the World Health Assembly; of the Commonwealth Nurses Federation; and of the Higher Education Funding Council for England.

Emilie Marcus is the Executive Strategy Officer at the UCLA David Geffen School of Medicine where she is responsible for working with the leadership of the school and hospital system to drive alignment between medical and graduate school education, biomedical research and clinical care for optimized health outcomes. Prior to joining UCLA in 2018, Emilie spent 20 years at Cell Press with the last 7 years as CEO and the last 15 years as Editor-in-Chief of the journal Cell. Under her leadership, Cell Press expanded beyond biomedicine to become an all-science publisher, launching successful journals in chemistry and energy and the new interdisciplinary journal iScience. She also introduced industry-leading innovations in peer-review, methods reporting to support reproducibility and expediting access to early versions of articles that are under consideration for publication. As Editor-in-Chief of Cell, Emilie was responsible for setting the long-term strategy for the journal and assessing cutting-edge high-impact conceptual advances in biomedical research globally. She is often looked to as a thought leader on issues facing scientific publishing including the value and robustness of the peer-review process, handling potential conflicts, scientific ethics and misconduct, supporting rigor and reproducibility, the impact of new information technologies and new publishing business models, and the uses and abuses of the impact factor as a measure of quality. Prior to joining Cell Press, Emilie had a successful research career, first at Yale University, where she received her PhD in Biology/Neuroscience in 1993, and then at the Salk Institute and University of California at San Diego. Emilie was also Editor of Neuron from 2001 to 2003.



Geraldine Richmond Presidential Chair in Science Professor of Chemistry University of Oregon

Prof. Geraldine Richmond is the Presidential Chair in Science and Professor of Chemistry at the University of Oregon. Her research has relevance to current issues in energy production, environmental remediation and atmospheric chemistry. Her teaching activities in the classroom and beyond focus on science literacy, science policy and building a strong and diverse science and engineering workforce in the U.S. and globally. Throughout her career she has been actively involved in efforts to increase the number and success of women in science and engineering. Richmond is a member of the National Academy of Sciences, the American Academy of Arts and Sciences and is a Fellow of the American Chemical Society (ACS), the American Physical Society (APS), the Association for the Advancement of Science (AAAS) and the Association for Women in Science. Richmond recently finished her term as President of AAAS and is currently the Chair of the Board of AAAS. She is also currently serving as a member of the National Science Board (President Obama appointee. She is the founding and current director of COACh, a grass-roots organization formed in 1998 that has helped in the career advancement of thousands of scientists and engineers in the U.S., Asia, Africa and Latin America.

### **Ex Officio Board Biographies**



Suzanne BeDell Managing Director Education, Reference and Continuity Elsevier



Márcia Balisciano Director Corporate Responsibility RELX

Suzanne BeDell joined Elsevier as Managing Director in September 2010. She has been a book publishing and information industry leader for almost 30 years focusing on the intersection of print and digital delivery for much of her career. Prior to joining Elsevier, she worked for ProQuest (a library aggregator) for 9 years where she led the development of the largest offering of aggregated books and journals for academic libraries.

Before that, Suzanne was Senior Vice President of Internet Products at Thomson Healthcare and Director of Electronic Product Development for Mosby. She also held a variety of positions in McGraw-Hill's College Division, including publisher of Primis, the first electronic custom publishing system for textbooks. Márcia Balisciano, MBE, Ph.D., leads global corporate responsibility (CR) for RELX Group. Engaging colleagues throughout the business, she works to ensure RELX Group's non-financial performance is a consistent source of competitive advantage and stakeholder confidence across key markets. She represents RELX Group on the UN Global Compact and serves on the steering group for the United Kingdom. She is a member of the Conference Board's Sustainability Council and Global Business Women Leaders Council.

She recently joined the Child Rescue Alert Development Board, a partnership between the UK National Crime Agency, the charity Missing People and Groupcall. She is founding director of London museum and educational facility, Benjamin Franklin House and was previously Special Advisor to the American Chamber of Commerce. A Fellow of the Royal Society of Arts, she holds an MA in International Relations from the University of Chicago and a PhD in Economic History from the London School of Economics. She was made a Member of the British Empire (MBE) in the Queen's 2007 Birthday Honours List.



Kumsal Bayazit CEO Elsevier



Youngsuk "YS" Chi Chairman, Elsevier Director of Corporate Affairs RELX President The Elsevier Foundation

Kumsal Bayazit was appointed Chief Executive Officer of Elsevier in February 2019. She has held multiple positions with RELX Group since 2004, most recently as Regional President Europe, Middle East and Africa at Reed Exhibitions. Before joining Reed Exhibitions in 2016, Kumsal was RELX Group's Chief Strategy Officer, responsible for driving strategic initiatives, technology strategy and portfolio management. Prior to that she served in several operational and strategic roles with LexisNexis.

Kumsal also chairs the Technology Forum at RELX Group and is a non-executive director at LSL Property Services plc. Prior to joining RELX Group in 2004, Kumsal spent several years at Bain & Company in their New York, Los Angeles, Johannesburg and Sydney offices.

Kumsal earned an MBA from Harvard Business School and is a graduate of University of California at Berkeley where she received a Bachelor's degree in Economics with honors. Youngsuk 'YS' Chi is an international businessman and a leader in the media and technology industry, and currently serves Elsevier and RELX Group in several different capacities. In his primary role as head of Corporate Affairs for RELX Group, he is responsible for government affairs, corporate communications, corporate responsibility, and Asia strategy for Elsevier's parent company. As non-executive Chairman of Elsevier, he works directly with governments, Elsevier customers and in industry associations worldwide. Mr. Chi also serves as President of the International Publishers Association, a global organization that represents the interests of more than 50 publishing industry association members from countries around the world.

Early in his career, as Chief Operating Officer of Ingram Book Group, Mr. Chi founded Lightning Source, the first ever printon-demand distributor and e-book services provider. After holding several senior executive positions at Ingram Book Group's parent company, he became President and Chief Operating Officer of Random House. Mr. Chi has also earned widespread respect for his ability to work across cultures. As founding Chairman of Random House Asia, he led efforts to make Random House the first foreign trade book publisher with local language publishing in Japan and Korea. Mr. Chi has served on numerous charitable, educational and industry boards, including Princeton University, Korean American Community Foundation and McCarter Theatre. He is also a member of the Executive Committee of the boards of Association of American Publishers and International Association of Scientific, Technical & Medical Publishers.



John Danaher President Clinical Solutions Elsevier



Hannfried von Hindenburg Senior Vice President Global Communications Elsevier

John Danaher, Elsevier's President, Clinical Solutions, is a prominent life-long leader and expert in health and the business of health. At Elsevier, he heads the Clinical Solutions business focused on improving patient outcomes through optimizing provider performance and patient engagement. Clinical Solutions is focused on delivering industry leading products focused on improving care at every stage in the patient journey.

Previously he headed Elsevier's Education business and led the transformation from a traditional publisher to an educational digital solutions provider focused on improving student outcomes. Prior to joining Elsevier, John was President of the Schools of Health Sciences and Nursing at Kaplan. He brings a great depth of experience in digital media in health care and education from his time at Kaplan, Discovery Communications, and as executive vice president of WebMD and part of the early management team. John has deep domain expertise and a successful track-record in managing health information businesses. His experience, in both government and the private sector, extends beyond the US and into global markets, including assignments and experience with Japan, Pakistan, the UK and Australia. Hannfried von Hindenburg is a seasoned communications professional with over 20 years of industry expertise spanning work across Asia, the U.S. and Europe. He has held numerous positions in both academia as well as journalism, publishing on international relations issues and appearing as an on-air anchor. Hannfried joined Elsevier in 2015 from the International Finance Corporation, a member of the World Bank Group, based most recently in Hong Kong where he oversaw communications for the Asian region.

During his time in Hong Kong and previously in Washington, D.C., Hannfried led initiatives focused on communications strategy, social media, thought leadership, corporate brand and reputation management. Prior to joining IFC, he spent nine years with Reuters in Germany, where he held positions in e-business development, as an editor and as a print and TV reporter in business, finance and economic policy.

### **Team Biographies**



Ylann Schemm Director The Elsevier Foundation Elsevier



Domiziana Francescon Program Officer The Elsevier Foundation Elsevier

As the Director, Ylann drives the Foundation's focus on advancing diversity in science, building research capacity, global health and embedding technology across the entire portfolio. Prior to joining the Foundation in 2008, Ylann served in diverse role in communications for Swets Information Services and the European Platform for Dutch Education, and publishing for Time Life Books. Ylann holds an MA in Film & Television Studies from the University of Amsterdam and a BA, magna cum laude in English from Amherst College. She currently also serves as Director of External Partnerships within Elsevier's Global Communications group, developing in depth corporate collaborations focusing on technology and the SDG's. Domiziana Francescon serves as the Elsevier Foundation's Program Officer and is a strong supporter of the company's Corporate Responsibility program. Domiziana obtained a master's degree in Book and Digital Media Studies at Leiden University in the Netherlands, with a specialization in Publishing Studies.



Maria Markova Treasurer Elsevier

In her role as Elsevier Foundation treasurer, Maria Markova supports the funding of non-profit organizations around the world. Maria is a Finance Manager in Group Financial Planning and Analysis team at Elsevier, focusing on Health side of business. She previously worked as a Business Controller for Corporate Functions at Elsevier and as a Senior Associate at PwC. Maria acquired her Master of Business Administration (MBA) degree at Oxford University and is a Chartered Management Accountant.



Kenneth R. Thomson II Legal Council RELX

Kenneth R. Thompson II was appointed as RELX Group General Counsel on October 1, 2011. In his role, he has global responsibility for the intellectual property, privacy, governance, compliance and securities law functions for RELX Group. Prior to serving in this capacity, Mr. Thompson served as the Executive Vice President and Global Chief Legal Officer for LexisNexis, an operating division of RELX Group.

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In the cover picture:

Dr. Pierre Togo Adégné and Dr. Oumar Sangho, editors of the Mali Medical Journal, attending a workshop at the Elsevier office in Paris, October 2018.