

THE ELSEVIER FOUNDATION

Annual Report 2021



2021 Member Innovation
Chemistry for Climate
Action Challenge
Winner
Hany Phant

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President of the Elsevier Foundation

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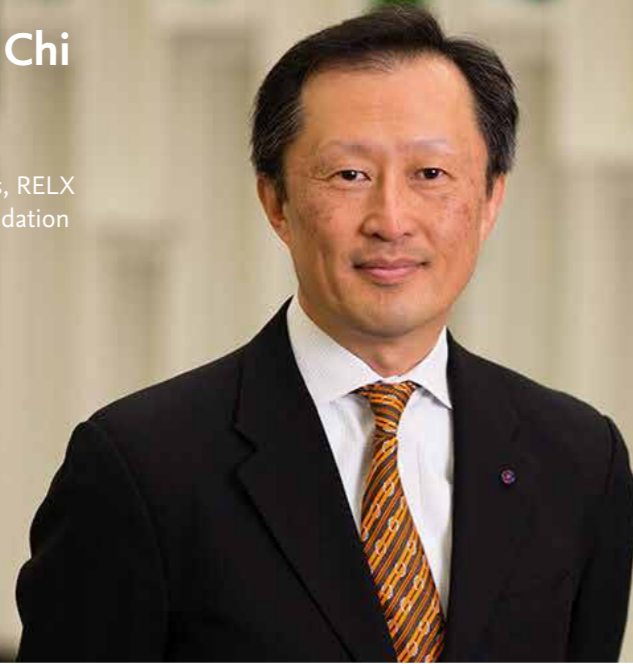
X. Board and team biographies



We're committed to doing our part to advance the UN Sustainable Development Goals. Look for the icons throughout the report to understand how our partnerships support the SDGs.

Youngsuk “YS” Chi

Chairman, Elsevier
Director of Corporate Affairs, RELX
President, The Elsevier Foundation



“As the world begins to emerge from the pandemic, we have redoubled our commitment to inclusive health and research and sought to integrate more intersectionality, consolidate our SDG focus areas and grow new partnerships.”

Foreword

The world in which we live has been significantly marked by the pandemic, spurring astonishing scientific progress, accelerating technological capacity but also exacerbating health disparities and revealing inequities across the Global South and North. In response, the Elsevier Foundation has sought to address these trends, aligning our inclusive research and health portfolio even more closely with the UN Sustainable Development Goals (SDGs). Over the past two years, we have grown our partnerships in areas where we feel we have a strong role to play: Gender, Health, Reduced Inequalities and Climate Action and sought to identify a cross cutting, intersectional focus. Our investment in time, resources and dialogue has also helped us to leverage key content, data, analytics, channels and expertise from Elsevier, our core funder. Over the past year, we have evolved two core program areas: addressing the needs of underrepresented early career researchers and building our Climate Action program.

Supporting Climate Action

The Foundation plays an integral role in helping Elsevier meet social and environmental goals. In 2021, Elsevier was able to make real strides in addressing the climate emergency by committing to the internationally recognized Climate Pledge and announcing their commitment to becoming Net Zero by 2040, a decade before the Paris Climate Agreement Goal of 2050. Elsevier also established a Climate Advisory Board of research experts to help guide change, committing to clear targets to reduce carbon emissions and launching a new study, the [Clean Energy: Pathways to Net Zero Report](#). The Report revealed an explosion of research on SDG7: Affordable and Clean Energy and SDG13 Climate Action.

Using this evidence base, the Elsevier Foundation launched a series of new Climate Action partnerships in 2021. Together

with the World Academy of Sciences (TWAS), we established research grants for projects led by women scientists that address concrete problems in climate change through collaboration and interdisciplinary research. We also held the first Chemistry for Climate Action Challenge to support chemistry research that play a key role in facing climate change in developing countries. Within the Challenge, we recognized the pivotal role that women can play in adapting to climate change and policymaking, underscoring our commitment intersectionality to sex and gender integration in SDG research. Finally, we worked closely with the Organization for Women in Science for the Developing World (OWSD) to refocus the awards on SDG challenges and celebrated 6 talented women scientists working in Climate Action research in 2022.

Early Career Researcher Partnerships

We also evolved our partnerships in inclusive research. When launching the Elsevier Foundation some 15 years ago, we met with many research leaders about the need to support early career women scientists and address the loss of critical talent during family building years. Over a decade of grants, we explored many different interventions universities, professional associations and societies. However, we have found that this issue has only been exacerbated by the Covid pandemic. Elsevier’s [2020 Global Gender Report](#) tells us that the infamous “leaky pipeline” has not gone away. While the representation of women in research is increasing, substantial inequity remains in terms of output, citations, awarded grants and collaborations. And among active authors from 2014–2018, the lowest ratio of women to men was found in physics, computer science, mathematics, engineering and energy.

In addition, the US National Academies of Science 2021 report, [The impact of COVID-19 on the Careers of Women in Academic Sciences, Engineering, and Medicine](#) revealed that the disruptions caused by the pandemic endanger the engagement, experience and retention of women in academic STEM, and may roll back many of the gains made. It underscored that structural racism is an omnipresent stressor for women of color, who already feel isolated in many fields and disciplines. We learned that interventions to ensure equity for all women in STEM must take intersectionality into account.

Based on these findings and the guidance of our Board, we launched our new Early Career Researcher partnerships portfolio in 2022. By taking an integrated, intersectional and evidence-based approach to supporting the career progression of early career women scientists and researchers from underrepresented racial and ethnic groups, we hope to make a real contribution. Our 7 new partnerships are based in Japan, China, Singapore, Germany, the UK and the US, and address the specific challenges faced by early-career researchers in their regions with using localized approaches.

So as the world begins to emerge from the pandemic, we have redoubled our commitment to inclusive health and research, integrating a more intersectional approach and consolidating our SDG focus areas. As we have grown new partnerships, we have also continued to leverage our ability to convene stakeholders and tap Elsevier’s content, data, analytics and networks to bring stakeholders together and drive meaningful change.

12th April, 2022

Youngsuk “YS” Chi
President, The Elsevier Foundation

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, diversity, education, research and global health. Ex-Officio members are leaders within Elsevier and RELX who are deeply supportive of the Foundation's mission. The President of the Board, YoungSuk 'YS' Chi, presides over the Board meetings, which provides strategic guidance on program priorities, new partnerships, emerging issues and best practices as well as sound ethical, financial and legal governance.



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



Joyeeta Gupta
Full Professor
Environment &
Development
in the Global South
 University of Amsterdam



Nikunj Jinsi
(Former) Global
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Executive Vice
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Jan Herzoff
President
Health Markets
 Elsevier



Kevonne Holloway
Managing Director
Global Content
Partners
 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, Partnerships Director and Coordinator, as well as a Communications Director who also oversees Elsevier's corporate responsibility programs, and specially appointed treasurer, legal counsel and advisors. In addition to annual programmatic funding, Elsevier provides funding to cover the administrative costs of running the Foundation and in-kind support through office space, marketing, media outreach and volunteer support as needed from throughout the company.



Ylann Schemm
Director
 The Elsevier Foundation
 Elsevier



Domiziana Francescon
Partnerships Director
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Mevan Samarasinghe
VP and Technical Fellow
 Elsevier
 Elsevier Foundation Advisor

Ylann Schemm

Director,
The Elsevier Foundation



“For us, partnering is about engaging, brainstorming and co-creating together, making our partnerships as impactful as they can be.”

Our work

The [Elsevier Foundation](#) contributes over \$1.5 million a year to non-profit organizations through partnerships which incubate new approaches, highlight inequities and catalyze change toward the UN Sustainable Development Goals.

Funded by Elsevier, a global information analytics company specializing in science and health, the Elsevier Foundation is part of Elsevier’s [corporate responsibility program](#), and is able to leverage Elsevier’s funding, networks and unique insights in content, data, and analytics to expand its impact in gender, health, climate action and reduced inequalities.

Funded in 2005, the Elsevier Foundation has contributed over \$15 million in grants to support over 100 partners in 70 countries around the world, championing inclusive health and research.

From 2005-2015, the Elsevier Foundation awarded over 100 grants worth millions of dollars to non-profit organizations focusing on library training, education, infrastructure digitization, as well as nurse faculties, career skills and recognition, benchmarking studies and the advancement of early to mid-career women scholars.

In 2016, the Elsevier Foundation launched a series of new partnerships supporting innovations in inclusive health and research — more effectively aligning to the key science, health and technology challenges, as outlined in the [UN Sustainable Development Goals](#). The Elsevier Foundation also provides matching funds for donations to charitable organizations employees personally support to encourage their generosity and community involvement.

On a day to day basis, the Elsevier Foundation is run by a small [core team](#), and its governed by its [Board](#) of external and Ex-Officio members.

Our programs

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

The projects we support are strongly intersectional. In 2020, we simplified our program structure to highlight our commitment to supporting underserved communities around the world for better health outcomes and a more sustainable research ecosystem.

Inclusive Health

Information technology can significantly advance the delivery of healthcare for vulnerable populations. Our partnerships support organizations working to improve health outcomes in underserved communities around the world through the innovative use of health information.



Inclusive Research

The future of science requires a robust and diverse workforce drawn from all corners of society. Our programs advance women in science, encourage underserved youth to choose STEM careers, and widen access to academic knowledge for scientists in developing countries.



Employee Giving

To encourage community involvement and maximize the impact of charitable giving, the Elsevier Foundation contributes to global disaster relief efforts and provides matching funds to eligible charities supported by Elsevier employees.



II. Our 2021 partnerships

Inclusive health



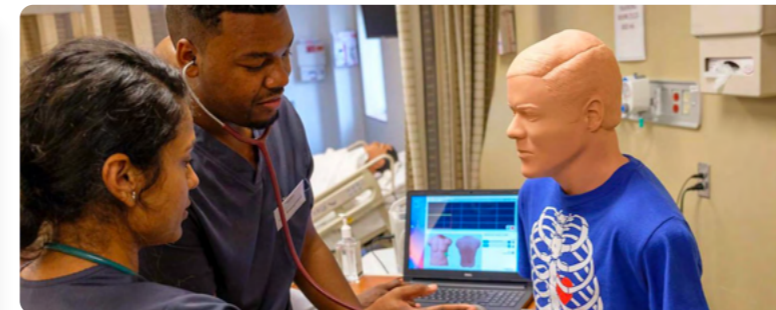
Amref Health Africa
Leap mLearning

Rollout of an mLearning app for community health workers, to promote Covid prevention and treatment modules in Ethiopia.



Amref Health Africa
Leap data analytics project

Improve the effectiveness of community health worker training by leveraging the power of data.



National League for Nursing
NLN/Elsevier Innovation in Technology
Excellence Program

A new faculty coaching course for nurse educators within 5 HBCUs Schools of Nursing supported by state of the art technology and pedagogical techniques.



Historically Black Colleges and Universities
Schools of Nursing Scholarship Fund

Scholarships fund to provide additional support for the nurses of tomorrow.



MSF/Epicentre
Niger Research Center

Support the capacity and visibility of this critical West African research center to deliver better emergency care in the region.



Julius L. Chambers Biomedical &
Biotechnology Research Institute
Implementation Science Program

Build research capacity and increase the rapid adoption of evidence-based interventions to address health disparities in diverse communities.



Sansum Diabetes Research Institute
Latino Diabetes Community Scientists

Reduce healthcare barriers and disparities for the Latino community at risk of type 2 diabetes.



Black Women's Health Alliance
Millennial Sister Circle

Improve healthcare outcomes and reduce health disparities for young African American women through prevention and empowerment.



Amref Health Africa

Leap mLearning

Location: Ethiopia
 Target group: Health extension workers and their communities
 Budget: \$40,000 a year (2020-2021).



Primary outcome

Drive lasting health change for communities in Sub-Saharan Africa by offering affordable, high quality education and training enabled by digital learning solutions for health workers.

Overview

Leap is Amref Health Africa’s mobile learning solution for training health care workers. It uses a mobile learning approach to train and empower health workers to use their mobile devices. This enables them to learn at their own pace while in the community, addressing both the interpersonal and community aspects of learning.

Ethiopia’s healthcare challenges. Despite the efforts made in the past two decades to increase the number and skills of health work forces, Ethiopia still has a very low health workforce density, specifically medical doctors, health officers, nurses and midwives. Health extension workers (HEWs), the frontline health workers that provide primary care in Ethiopia, can fill a significant part of this gap. For this reason, the Ethiopian Ministry of Health is working to upgrade and increase the number of HEWs in remote areas and to streamline their education and practice. As part of the Ethiopian government’s comprehensive COVID-19 approach, Amref has been commissioned to [roll out Leap to train health workers](#).

Amref’s solution: train community health workers through mobile learning. Traditional face-to-face learning practices will not be sufficient to train health extension workers at the pace and scale required to fill the health workers gap in Ethiopia. By deploying Leap, Amref can rapidly scale up the training of health workers. More than 90% of Ethiopia’s geographic area has access to mobile service which offers tremendous opportunities in efficient health training delivery.

Goals

- Train and empower HEWs to learn at their own pace and with their own mobile devices while in the community, providing for both the interpersonal and community aspects of learning.
- Enhance the quality of digitized learning content available to HEWs.
- Build the digital skills of key stakeholders at the institutional level to support decision making on digital learning initiatives.

Milestones

In 2021, Amref successfully trained **25,600+** Ethiopian health workers on COVID-19 prevention and treatment through their mobile phones, enabling them to educate the population about preventative measures. This success showed the tremendous potential of reaching health workers on their mobile phones and revealed key challenges to scaling digital learning. To better understand how Amref could reach more health workers, Amref conducted in-depth market research and developed their Digital Learning Strategy 2022-2026. The four pillars include:

- Building the digital skills capacity of educators and learners in health education system to benefit from digital learning.
- Promoting the improvement and utilization of the digital learning infrastructure.
- Selecting, adapting, customizing and developing digital learning technology platforms.
- Digitizing the learning content and delivery.

Level of evidence

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

A custom dashboard is expected to be integrated within the Ethiopian Ministry of Health’s information system. For the training of educators and health workers Amref utilizes Level 2, testing of their knowledge related to essential services and/or COVID-19.

Challenges

Challenges for scaling digital learning in Ethiopia relate to the currently available infrastructure, including poor digital literacy, unreliable ICT, ongoing conflict and limited resource availability.

While youth and health workers of the future increasingly demand digital solutions, decision makers and educators may be reluctant to adopt digital learning at scale. The costs of digital learning and inequitable access to education present further challenges.

Future plans

This project is a first step to scale digital learning in Ethiopia and an opportunity for Amref to roll out its new Digital Learning strategy. This will require the availability of appropriately skilled professionals, clear structure, proper information management systems, sound governance and management, a sustainable financing mechanism and a marketing approach.

Amref also plans to establish a consortium to scale up digital learning in Ethiopia, working closely with the Ministries of Education and Health, donors, industry and NGOs, to encourage all sectors to endorse a common strategic plan to embed digital technologies into the existing education and training system.

“I loved doing the mobile learning. I was the top performer maybe six or seven times, can you imagine? Some of the other CHVs are a lot younger than me. But I beat them almost every time! Why? Because I’m interested! I like to learn anything that helps me help people.”

— AMINA, Community Health Volunteer, Kilifi, Kenya





Amref Health Africa

Leap data analytics project

Location: Kenya

Target group: Community health workers in Africa

Budget: in kind.



Primary outcome

Improving the effectiveness of community health worker training by leveraging the power of data harnessed through Amref's Leap mlearning platform.

Background

Only 48% or 615 million people in Africa receive the healthcare services they need. While health outcomes in Africa are slowly improving, they remain low: the continent has 17% of the world's population, but accounts for 23% of the global burden of disease.

Sub-Saharan Africa is also facing a chronic lack of well-trained front line health workers who can play a pivotal role by reducing the impact of diseases such as COVID-19. Social distancing measures further limit the ability to deliver and scale traditional face-to-face learning methods. For vulnerable and under served populations in low- and middle-income countries, Community health workers (CHWs) are often women and offer the first point of care.

Amref's mobile or mlearning solution Leap, aimed at equipping CHWs with essential skills, can address this challenge. Leap operates in 9 sub-Saharan countries including Kenya where it has been operational for over five years, training over 70,000 community health workers across the nation.

Description

As a major, African-driven health NGO, Amref is well-positioned to develop data analytics services. It operates between local communities and healthcare systems and develops proprietary tools (such as Leap) that facilitate data gathering and treatment.

In 2021, Elsevier has provided technical expertise and coaching through skills-based volunteering. The collaboration, led by Elsevier Foundation's Health Advisor Mev Samarasinghe, VP and Technical Fellow at Elsevier, assessed the feasibility of using Leap data to determine the retrospective and predictive analytics of learner behavior. A team of Elsevier and Amref data scientists reviewed detailed learner behavior captured from sample learners. For each learner, multiple spreadsheets were analyzed comprising quiz data, job aids, SMS communications, and more. By providing guidance on how to develop an efficient 'data first' mindset, the project represents a necessary step for Amref to be able to scale up Leap in different countries.

Goals

- Determine the efficacy of data collection systems to improve Leap programming and deployment
- Conduct a data audit of a comprehensive learner data set to understand the quality and availability of data, and whether it can be used to answer key questions (Q2-3 2021)
- Develop data visualization & analyst skills: (Q1-3 2022)

Milestones

- Elsevier's data science team contributed to:
 - Conduct a feasibility analysis of Leap mLearning data
 - For each of Amref's business objective, identify the data coverage and any gaps to meet the objective
 - Recommend concrete next steps in how to use data to draw the conclusions and meet the objectives
 - Conduct a technical training session for the Amref technology and product team
- Amref engaged a key county government within Kenya to leverage the insights from the dashboard in their decision making processes.

Challenges

- Engineering and deploying an efficient data model in a production environment that enables continuous data input and output represents a significant challenge.
- Accessing data has often proven challenging given restrictions from a third-party Amref vendor due to Personally Identifiable Information (PII) that needs to be handled with care.

Level of evidence

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

Additional partners

Verdonck, Klooster & Associates performed a parallel data analytics exploratory project on Leap data related to COVID-19 training for community health workers, further increasing Amref's understanding of the possibilities inherent in the data.

Future Plans:

This project is anchored on the Leap mlearning platform. Once Amref has refined its data analytics approach in Kenya, it will be expanded to the 8 other sub-Saharan countries which currently use Leap.

In 2022, the Elsevier Foundation and Amref teams will explore an additional collaboration with DataKind, an organization which helps non-profits to evolve their use of data to advance the UN SDGs. Ultimately, our goal is to help Amref to advance a more sustainable, data-driven approach to the healthcare and training they provide across Africa.

In addition to Leap, Amref also deploys other digital platforms including M-Jali, which is used to gather and leverage data at the household level. Currently, there are parallel data analytics projects underway with M-Jali. Amref hopes to integrate these different projects to create one integrated view of community health workers and their communities.





MSF/Epicentre Niger Research Center

Location: Niger

Target group: Epicentre Niger staff, local communities, health researchers and policymakers in West Africa.

Budget: \$100,000 a year (2016-2022).



Primary outcome

Building the capacity of Epicentre Niger’s medical and scientific staff, reinforcing Epicentre’s ties to the local authorities to guarantee an effective and rapid response to health crises.

Overview

In Niger, infectious diseases and child malnutrition are the principle causes of mortality. In 2009 Epicentre, MSF’s research and training arm, established its third research center in Niger, adding to existing ones in Paris and Uganda. Their goal was to create a West African hub to develop implementable solutions to clinical and public health issues. Since then, the Niger Research Center has developed a strong research portfolio and built capacity to investigate epidemics, conduct clinical trials and prevalence surveys and implement alerting and monitoring systems while working closely with the Niger Ministry of Health. However, Niger and the Sahel remain one of the least developed regions in the world with poor academic, research and health infrastructure.

Our partnership supports the visibility and policymaking engagement of the [Niger Hub](#) within the West African health community as well as the training of Epicentre Niger’s staff. Key scientific staff such as field investigators, lab technicians, epidemiologists and clinical statisticians have received advanced individual and institutional training in technical areas and have been able to present at Epicentre’s Scientific and Medical Days, attend courses and conferences, build international networks and take up other training assignments in MSF programs and African research centers.

Goals

- Provide opportunities outside of Niger for medical and scientific staff to receive additional training to further their careers.
- Provide opportunities for staff to promote visibility and encourage discussion on the most pressing issues in medical research.
- Encourage staff from Niger and surrounding countries to be mentored and mentor others to sustain a vibrant research culture in West Africa.

Milestones

- Through seed funding from the Elsevier Foundation, Epicentre was awarded a joint 2021 grant for \$1.9million from the African Academy of Sciences for professional development in Niger as part of a consortium with KEMRI, Oxford, LSHTM, University of Glasgow, and the Center for Infectious Disease in Zambia.
- With mentoring and support from the Organization for Women in Science for the Developing World (OWSD) and Epicentre, both longstanding Elsevier Foundation partners, the first chapter of OWSD was launched in Niger.
- Group trainings and certifications were provided in research conduct and ethics to Epicentre staff members.
- 3 staff members participated in English language training for medical and scientific personnel and have since been able to take on additional responsibilities with international, anglophone partners, including presentations at study consortium meetings.
- Launched a monthly seminar series to provide additional opportunities for capacity building on topics such as: financial management, international research financing landscape, the role of CROs, different ethical standards, communications to non-scientific audiences and more.
- Epicentre staff members presented at the Centre de Recherche Médicale et Sanitaire Scientific Day (Niamey, November 2021) & Epicentre Scientific Day (June 2021).
- 3 staff member are in the final stages of acceptance for a PhD program in the US, a first for Epicentre Niger.

Challenges

- Despite the difficulties posed by Covid-19, the Epicentre team was able to rapidly adapt to virtual communications, resuming travel of key staff to Niger whenever possible. The pandemic has also accelerated staff’s technological literacy and ability to work in a virtual environment.
- The regions’ ongoing instability continues to put additional security pressure on staff, and underscores the need to rely on new virtual ways of working for the longer term to ensure consistent and adequate support to staff members.

Future plans

- Host further OWSD chapter activities in Niger in addition to concerted efforts to recruit and retain more female scientific staff at Epicentre.
- Work with the Epicentre Niger staff to complete the Research Fairness Initiative reporting framework, which aims to promote and validate responsible and fair practices in international collaborative research and innovation for health.
- Further capacity building opportunities for Epicentre staff.

Level of evidence

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

“This support has allowed me to finally devote time to learning and being comfortable in English, enabling me to be more confident with international partners. It has made a big difference in my ability to collaborate.” — OUSMANE GUINDO, General Manager, Epicentre Niger





Julius L. Chambers Biomedical & Biotechnology Research Institute

Implementation Science Program NC Central University

Location: North Carolina, US

Target group: researchers, underserved communities in North Carolina.

Budget: \$100,000 a year (2020-2022).



Related Goals

Primary outcome

Facilitate the rapid adoption of evidence-based interventions to address health disparities in minority and underserved communities.

Overview

According to the National Institutes of Health U.S. Library of Medicine, on average it takes 17 years for new evidence-based information to make its way into the routine practices of most clinicians. Patients with diseases that disproportionately affect minority populations may be even slower to benefit from new findings. This is exacerbated by the low numbers of underrepresented minorities in the scientific community, less than 8%.

North Carolina Central University's [Julius L. Chambers Biomedical Biotechnology Research Institute](#) (BBRI) conducts multidisciplinary and inter-institutional research focused on health issues that disproportionately affect minority and underserved populations. As part of a historically black college and university (HBCU), BBRI provides graduate students with research-intensive experience that enhances their access to careers in the biomedical sciences.

The Elsevier Foundation supports the Implementation Science Education and Training (ISET) program to combat health disparities and address important issues of reducing, and ultimately eliminating, health disparities as well as important issues of managing health outcomes in vulnerable communities. The ISET program supports new and early-stage investigators focused on health disparities research by providing training and mentoring in implementation science (IS), building capacity to submit successful IS-focused grants, addressing an IS gap among health disparity researchers, and developing a culture of IS across NCCU at all levels.

Goals

- Increase the number of health disparity researchers conducting implementation science research.
- Organize outreach and networking activities within the NCCU community.
- The Elsevier Foundation-funded projects funded for the 2022-2023 program year include:
 - Physical Activity Opportunities for African American Women” (PI: Amy Linder PhD, Department of Kinesiology and Karen Webb PhD, Department of Nursing)
 - “Racial Disparities and Social Workers in Primary Healthcare Settings” (PI: Charity Watkins PhD, Department of Social Work)

Milestones

Physical Activity Opportunities for African American Women:

- Investigate psychosocial determinants including structural racism which affect participation in physical activity interventions, with a specific focus on African American women.
- Implement and investigate the impact of technology-infused physical activity interventions in increasing participation and promoting overall health in Africa-American women at NCCU.
- Conducted the first cohort training in person in October 2021.

Racial Disparities and Social Workers in Primary Healthcare Settings:

- Determine whether the completion of the “Culturally and Linguistically Appropriate Services (CLAS) Improving Cultural Competency for Behavioral Health Professionals” training increases multicultural awareness, counseling relationships, knowledge, and skills among social work case managers as measured by the Multicultural Awareness Knowledge and Skills Survey.
- Explore the case managers’ perceptions of the CLAS training (i.e., preconceptions, what they learned, experiences with completing it, application to work).

Challenges

- In 2021, in person interactive training programs with IS experts and clinical site participation had to be postponed due to the pandemic.
- Researchers have been challenged to develop the appropriate language to address minority populations, especially when related to negative data/outcomes and how they are reported.
- Faculty continue to have competing priorities with teaching a full course load and finding enough time to conduct research that advances scholarship and contributes to vibrancy of researcher collaboration.

Future plans

- Develop IS modules to incorporate into academic curricula
- Award additional pilot project funding.
- Organize networking activities within NCCU faculty, students and underserved communities.
- Initiate a BBRI-hosted journal club meeting for IS continuing education.
- Host a multi-institution IS seminar series, with potential opportunities from neighboring academic partners (Duke, UNC Center for AIDS Research, Research Triangle Institute).

Level of evidence

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

Main photo: Faculty of the Julius L. Chambers Biomedical & Biotechnology Research Institute with Director Dr. Deepak Kumar, at left. Below: BBRI's researcher Amy Linder, Elsevier Foundation Board Member Kevonne Holloway, Elsevier Foundation Director Ylann Schemm, Dr. Deepak Kumar, BBRI's researcher Charity Watkins (l. to r., left photo); Ylann Schemm and Dr. Johnson O. Akinleye, Chancellor of NCCU (right photo).





National League for Nursing NLN/Elsevier Innovation in Technology Excellence program



Related Goals

Location: US (Alabama, North Carolina, Virginia)

Budget: \$60,000 (2020), \$100,000 a year (2021-2022).

Target group: Nursing Faculty teaching in 5 Historically Black Colleges and Universities:

- Hampton University
- North Carolina Agricultural and Technical State University
- Tuskegee University
- Winston-Salem State University
- North Carolina Central University

Primary outcome

Use innovations in simulation and technology to drive teaching excellence in HBCUs; developing online products to both enhance faculty skills and expertise, meet the needs of learners and promote student's critical thinking skills.

Overview

While many nurse educators are experts in the art and science of nursing, they may not always be experts in teaching and learning. Engaging students in contextual learning using technology and dialogue shifts the focus from learners as doers of actions to learners as meaning makers. Innovation in technology and teaching are increasingly becoming an essential tool for nurse educators in preparing students to provide safe and quality care in diverse healthcare settings.

This need is even greater in Historically Black Colleges and Universities (HBCUs) Schools of Nursing, where resources for faculty development are often limited and the students come from underrepresented populations. The [National League for Nursing's Coaching for Excellence in Nursing program](#) provides nursing faculty in HBCUs the opportunity to enhance their coaching skills and facilitate student learning through innovative technology. The course includes e-learning modules that provide context for understanding nursing students' challenges and how educators can help with the transition to professional practice.

Goals

- Enhance faculty expertise with active teaching and learning strategies to meet students' needs, understand challenges and promote reflective learning.
- Develop faculty expertise to enhance the teacher/learner relationship to provide effective feedback to students through online learning environment.

Milestones

The Coaching for Excellence Course provided a five-hour online course with the goal of developing critical dialogue techniques to enhance students' thinking:

- **10** nursing faculty from 5 HBCUs enrolled in the NLN Coaching for Excellence course. Performance score increased from an average score of 9 to 11 out of 12.
- **95%** of faculty agreed that the modules enhanced their skills to give effective feedback, better understand adult learning theories and styles, and appreciate the unique attributes of learners and how these shape their learning.
- **95%** of faculty agreed that the course provided new ideas and assisted in making gradual change in the teaching learning process and helped them make improvements in teaching and learning that are beyond the status quo.

In addition, faculty attended a two-hour live synchronous interactive webinar expanding on their dialogue techniques to incorporate specific neuroscience teaching strategies that would help to also engage learner dialogue and reasoning.

Main photo: Hampton University School of Nursing students and educator using simulation technologies. Below: Winston-Salem State University nursing faculty teaching (left), and a maternal newborn class (right).

Challenges

- Providing faculty development using technology was a challenge, as many faculties are still not familiar with the use of technology in teaching and learning.
- The COVID-19 pandemic continued to create challenges for the project. In response, NLN staff modified the timeline for faculty to complete the course.

Challenges

- NLN will expand the project throughout 2022 to engage past cohorts into a community of nursing education practice. NLN has surveyed faculty on development needs: results showed that opportunities for collaboration, networking and mentoring was high on their list of needs. Communities of practice not only help to strengthen processes of enhancing knowledge but facilitate interaction with one another as faculty colleagues.
- NLN will provide 3 Teaching Thinking Next Gen Learning interactive webinars to immerse faculty members in neuroscience skill building and provide a platform for dialogue and faculty development.

Level of evidence

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

At the end of the Fall 2021 semester, faculty enrolling in the course and their learners were surveyed on their perceptions on educational best practices using the NLN Educational Best Practices Questionnaire Curriculum (EPQ-C), including: faculty and student interaction, collaborative learning, active learning, feedback, time on task, high expectations, and diverse learning. This showed a difference in faculty vs students' perception of the learning environment as a space that promotes active participation and challenges thinking and abilities.





Historically Black Colleges and Universities Schools of Nursing Scholarship Fund

Location: US (Alabama, North Carolina, Virginia)

Budget: \$50,000 a year (2020-2022).

Target group: Nursing students in 5 Historically Black Colleges and Universities.



Overview

For many Black students, choosing a nursing school in an HBCUs provides substantial encouragement and support to thrive in their careers while focusing research and outreach on the needs of minorities. Building off of the National League of Nursing/Elsevier HBCU Excellence in Technology Innovation program, the scholarship fund provides each of the five participating HBCU Schools of Nursing with a \$10,000 scholarship fund to provide additional support for the nurses of tomorrow.

Hampton University School of Nursing

- 4 beneficiaries
- The candidate was selected by the Dean of the School of Nursing based on the minimum grade point average requirement of 2.75 and has a demonstrated financial need.

COVID-19 has brought many unforeseen consequences, including students not returning, difficulty obtaining clinical hours, and increasing the shortages of qualified faculty who had to take on new responsibilities to help with pandemic relief. The move to remote learning was intense: many faculty had to quickly develop new technological skills and pedagogical methods. Clinical sights became non-existent, and faculty had to learn how to teach skills and other needed competencies in a virtual environment. Hampton University now asks students to practice clinical skills on their relatives, where possible. This difficult task led to stress, anxiety, and increased frustration for the students.

North Carolina Central University School of Nursing

- 10 beneficiaries: 8 female, 2 male students
- Each student received \$1,000

Beneficiaries were chosen based on financial need and participation in service activities. The nursing program quickly transitioned to remote learning during the Spring 2020, and faculty members and students were given laptops. NC Central University has an office of professional development and a distance education department that offered classes for online instruction, ensuring student success. Students and faculty members faced additional challenges such as taking care of family members and loss of income.

During the Spring 2020 there was an increased use of simulation technologies for junior students, while senior students were able to complete the majority of their clinical rotations. Faculty members developed the first COVID-19 screening survey to allow maternity students the opportunity to complete on campus simulations. Students were able to graduate on time and with needed clinical experience.

“The impact of this partnership allowed students to focus their attention on nursing course.” — Faculty member

Tuskegee University School of Nursing and Allied Health

- 4 beneficiaries: female students, age 22-26.
- Each student received \$2,500

Scholarships awards were based on the identified need for assistance from the Office of Financial Aid and were awarded during the Professional Phase of the Nursing Program. The students who received the awards had exhausted existing resources available to them. The transition from face to face to virtual instruction required substantial innovation for the University and the students. Some of the students didn't have the necessary technology or space to create a quiet environment conducive for teaching and learning.

One of the challenges faced was trying to ensure that the quality of education was not compromised. There was a need for review and remediation sessions before and after presentation of concepts and testing. Increased office hours were a necessity as many students needed time to "talk about" what was happening in their lives.

“I am a first-generation college student, and my family has no idea how hard this process can be.” — Nursing student

Main photo: North Carolina Central University School of Nursing students use clinical technologies to guide their practice.

North Carolina A&T University School of Nursing

- 10 beneficiaries: freshmen and sophomore pre-nursing students, all female, 60% out of state
- Each student received \$1,000

Beneficiaries were chosen based on financial and/or specific needs. The impact of COVID-19 on both students and faculty was quite high. Specifically, the mental health of students, faculty, and staff suffered from increased uncertainty and stress, and lack of social interaction. The sudden elimination of clinical spaces also played a key role, as did faculty turnover and burnout. However, the School of Nursing also saw a positive increase in students and faculty being able to confidently use virtual simulation and other clinical technologies.

“I was able to use the funds for acquiring calculators, lab coats, goggles, and other essential school supplies.” — Nursing student

Winston-Salem State University Nursing Program

- 10 beneficiaries, female students, age 21-36.
- Each student received \$1,000

Due to the pandemic, clinical and practical experiences for nursing students were immediately halted in March 2020, limiting rotations for all students. The Nursing School immediately pivoted from traditional teaching methodologies to an on-line platform creating which created significant challenges for both faculty and students e.g., access and the need to adapt to online teaching and learning. Faculty engaged in development opportunities to build their online pedagogical skills and enhance their ability to provide effective coaching to their peers and the learners.

Unsurprisingly, the School of Nursing found it challenging to shift rapidly from traditional teaching modalities to an online environment. Accreditation options for the ANE (Advanced Nurse Educator) and RN-to-BSN (registered nurses acquiring a bachelor of science in nursing) pathways were instrumental in providing support to faculty teaching online for the first time.

“Faculty found the coaching program was effective, efficient, and provided valuable tools as they coached and counselled students, particularly during the time of national change brought on by the COVID pandemic.” — Faculty member



Sansum Diabetes Research Institute

Latino Diabetes Community Scientists

Location: US (California)

Target group: Hispanic/Latino families

Budget: \$100,000 a year (2020-2022).



Primary outcome

Reduce the disproportionate burden of diabetes affecting Hispanic/Latino communities in the United States through research, education and care, including use of digital health technologies and the creation of *Especialistas*, a community health champion role.

Overview

U.S. Hispanics/Latinos bear a disproportionate burden of type 2 diabetes (T2D). Social and environmental factors (access to care, low rates of research participation and low health literacy) account for 90% of the risk for T2D progression. The aim of the [Sansum Diabetes Research Institute](#) (SDRI) is to develop community rapport to strengthen the health literacy and research expertise of *Especialistas* or Community Scientists, and create an evidence-based technology-diversity-health nexus.

Community Scientists. Hispanic/Latino adults make up almost 40% of California’s population, but only 8% of nurses and 5% of doctors. *Especialistas* are drawn from the local population and take lead roles in (a) establishing and maintaining community trust; (b) participant recruitment and retention; (c) removing barriers to participation in research and development; (d) increasing self-efficacy; and (e) providing cultural oversight to the creation of supporting materials.

Mil Familias. The Mil Familias study enrolls 400 individuals living with T2D. The primary objective of this study is to determine how genetic, biological, psychological, behavioral, and social environmental influences impact the progression of T2D and associated cardiovascular complications over time. This includes the use of wearable technologies to measure health outcomes.

Accessible research findings. Hispanics/Latinos have less access to published research findings: even “publicly available” diabetes information is not written at an appropriate health literacy level in English, let alone Spanish. To democratize research findings, SDRI selects the most relevant recent articles on clinical trial results and health guidelines on Diabetes and Covid, summarizes the research, replacing medical and technical jargon with accessible English and Spanish to mitigate the health literacy and numeracy barriers.

Milestones

- In 2021, **145+** families and +200 individuals recruited into Mil Familias and **100+** participants into the Farming for Life program.
- Launch of Veggie IQ to create the first-ever “Youth Scientists” program. Youth Scientists are predominantly Mexican-American high school students participating in an after-school program that uses science and digital health to highlight the links between real food and physical and mental well-being to address health inequalities affecting their community. In December 2021, **15** students graduated.
- Completion of assessment project of the feasibility and acceptability of offering wearable digital health technologies to Hispanic/Latino adults at-risk of or living with diabetes. The study has been completed, and data are currently being analyzed, to be published in 2022.
- Begun offering free HbA1c testing and diabetes education: **100+** individuals have already been screened.
- Vaccination program established in early 2021 for Covid-19 at-risk adults, **200+** doses administered.
- Continued to expand its website, publishing +800 posts in English and Spanish, summarizing the latest research on diabetes and Covid.

Level of evidence

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

SDRI uses publication as a major metric of success. In 2021, 11 articles were published based on the 2021 SDRI-Elsevier Foundation partnerships.

Future plans

- Embed modules of Veggie IQ in K-12 classes at local schools and expand the after-school program for additional underserved Hispanic youth.
- Increase HbA1c screenings from 100 to 2000 in 2022 for underserved adults with poorly controlled type 2 diabetes.
- Launch the Elsevier Nexus for Health Equity, with the goal of achieving equity in healthcare via democratization of knowledge and access to evidence-based digital health technologies. The Nexus will further develop the concept of Community Scientists to support additional underserved communities. SDRI will collaborate with companies to expand access to and use of digital health technologies by underserved populations; support new training modules to be delivered by Community Scientists; create free digital resources and work with partners to help create novel technologies based on the prerequisite concepts of trust, access, and self-efficacy.
- SDRI advocates the need to scale up their programs considering the increased challenges faced by Hispanic/Latino adults living with diabetes in the Covid-19 pandemic context. To ensure that underserved communities are not excluded, they would like to expand the partnership to engage with companies involved in digital health, increase access to existing devices, and provide input during research and development phases of new technologies.

“For virtual health care, addressing trust, access, and self-efficacy will be catalysts for change, ensuring that every person with diabetes can attain their full health potential: the very definition of equity.”

— DAVID KERR, Director of Research and Innovation, SDRI. *The Lancet Diabetes & Endocrinology*, V. 9, I. 8, 2021, pp. 480-482.





Black Women's Health Alliance

Millennial Sister Circle

Location: US (Philadelphia)
 Target group: Black women 20-39 years of age
 Budget: \$25,000 a year (2020-2022).



Primary outcome

Improve healthcare outcomes and eliminate or reduce health disparities experienced by women of African Ancestry, other women of color, and their families through advocacy, education, research and support activities, programs and services.

Overview

The Philadelphia Black Women's Health Alliance was first established in 1983 by 100 Philadelphia women who attended the First National Conference on Black Women's Health Issues in Atlanta, GA. Its mission is critical: to improve health care outcomes and reduce health disparities for African American and other minority women and families through advocacy, education, research and support services. Health and racial disparities, as well as systemic inequalities, are stark: African American women are 60% more likely to have high blood pressure compared to non-Hispanic white women and 1.8 times more likely to have diabetes. They also are more likely to die from breast and cervical cancer, though not more likely to be diagnosed with it.

The [PBWHA's Millennial Sister Circle](#) (MSC) Initiative builds on the success of their earlier program, the Prime-Time Sister Circle, a which dramatically improved the health outcomes of more than 310 African American women, aged 40-75 years through a holistic approach to health and well-being and is being delivered in partnership with the Gaston & Porter Health Improvement Center and the Strategic Live Solutions Group. The MSC seeks to increase knowledge and improve attitudes and behaviors, empowering Millennial African American women to take charge of their health outcomes and reduce their emotional and physical health disparities earlier in their lives. The program aims to educate, equip, and encourage participants to own their health in the areas of stress management, mental and emotional health, substance use, financial wellness, and romantic relationships.

Goals

- Improved stress management, including relationships and systemic inequities.
- Improved acceptance of, and removed stigma associated with, mental health support and services.
- Improved financial management.
- Increased improvement in drug and alcohol management
- Increased awareness and improvement in nutrition, portion control and physical activity.
- Knowledge of blood pressure control and measurement.

Milestones

- 5 intervention virtual sessions have been conducted on the selected subjects (1 orientation, 4 content sessions).
- 16 Participants enrolled and 10 participants attended.
- 4-chapter curriculum and resource guides produced.
- Collection of clinical and psychosocial data.
- Distribution of MSC Wellness Boxes to participants.
- MSC App developed and provided.
- Meeting the analysis of the program evaluation data to better inform modifications needed for the 2022 offering of MSC.

Level of evidence

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

Pre- and post-surveys on knowledge, attitudes, skills, behaviors and beliefs for content areas: mental and emotional health, medical trust/distrust, general health, COVID-19 and social support. Clinical data analyzed at the group level and tracked from one series to the next.

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Challenges

- Multiple team members were infected with COVID during development, which impacted scheduling and collaboration. This was especially challenging in the virtual environment.
- As MSC's subject matter experts and nurses work in fields heavily impacted by COVID, they were less available than initially hoped. Because of this, the program team was only able to collect clinical data once rather than the initially planned pre and post data collection points.
- Lack of funds to adequately pay members of the MSC team resulted in high turnover: the team frequently needed to train and onboard new staff, which slowed down overall progress.
- BWAH was challenged with difficulty recruiting and hiring key staff to fill vacant and newly created positions. Reduced capacity resulted in adjusting program timelines and benchmarks.

Future plans

- Hold future MSC series, each including a minimum of 4 intervention sessions.
- Expand MSC to include the collection of more clinical data, offer blended and/or in-person attendance options, and collaborate with older and younger black women for a comprehensive, intergenerational impact.

"I am so very thankful for the opportunity to pilot the MSC Program. It provides a model that responds to the voices and needs of millennial Black women, as evidenced by evaluation and analysis of surveys of more than 300 millennial Black women and the results of two focus groups." — PARTICIPANT, First MSC cohort

Photo on the right: the MSC started recruiting in October 2021. Photo on the right: BWAH's Dr. Brenda Shelton Dunston (center) with Elsevier Foundation Board Member Kevonne Holloway (left) and Elsevier Foundation Director Ylann Schemm (right).



II. Our 2021 partnerships

Inclusive research



Medical Library Association
Librarians without Borders

Provide information literacy training to boost the use of peer reviewed resources by low income researchers.



Coach University of Oregon
Water First!

Expert workshops to build capacity, collaboration and networks to African women scientists working in water research.



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

Celebrating over 50 women across 22 low income countries for their talent and contributions to research.



The Elsevier Foundation Chemistry for Climate Action Challenge

Honoring innovative green and sustainable chemistry solutions which address climate change research.



Black Girls CODE
Philadelphia CODE Club

Deliver a culturally-sensitive and community-focused Coding Club for underserved girls of color.



Girls Inc. of NYC
Pre-G3: The Elsevier Foundation Data Analytics Preparatory Program

Targeted program to equip and empower underserved teen girls by teaching data analytics through a social justice lens.



The World Academy of Sciences
Women in climate action research

Support projects led by women scientists to address climate change issues through interdisciplinary research.



GenderInSITE
Women's participation in science academies

Benchmark study to map gender transformation in global science.



IMC Weekendschool
Amsterdam STEM program

Inspire pre-teens from underserved communities to explore STEM careers and pursue their goals.



Imperial College London
Maker Challenge

Helping talented teens from underserved communities to explore their ideas, creative design and new technologies.



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

Location: Low-income countries

Target group: Women scientists who have received their PhDs within the previous 10 years.

Budget: \$60,000 a year (2011, 2013-2018), \$80,000 a year (2019-2021).



Primary outcome

Increase the number and influence of women in 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 to the advancement of the Sustainable Development Goals (SDGs), identifying problems and finding solutions that others have not considered.

Overview

Women scientists in developing countries often experience isolation, lack of role models and visibility. For the past ten years, the Organization for Women in Science (OWSD) has collaborated with the Elsevier Foundation to address these issues through an [awards and recognition program for talented early career women scientists](#) from Africa, the Arab region, Asia and the Pacific region and Latin America and the Caribbean.

Each winner receives a cash prize of USD 5,000 and is sponsored to attend the annual meeting of the American Association for the Advancement of Science (AAAS), held each year in February. The winners are presented with their awards at a special AAAS networking ceremony, and have the opportunity to attend workshops and sessions, meet experts in their fields, visit local laboratories and institutions, and attend a celebratory networking dinner organized by the Elsevier Foundation.

In 2021, the awards were re-focused to align more closely with the United Nations SDGs. The awards' annual focus was shifted from specific scientific disciplines to broader SDG topics and research areas. The 2022-2026 awards cycle is focused on: 2022: Climate action and the environment (SDG13, 14, 15) 2023: Food Security, agricultural productivity and sustainable food production (SDG2), 2024: Water, sanitation and hygiene (SDG6), 2025: Inclusive Health (SDG3), 2026: Sustainable, affordable and reliable energy (SDG7).

Goals

- Recognize the achievements of outstanding women scientists in developing countries, increasing their visibility and helping to advance their careers.
- Inspire and support future generations of women scientists, who often struggle in a research environment that is often indifferent and even hostile to their needs and expertise.

Milestones

- Since 2013, **51** talented women scientists from **24** countries have won the awards. In 2022, **6** researchers were awarded as, one reviewer noted: "This year's selection was challenging because there were many outstanding candidates. In the end, the reviewers agreed that there was a tie between two candidates for the fifth award and that it should be shared between both of them."
- In February 2022, the winners presented their experience during a panel event and discussion hosted online at the AAAS meeting, moderated by the Elsevier Foundation Director.
- Since 2019, many winners received an additional travel grant to continue broadening their networks and amplifying the impact of the award by attending conferences and workshops.
- Since 2014, a supplementary cash award of \$2,500 per winner has been made by private donors, Dr. Gil Ommen, past AAAS President, and his partner, Martha Darling, to complement the funding from the Elsevier Foundation.
- The Selection Committee meeting for the 2022 Climate Action Awards was held online, which provided an opportunity to form a more diverse committee. Out of a total 26 reviewers, **25** were from developing countries and 16 were closely linked to OWSD including: past OWSD-Elsevier Foundation winners, Early Career alumnae and OWSD Executive Board members. Additionally, 2 Elsevier Climate Advisory Board Members also joined the Selection Committee to help identify the most impressive candidates.

Challenges

- In 2021, the fund for travel grants to awardees could not be used and were reserved to support the awardees in 2022.

Future plans

- Integrate the winners into the broader OWSD network of 6000+ members as mentors and advisors to support OWSD national chapter members, PhD and Early Career Fellows.
- Host two Award ceremonies during the virtual International Conference on Gender Action and Climate Change (hosted by OWSD and the Istanbul Aydın University, March 2022) and the EuroScience Open Forum in the Netherlands (July 2022).

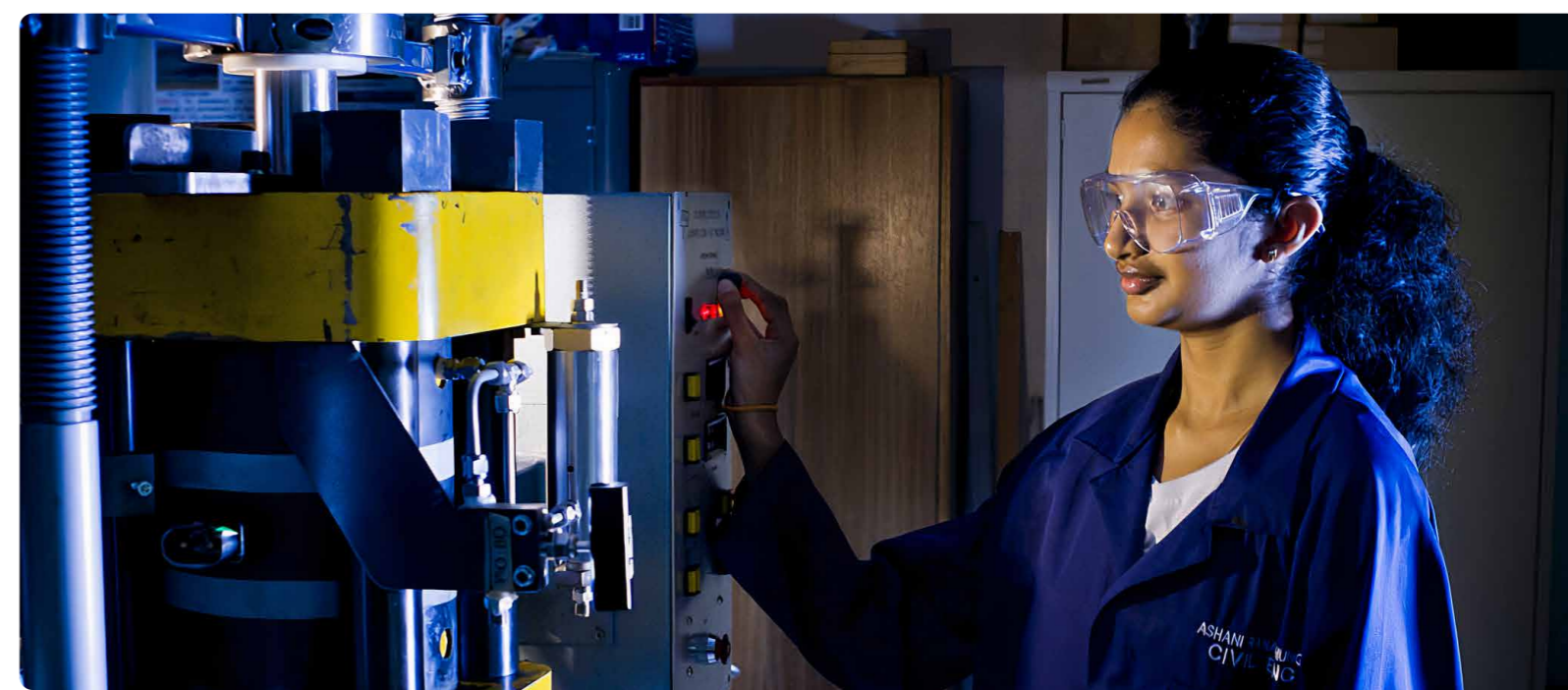
Level of evidence

1. Quasi-experimental
2. Pre-post or cross-sectional
3. Point-in-time study
4. Performance metrics/stats
5. **Anecdotal evidence**

Spotlight on: **2022 winners** — Climate Action

- **Abeer Ahmed Qaed Ahmed**, Yemen, in Microbiology and Environmental Science. For her work on solutions to pressing problems such as carbon emissions, drug-resistant pathogens and fossil fuel dependence.
- **Ashani Savinda Ranathunga**, Sri Lanka, in Geotechnical Engineering. For her work turning industrial & agricultural waste into soil for ground improvement & mine rehabilitation.
- **Gawsia Wahidunnessa Chowdhury**, Bangladesh, in Aquatic Ecology. For her work on conservation of aquatic ecosystems and threatened species.
- **Heyddy Calderon**, Nicaragua, in Hydrology. For her work to provide secure and sustainable water sources for vulnerable populations.
- **Flor de Mayo González Miranda**, Guatemala, in Environmental Engineering. For her work engineering better landslide prevention for vulnerable areas
- **Myriam Mujawamariya**, Rwanda, in Tropical forest ecology and Ecophysiology. For her research on the responses of native tree species in Rwanda to climate change.

Main photo: Dr. Myriam Mujawamariya explaining photosynthesis measurements to students. Below: Ashani Ranathunga in her lab. Both are part of the 2022 Award winners cohort.





The Elsevier Foundation Chemistry for Climate Action Challenge

Location: Global, applications focus on challenges in developing countries.

Target group: Researchers

Budget: \$55,000 a year (2018-2020), \$28,000 a year (2021-2023).



Primary outcome

The Challenge awards projects that use green and sustainable chemistry solutions to tackle some of the developing world's greatest challenges identified by the UN Sustainable Development Goals.

Overview

Climate change is the most important challenge affecting the future of our planet as underscored by the latest Intergovernmental Panel on Climate Change (IPCC) reports. The need for sustainable ideas to tackle global issues is now more pressing than ever, and chemistry can play a key role in finding practical solutions to urgent challenges and advance the achievement of the UN Sustainable Development Goals agenda.

After 5 successful editions of the Elsevier Foundation Green & Sustainable Chemistry Challenge, and thousands of proposals from around the world, the Challenge was relaunched with a new focus on Climate Action (SDG 13). Jointly run with Elsevier Chemistry journals, the [Chemistry for Climate Action Challenge](#) aims to raise awareness and build networks around how chemistry can help us make crucial progress towards the UN SDGs. The Challenge invites applicants from around the world to submit ideas for chemistry solutions to address sustainability challenges— energy, water, waste reduction, recyclability, chemistry, agriculture, medicine and more in low-income countries.

In addition to SDG13 Climate Action, the Challenge also supports SDG5 Gender Equality, recognizing the pivotal role that women play in combating climate change. Projects submitted to the Challenge must integrate a gender dimension (such as addressing the role of women in adapting to climate shifts and participating in policymaking and leadership roles) into their projects. The winning projects will receive a prize of €25,000 each.

Goals

- Highlight innovative green chemistry projects that address issues in developing countries with a strong emphasis on climate resilience.
- Encourage sustainability science, international collaboration, and scientific exchange in developing countries.
- Create visibility for an emerging field in the chemistry world.
- Support the integration of sex and gender dimensions in chemistry research.

Milestones

- In 2021, a total of **106** proposals were received from **48** countries.
- The top 5 finalists pitched their projects at the virtual Elsevier Green & Sustainable Chemistry Conference in November 2021.

Spotlight on: 2022 winners

The 2021 winners demonstrated how green and sustainable chemistry offers tangible ways to support Climate Action (SDG13) in their local communities.

- **Brenya Isaac**, from Ghana received €25,000 for his project “Biodegradable building and packaging materials made from coconut waste” which supports the manufacturing of biodegradable building materials from coconut waste, helping to reduce CO2 footprint and deforestation in Ghana while supporting local communities.
- **Dr Hong Pham and Dr Dinh Van Khuong**, from Vietnam also received €25,000 for their project “Producing Nano filter and bio-degradable plastics from rice straws” which found a practical use for another form of organic waste that has caused serious pollution in Southeast Asia, i.e., rice straws.

Level of evidence

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

Future plans

The 2022 edition of the Challenge was launched in March 2022 and prizes will be awarded during the 2022 Elsevier SDG Inspiration Day in October 2022.

“What I cherish about chemistry is how it makes it easier to solve complex contemporary and future problems. As a researcher, I love to come up with alternative solutions that solve pertinent problems for people and society.” — BRENYA ISAAC, 2021 Winner, Ghana

“Involving women in sustainable development activities is very important because it will empower [...] and transform the idea of *leaving no one behind* into a reality. Integrating sex and gender dimensions in sustainability research will foster women participating in leadership and decision-making, or involving them in income-generating activities which would protect them from violence, poverty and sexual harrasment.” — HONG PHAM, 2021 Winner, Vietnam

Main photo: Dr. Hong Pham, 2021 Chemistry for Climate Action Challenge winner. Below: Brenya Isaac (left) and Dr. Dinh Ban Khuong, Chemistry for Climate Action Challenge winners.





TWAS

Women in climate action research

Location: Low- and middle-income countries

Target group: Women researchers; communities where the projects take place

Budget: \$100,000 (2021-2023).



Primary outcome

Provide research grants for projects led by women scientists that address concrete problems in climate change through collaboration and interdisciplinary research.

Overview

Knowledge deriving from scientific research often suffers from not being applicable to real-life scenarios, especially in the Global South – slowing down tangible improvements. Greater progress in the livelihoods of individuals are achieved when research is done in cooperation with local populations, and when scientific know-how is effectively shared by those living in the same communities. UN Women reports that globally, one fourth of all economically active women are engaged in agriculture, where they regularly contend with climate consequences such as crop failure and experience an unequal burden of care for collecting increasingly scarce water and fuel.

Launched in 2021, the new TWAS partnership focuses on [women researchers working in climate action](#). It builds off of a 4 year partnership supporting the UN SDGs, the TWAS North South Collaboration in Sustainability (2015-2019) which included PhD travel grants, visiting professors, case studies competitions and a sustainability symposium at the TWAS General conference.

The new collaboration aims to empower women to lead concrete projects in climate action that take them outside the lab, deepening their scientific and soft skills such as project management and leadership. The program will award three grants to teams composed of 2–5 women researchers, technical experts or both. The team leaders will be invited to an initial in person or virtual training workshop. The project grant is designed to be flexible and modular, with a total value of USD 25,000 over the course of 3 years.

The new collaboration aims to empower women to lead concrete projects in climate action that take them outside the lab, deepening their scientific and soft skills such as project management and leadership. The program will award three grants to teams composed of 2–5 women researchers, technical experts or both. The team leaders from the three awarded groups will be invited to an initial in person or virtual training workshop. The project grant is designed to be flexible and modular, with a total value in the USD 25,000 over the course of 3 years.

Goals

- Promote gender equality by creating opportunities for women in climate action projects.
- Respond to and tackle communities' needs in line with the principles of sustainable development and focusing on the brunt of climatic changes.
- Effectively transfer knowledge from scientific research to real-life scenarios for practical and tangible change under the umbrella of the "climate action" SDG.

Milestones

In August 2021, TWAS began preparations for the key stages of the program including recruiting a dedicated TWAS program manager, developing guidelines, application forms, and webpages. The call for applications was jointly launched on February 19, 2022, with a particular focus on least developed countries and will close on May 19, 2022.

Level of evidence

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

Challenges

The major challenge experienced by the TWAS staff in 2021 was the need to start critical preparatory work without the benefit of a dedicated program manager.

Future plans

- Once the call for applications closes in May, the TWAS team will pre-screen and assign applications to reviewers who will then select the winners.
- TWAS will work with the Elsevier Foundation team to announce and amplify the awarded projects.
- When the project teams are in place, TWAS will design and conduct a skills-building workshop for the teams and support the set-up phase for the projects.
- The TWAS team will also design a tailored monitoring and evaluation framework to ensure that project goals are met and key lessons can be drawn from this critical climate work.

“The global climate emergency presents complex challenges that require an interdisciplinary approach, and it is paramount to build scientific knowledge for multifaceted, applied projects in the developing world. And because countries lagging in science and technology are more susceptible to disruptions from climate change, we are excited to implement this new program with a key focus on both women and climate action in the Global South.” — DR. ROMAIN MURENZI, Executive Director, TWAS





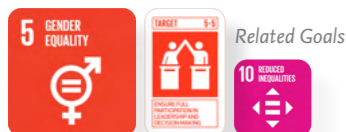
GenderInSITE

Women's participation in science academies

Location: 120 science academies worldwide

Target group: researchers and policymakers

Budget: \$20,000 a year (2016-2017); \$60,000 (2021).



Primary outcome

Survey 120 science organizations on women's participation: results allow for comparisons with a previous study undertaken in 2015, and provide important baseline information for much-needed gender transformation in global science.

Overview

Worldwide, women are poorly represented at decision-making and management levels in the Science, Innovation, Technology and Energy (SITE) sector. Applying a gender lens takes into account the vision, concerns and abilities of both women and men – and makes them more effective, often yield longer term solutions.

[GenderInSITE](#) is an international initiative which applies a gender lens to research for development. It promotes the role of women in SITE and increases the number of policies and programs globally that take gender into account. The Elsevier Foundation has partnered with GenderInSITE since 2011 and contributed to a series of education and innovation focused workshops. These have enabled policy makers to meet with scientists, researchers and other stakeholders to explore how best to apply a gender and science lens to specific SDGs in a local and regional context and to develop and disseminate the workshop recommendations to target key stakeholders.

GenderInSITE has explored additional funding streams when its core funding from SIDA ended in 2021. Steering Committee and review meetings concluded that GenderInSITE has established a significant brand and a regional presence that should be retained until new funding could be identified. In 2021, the Elsevier Foundation provided interim funding to enable GenderInSITE to finalize a special [IAP-ISC study on the participation of women in science academies](#) and identify new core funding. In addition, TWAS committed to supporting the part-time GenderInSITE secretariat in Trieste to ensure that website and social media activities were maintained.

Goals

- Seek core and project-based funding.
- Maintain the GenderInSITE brand through targeted communication activities & continued service on relevant committees.
- Complete current projects, e.g. GenderInSITE IAP-ISC study on women's participation in science academies.

Milestones

The study reporting on the inclusion and participation of women in over 120 science organizations was developed by GenderInSITE, in partnership with the InterAcademy Partnership (IAP), the International Science Council (ISC) and the Elsevier Foundation. It reports on the results of surveys conducted amongst science academies members of the IAP, as well as amongst international disciplinary unions and associations members of the ISC.

The survey results allow for comparisons with a 2015 study and provides important baseline information for much-needed gender transformation in global science. Key insights find that women are still under-represented:

- While women's elected membership in senior academies has increased from **13%** (2015) to **16%** (2020), there are still 19 academies that report **10%** or less female membership.
- Young academies are significantly more gender-balanced than their senior counterparts, with the average share of women's membership of respondents at **42%**.
- Representation of women members of academies is lowest in the engineering, **10%**, and mathematical sciences, **8%**.
- Almost two-thirds (**64%**) of ISC disciplinary unions and associations reported to have published findings to specifically address issues related to women or gender, but only a third (**34%**) have a strategy in place to increase women's participation in their activities. Even fewer (**16%**) reported having a budget to implement activities related to gender equality.

- The average share of women serving on governing bodies was **29%** for academies and **37%** for international disciplinary organizations.

The report makes several key recommendations:

- Establishing a coalition for gender equality in global science to ensure a transformative action agenda.
- Developing a central repository of gender-related policies and actions to identify best practices and guide those academies and disciplinary unions seeking to implement changes.
- Applying a regional lens to gain insights and to advance the gender equality agenda.
- Promoting women's leadership and service on governing bodies.

Future plans

Together, the IAP and ISC represent over 250 unique organizations globally, and cover science in its broadest sense, including the natural, engineering, medical, social sciences and the humanities. This collaboration supported by GenderInSITE represents a powerful, nascent coalition for gender equity in science working to build capacity and impact. While GenderInSITE was unable to identify immediate core funding, Dr. Roseanne Diab, the Director continues to explore options for embedding this important initiative in other organizations in 2022.

Level of evidence

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

DISCIPLINE-BASED ACTION

LOCAL CONSIDERATIONS

LEARN FROM YOUNG ACADEMIES

GENDER EQUALITY IN SCIENCE: INCLUSION AND PARTICIPATION OF WOMEN IN GLOBAL SCIENCE ORGANIZATIONS

SUPPORT

22% of the academies and 42% of the disciplinary unions and associations have a document or a policy of some kind that addresses sexual harassment in the workplace.

GENDER EQUALITY IN SCIENCE: INCLUSION AND PARTICIPATION OF WOMEN IN GLOBAL SCIENCE ORGANIZATIONS

REPRESENTATION

The average share of women's representation in senior academies is 16% — while the average share in young academies is 42%.

GENDER EQUALITY IN SCIENCE: INCLUSION AND PARTICIPATION OF WOMEN IN GLOBAL SCIENCE ORGANIZATIONS

FORM COALITIONS

INFORMATION SHARING

MONITOR & EVALUATE

GENDER EQUALITY IN SCIENCE: INCLUSION AND PARTICIPATION OF WOMEN IN GLOBAL SCIENCE ORGANIZATIONS



Medical Library Association

Librarians without Borders

Location: Low- and middle-income countries

Target group: Researchers, librarians, students and staff.

Budget: \$25,000 a year (2008-2016), \$45,000 a year (2016-2021).



Primary outcome

The MLA/Librarians without Borders® (LwB) project provides training to support the production of high-quality research in low- and middle-income countries through capacity development, fostering South-South and South-North research collaboration.

Overview

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 the launch of Research4Life (R4L), an umbrella program with 5 UN agency partner collections including Hinari. Today, Research4Life comprises 154,000 peer reviewed resources, 10,500 registered institutions and 200 publishing partners. Despite these gains in access, however, many researchers, doctors, librarians and policymakers in developing countries were still hampered by a lack of information literacy.

Over the past 15 years, [Librarians without Borders](#) has aimed to fill that gap with essential face-to-face, train-the-trainer workshops for the R4L community. Founded in 2007 by the Medical Library Association (MLA) and supported solely by the Elsevier Foundation, LwB has conducted a total of 100 workshops in forty-two countries and developed a decade worth of training modules. In 2016, an annual training grant scheme for librarians was developed resulting in a total of 25 training grants. The Elsevier Foundation funds are often leveraged with additional resources from UN agencies or participating institutions: the FAO Research4Life training MOOC, supported by the Elsevier Foundation in 2019, has further bolstered LwB's efforts to scale up virtual training during the pandemic. 2021 marked the Elsevier Foundation's 15th and final year of funding for this capacity building initiative.

Goals

- Support the training and promotion activities of the Research4Life programs to enhance the use of its resources.
- Increase the number of trainers based at R4L registered institutions whose activities will result in a cascading effect on users from their institutions.
- Build the R4L repository of learning and training with timely and relevant materials, a critical and ongoing activity.

Milestones

- Funded 5 training projects in 2021 in Uganda, Ethiopia, Tanzania, Kenya and Benin.
- Delivered a Hinari MOOC course, a regular Hinari course and a French MOOC in 2021. The French MOOC was the first significant training activity for users in Francophone countries and was funded by the UN Tech Bank. 2300+ individuals were able to access the course material and 1018 (43.7%) participants have completed the courses' exams.
- Conducted 3 blended virtual Master Trainer Course in 2021, targeting West Africa, East Africa and Asia. The course trained 200+ users and was focused on training the trainers. Participants were required to complete the MOOC prior to attending.
- Developed a new series of webinars that promoted underutilized and new Research4Life resources.
- Revised a set of 'training presentations' in December 2021 to reflect the launch of the new Research4Life content portal.
- Collaborated with the Pan American Health Organization to promote of Research4Life within the Americas, including the development of several whiteboard videos and webinars.

“This MOOC has long been the missing key needed to unlock the resource-wealth of the Research4Life programme for the benefit of our research and academic communities.”

— KWESI SEWE, University of Ghana

Challenges

- The pandemic accelerated the transition from face-to-face training activities to a comprehensive virtual training program. In 2019, the R4L Capacity Development team initiated this move with the development of the MOOC funded by the Elsevier Foundation. This in turn has enabled LwB to further develop virtual training.
- Due to the COVID-19 pandemic, three of the 2020 projects were completed and two are in process of being finalized. For the five 2021 projects, two have been completed, two are pending and one will be delivered by July 2022.

Level of evidence

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

For the virtual Master Trainer Course, pre- and post-workshop surveys are completed; a six-month follow-up 'outputs' survey is also distributed. Anecdotal evidence is also collected as there are several open-ended questions within the post-workshop survey

Future plans

In 2022, support for Research4Life training through Librarians without Borders will draw to a close. After 15 years of support, Elsevier Foundation funding for Research4Life capacity building and training will shift to the new Country Connectors partnership (2022-2024) which promotes a South-to-South training paradigm. During the course of 2022, LwB will work to finalize the 5 final Hinari training grants and communicate the successes of this longstanding partnership to support Research4Life.

Main photo: Biliamin Popoola (third from left), from the University of Medical Sciences in Ondo City, Nigeria, delivers a 3-day course to train health sciences librarians on Research4Life. Below: Participants in a 2019 Research4Life training in Papua New Guinea.





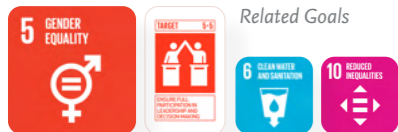
COACH University of Oregon

Water First!

Location: Africa

Target group: Women researchers and policymakers specialized in water science.

Budget: \$70,000 a year (2019-2021).



Related Goals

Primary outcome

Provide opportunities for women scientists, engineers and policy makers in Africa to be educated and empowered to assume those leadership roles in water research.

Overview

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 and storage, domestic cleaning, crop production and food preparation. 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. Lack of representation in decision-making roles removes women's vital contribution to water resource policymaking and management, and further exacerbates the existing disconnection between policy and implementation.

[Water First!](#) is one of the international programs directed by University of Oregon's COACH organization, working to increase the number and success of women in science and engineering careers. Since 1997, COACH has reached over 20,000 scientists in the U.S. and in 20+ developing countries. Water First! delivers workshops to women scientists to build capacity, create networks and provide professional skills development. Three initial Water First! conferences (Morocco in 2015, Namibia in 2016, and Rwanda in 2017) were funded by the U.S. State Department and served as a model for those supported by the Elsevier Foundation. Workshop materials were developed largely with funding from the U.S. Department of Energy.

Goals

- Foster a network of women researchers in Africa who have common interests in increasing international water research and support collaborative activities between women scientists in these countries.
- Leverage the Water First! network and the expertise of its participants to develop innovative and cross-disciplinary strategies for advancing the research and educational activities of women researchers and their students in these countries.
- Develop plans to maintain and grow this network and to extend its outreach to other scientists (men and women), communities, and institutions.

Milestones

- The first Elsevier Foundation-sponsored workshop was held in Ghana in September 2019 with 27 participants from across 15 African countries. A substantial proportion of the participants have continued their interactions through the COACH website, WhatsApp group, and email. To date, the WhatsApp group is very active with participants posting jobs, travel opportunities, conferences, etc. In addition, the WhatsApp group has been a strong gauge of how the group bonded in Ghana.
- In March 2021, the COACH team hosted a Water First! reunion for the Ghana workshop participants to continue engaging with the group and foster deeper connections.
- A virtual meeting was convened in the summer of 2021, including 17 participants specializing in water research.

Level of evidence

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

COACH conducts workshop networking surveys to determine the level of networking within the group. The information collected includes: Who did you know before coming to workshop?/Who did you meet for the first time at workshop?/ Who do you plan on keeping in contact in the future?. A follow-up survey is sent six months after the workshop.

Challenges

- Two of the planned in-person conferences in 202 had to be delayed. While COACH pivoted to virtual “check in” meetings, the impact on the partnership in terms of continuity was substantial due to the lack of in-person networking.
- Virtual conferences represent a challenge due to the participants’ slow or unreliable internet connections. For in-person meetings, challenges are largely related to political and economic conditions in Africa. Travel is often difficult from one African country to another, involving challenges in obtaining visas as well as often convoluted itineraries with few direct paths from some countries to others.
- Dr. Richmond has taken up a new position as Under Secretary for Science and Innovation at the US Department of Energy. This requires a new lead from the Water First! network to organize the 2022 workshops

Future plans

COACH will continue to facilitate and encourage online interactions and “check in” meetings among participants. To monitor networking progress, they will also send follow-up surveys to participants. As soon as conditions permit, COACH will plan another in-person event, hopefully during the course of 2022.

“Women’s lives are centered around water and yet, they aren’t working on policies and implementation. I want to see them become leaders, and that’s what Water First! is about.”

— PROF. GERI RICHMOND, Presidential Chair in Science and Founder of COACH, University of Oregon.

Main photo: Prof. Geri Richmond with the participants of the Water First! workshop in Rwanda. Below: participants in the 2019 Elsevier Foundation-sponsored Water First! workshop in Ghana.





Black Girls CODE

CODE Club Philadelphia

Location: US (Philadelphia)

Target group: Middle and high school girls from under-represented groups.

Budget: \$25,000 a year (2020-2022). Due to the pandemic, a no-cost extension has been granted.



Primary outcome

Offer an effective, culturally-sensitive, community focused STEM curriculum - and additionally provide soft skills training and core community building to foster deeper personal transformation, professional growth, and community ties for girls of color.

Overview

[Black Girls CODE](#) is devoted to showing the world that Black girls can code, and do so much more. By reaching out to the community through technology focused programs and events, Black Girls CODE introduces computer programming and technology to girls from underrepresented communities in technology areas such as web design, robotics, gaming, mobile app development and more. Black Girls CODE works to close the digital divide while simultaneously addressing the gender gap prevalent in the tech industry which comprises less than 20% women and only 3% women of color. There is an urgent need to engage larger numbers of women from communities of color in Information Technology careers. BGC seeks to inspire and support many more girls, from economically disenfranchised communities to find clear pathways out of poverty for themselves and, very often, for their families.

The mission of Black Girls CODE is to directly address the issue of racial equity by providing girls of color with an opportunity for early exposure to STEM focused technical careers, and by providing role models from the pool of existing female technologists to “shift the equation” and to feed the pipeline creating the next generation of leaders and builders in technology.

When girls don't see themselves represented in their classrooms or in the fields in which they have an interest, they often choose a different path. Black Girls CODE provides this important representation and also delivers programs in a culturally sensitive and supportive way. Their programs effectively redirect this pattern of under-representation and empower the next generation of female tech leaders. BGC has a broad impact on a large number of girls by introducing them to STEM and computer science, fostering their interest and skill building, and ultimately creating a community of learners and a network of support and resources on which students can lean.

Goals

The CODE Club in Philadelphia will be launched in 2022. It will:

- Provide students with a unique experience to acquire valuable coding and STEM skills.
- Position these students to secure high-powered career positions in the growing technology sector, creating a pathway for them to become the future leaders and innovators in the technology field.

Challenges

- During the Covid-19 pandemic,, Black Girls CODE postponed all in-person events as of March 2020. BGC was able to rapidly roll out their virtual learning opportunities with “Black Girls CODE Goes Virtual!”. Throughout the year, BGC staff carefully and creatively weighed options to provide educational and fun STEM activities and tools to keep students and the broader community, connected and engaged with one another.
- In 2020, Black Girls CODE held an impressive 170 virtual events with more than 9,500 participants.
- Due to the pandemic, BGC was not able to establish the necessary school and coaching network in Philadelphia to launch a new coding club.

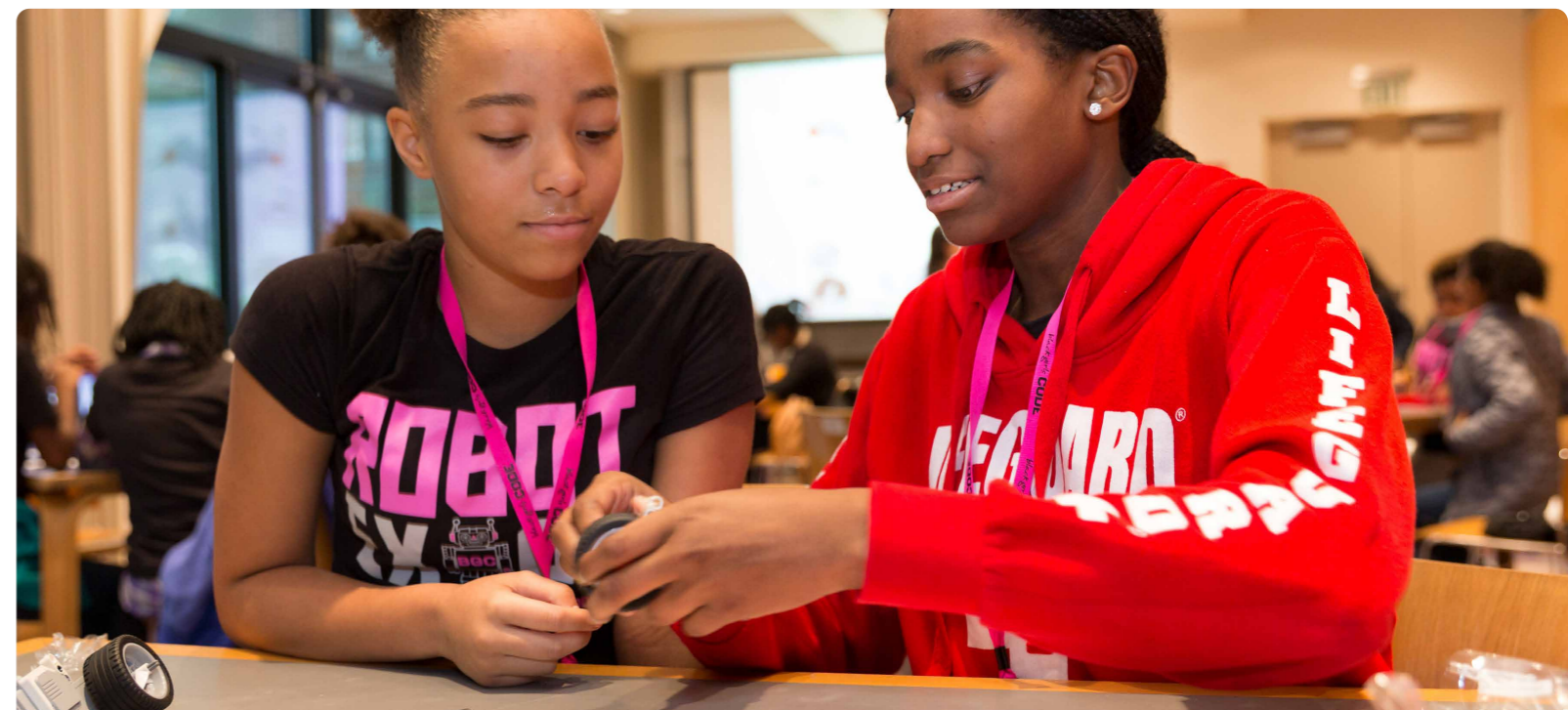
Future plans

In 2021, the Elsevier Foundation planned to support a CODE Club in Philadelphia, offering a series of interactive sessions throughout the duration of this 4-6 week summer program that includes mobile app development, web development, and game development. However, the impact of the pandemic meant that program had to be delayed. The Elsevier Foundation has granted Black Girls CODE a no-cost extension until 2023.

The program will provide participants with intensive training sessions to develop skills sets in one or more coding technologies. In addition to classroom instruction, office hours will also be available for participants throughout the duration of the program.

“Over the last three years with BGC, I have become fluent in languages like HTML, CSS, and Javascript. I have been taught community skills, how to work with team members, and fostered self-care between my coding sessions. BGC has given me confidence in coding with girls and boys my age or older, made me more open to opportunities/classes involving technology, and has given me the skill set I need to launch my own business”

— SYDNEY BROWN, BGC student. As the CODE club has not yet launched, the quote is from a current BGC student in the Future Tech Boss program. Sydney uses technology as a vessel to empower local entrepreneurs in her community. After participating in BGC workshops and garnering new skills, the 16-year-old launched her own web design business creating websites for small businesses in the Greater Detroit Area.





Girls Inc. of New York City

Pre-G3: The Elsevier Foundation Data Analytics Preparatory Program

Location: New York City
 Target group: Girls aged 12-15 years
 Budget: \$100,000 a year (2019-2021), \$75,000 a year (2022-2023).



Primary outcome

Girls completing Pre-G3 have a firm grasp of core skills and concepts in statistics and probability, greater confidence in their ability to succeed in a more rigorous mathematically focused course, and a stronger interest in continuing their study of data analytics.

Overview

Women hold just 25% of data science-related jobs and minority women have an even less advantageous employment outlook, according to a 2021 report by National Center for Women & Information Technology. In 2020, less than two in 10 women in the data workforce were minorities: Asian (7%), African American (3%) and Hispanic (2%).

Through its programming, Girls Inc, serving girls ages 6 to 18 at 1,400+ sites in 400 cities across the US and Canada, has prepared them to study in STEM fields and attain college and postgraduate degrees. GINYC has introduced hundreds of high schoolers to the field of data analytics through Generation Giga Girls (G3): The Moody's Data Analytics Program. However, the demand for more programming, serving girls at an even earlier age, has become a critical priority. GINYC partnered with the Elsevier Foundation to expand the pipeline, launching 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. [Pre-G3](#) fills that gap by creating a holistic, developmentally-appropriate introduction to data analytics, media literacy, critical thinking, and soft skills – addressing the broader questions of What is data? and Why should we care about data?.

“We talked about topics that were affecting us, like COVID infection rates and issues around racial injustice. It was a much needed safe space during a time of chaos and uncertainty.” — ISABELLA, GINYC student, 12 years old

Goals

- Improve math scores and overall academic scores.
- Increase curiosity and sense of self-efficacy in STEM, with a particular emphasis on data science.
- Increase belief in the importance of data analytics and stem
- Develop positive feedback loop between the girls' interest, knowledge, and skills.
- Increase the percentage of students readiness for high school-level study in STEM fields.
- Ensure that more than 50% of girls who complete Pre-G3 will participate in the follow up G3 program.
- Increase the percentage of students readiness for college-level study in STEM fields.
- Increase the number of students who graduate from a post-secondary institution with a degree in a STEM field.

Milestones

- In 202-21 Pre-G3 moved online and continued to serve **150** middle school girls: 85% joined through a blended-learning model, delivering curriculum both in-person and virtually.
- From February to June 2021, **150** new girls were enrolled in an abbreviated version for GINYC's outreach programs.
- Hosted a 5-week virtual summer camp, with the NYC Department of Education and the Department of Youth & Community Development, to introduce **200** girls to data analytics through entrepreneurship. Participants identified gaps of services in their communities and created apps and companies to address those in a “Shark Tank” inspired competition where they pitched ideas to founders and CEOs.
- Throughout the 2020-2021 academic year, girls in the GINYC programs continued to make improvements in academics, college readiness, and socioemotional competencies. Girls in the Pre-G3 demonstrated significant improvement in key areas, increasing knowledge about data analytics and improving problem-solving skills.
- 100% of girls enrolled in university in 2021, and girls from the GINYC programs continue to be far more likely than peers to begin college immediately after high school.
- 99% of girls in the Project REACH 2020-2021 continue to be enrolled in college; 88% of them went to four-year schools in 2020 and 93% were enrolled full-time.

Challenges

- In 2021, COVID continued to create challenges for schools, with more than 85% of students continuing virtual learning. To support them, GINYC delivered a hybrid learning model.
- 2021 continued to be a challenge, academically, socially and emotionally for GINYC students, who struggled with anxiety and depression due to social isolation. Parents who chose to keep children home struggled to find engaging activities.
- Academic cost of remote learning proved challenge to assess, due to cancelled exams, lack of standardized testing etc.

Future plans

- There is substantial demand for the data analytics program; 10+ schools have contacted GINYC in 2021 to deliver Pre-G3. To meet demands & increase the number of minority girls in STEM, the most effective strategy is to train teachers to deliver the program.
- The new GINYC Fast-Track Teacher Training Institute will ensure that teachers have the knowledge, skills and attitudes they need to deliver the program effectively. The objectives are to demonstrate mastery of the Pre-G3 content, ability to connect with students and an ability to relate to the target demographic.

Level of evidence

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

GINYC applies an Outcomes Measurement Strategy to help illustrate measurable differences. GINYC contracts REVA Group to evaluate behavioral outcomes and academic performance, using pre- and post- program surveys, teachers' observations, self-reported behavior change, focus groups, evaluation of standardized tests & report cards.

Main photo: Mariama answers a question in a lesson about probability and fairness in a class of the Pre-G3 Elsevier Data Analytics Preparatory Program. Below: Marguerite Copeland, Program Specialist for Girls Inc. of NYC, flips a coin during a lesson about probability.





IMC Weekendschool

Amsterdam STEM outreach

Location: Amsterdam West, The Netherlands

Target group: 10-14 years old

Budget: \$25,000 a year (2016-2021).



Primary outcome

Inspire students about career perspectives and help them to develop a specific set of competencies, including self-confidence and a professional network to achieve their goals in the future.

Overview

Encouraging careers among young people from communities with limited educational resources and few professional role models is crucial. For the past 21 years, the [IMC Weekendschool](#) (IMC) has offered an enrichment program for children in underprivileged neighborhoods across 10 of the Netherlands' largest cities. Over the course of the 3-year IMC curriculum, teachers, professionals, and volunteer coaches introduce 10–14 years old students to a wide range of disciplines while helping them to connect more fully to society, develop communication and conflict resolution skills and all-around character development to improve their career prospects.

Since 2015, the Elsevier Foundation has supported the Science and Health programs for the Amsterdam West-based Weekend School. The proximity of the Amsterdam West School to the Elsevier office has enabled colleagues to volunteer over the years. From 2019-2021, we also provided additional funding for the development and rollout of a new IMC Weekend School Technology program. With an average annual cost of €170,000 for the Amsterdam West location of the IMC Weekendschool, the Elsevier Foundation grant contributes to ca 12% of the annual budget.

Goals

- Stimulate identification with the lecturers, enabling students to experience what it is to be a professional and undertake a task that simulates a professional assignment.
- Deepen students' understanding about each field of study or work and how it can hold viable career opportunities for them.
- Develop students' essential life skills such as presenting, working together as a team, awareness of self and others, and exercising influence.
- Work with the students to generate enthusiasm, stimulate imagination and creativity, and develop critical thinking.

Milestones

- The Elsevier Foundation supported 2 modules in 2021 and a third module at the end of 2020 for a total of **10** weekend classes focused on Technology, Science and Health.
- **75** students attended the Science program, **40** students the Health program and **35** students the Technology one. **25** voluntary guest teachers were involved across the 3 modules.
- Health module: focus on the professions of doctor, nurse, neuroscientist and pharmacist, as well as exercises to understand the functions of different organs, and practical first aid interventions.
- Technology module: focus on computational thinking, binary language, artificial intelligence, coding, internet security, game design, VR-simulation and robotics.
- Science module: focus on stimulating curiosity, creativity and logical reasoning by conducting tests and experiments.
- A new theme was introduced for third year students: Gender, Sexuality and Consent.
- Collaboration with volunteers, families and alumni was further professionalized with a new training for volunteers, parent/caretaker council to better connect with families, and an alumni council to organize events for graduates. The IMCoach project enables young people 14-27 yrs old to volunteer and receive an EU-recognized social service certificate.
- During the pandemic, students were supported with online tuition, personal check-ins, educational spaces for vaccine questions, a special focus on impact of the pandemic and mental health, and in a few exceptional cases, free holidays for families living in tight quarters.

Challenges

Recruitment for the 19th cohort, who started their 3-year curriculum in October 2021, was a challenge due to covid-19 closures. Additionally, the team experienced high staff turnover and had to invest substantial time in training new team members.

Future plans

- Upgrade the content for all modules to ensure high standard in terms of pedagogy, didactics and organization.
- Integrate topics such as ethical values, gender equality, mental health as well as connections to local neighborhoods and world citizenship into the curriculum.

Level of evidence

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

The IMC Weekendschool uses both quantitative and qualitative data gathering, and point-in-time studies.

“I have learned that there are more ways to walk an educational path [...] I can get to study for the profession I really wish for.” —

RAYHANA, third year student

Main photo: IMC Weekendschool alumna Maryam Lyousoufi teaches current students about the field of medicine. Below: students build bottle rockets during astronomy class.





Imperial College London Maker Challenge

Location: London

Target group: 14-18 years old

Budget: \$100,000 a year (2016-2018); \$50,000 a year (2019-2021).



Primary outcome

Provide creative design and technical opportunities for local young people that are outside of their normal daily experience, and for students whose schools do not offer this exposure to experiential learning.

Overview

With the [Maker Challenge Program](#) (MCP), Imperial College London (ICL) pioneered a new form of outreach at White City, inspiring teenagers from disadvantaged backgrounds to experience and interact with science through their own creativity. It 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 Maker Challenge builds on decades of Imperial's more traditional STEM outreach. The program is based in White City and forms part of the larger "Invention Rooms" center which includes ICL's advanced hackerspace 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, planning, financial management, marketing and sales. 2021 marked the Elsevier Foundation's 6th and final year of early-stage funding for this important youth initiative.

"We need to listen to their needs, tap into their talents and, crucially, open our doors. The impact will be transformative, boosting opportunity, aspiration and innovation in White City and beyond for decades to come." — MAGGIE DALLMAN, Associate Provost, Imperial College London

Goals

- Develop technical vocational and business skills.
- Develop critical life skills necessary for employment: team-working, problem-solving, presenting and effective communication.
- Support personal growth, confidence and self-esteem.
- Provide opportunities to consider alternative career routes.

Milestones

- Participants attended **15** online training sessions and submitted their projects as a webpage and a video.
- Spring Cohort 1: 20 participants, 55% female; 45% male, 15 different schools.
 - Winners developed a new range of environmentally sustainable cricket equipment, a study app to help maximize time while studying, a shoe add-on to generate electricity while walking and an electronic device that eliminates the need to manually switch lights off.
- Spring Cohort 2: 20 participants, 50% female; 50% male, 20 different schools
 - Winners developed a home security app and device, sustainable products that teach young children about different cultures, shoes with adjustable heel height for optimum comfort and style and an inconspicuous broach shaped like a bee which when pressed will call an emergency number, track location or sound an alarm.
- Fall Cohort: 20 participants, 40% female; 60% male, 14 different schools.
 - Winners developed boots with a fast-working GPS installed, a portable interactive robot to help with daily tasks, a local-multiplayer game that works in a web environment and a device that tracks skateboarding tricks performance.
- The MCP team continues to work to broaden the types of young people applying, and support less academically literate applicants with phone and online help.
- 14 MCP students applied for study positions at Imperial College London, three were offered places and two took up this offer. The team continues to support their participants with workshops on various aspects of University application process, as well as post-education employment.

Challenges

- The pandemic continued to pose challenges in program delivery, staffing and participant recruitment. The virtual MCP, which ran smoothly and had good application and retention rates and received positive feedback. However, the workshop space is not being used to its full advantage and the team is keen to return to in-person programs.
- Recruitment remains at a 2:1 ratio of applications to places. ICL continued to use alternative channels to promote the program (school governors, youth groups and community forums), and will resume visiting schools in 2022.

Future plans

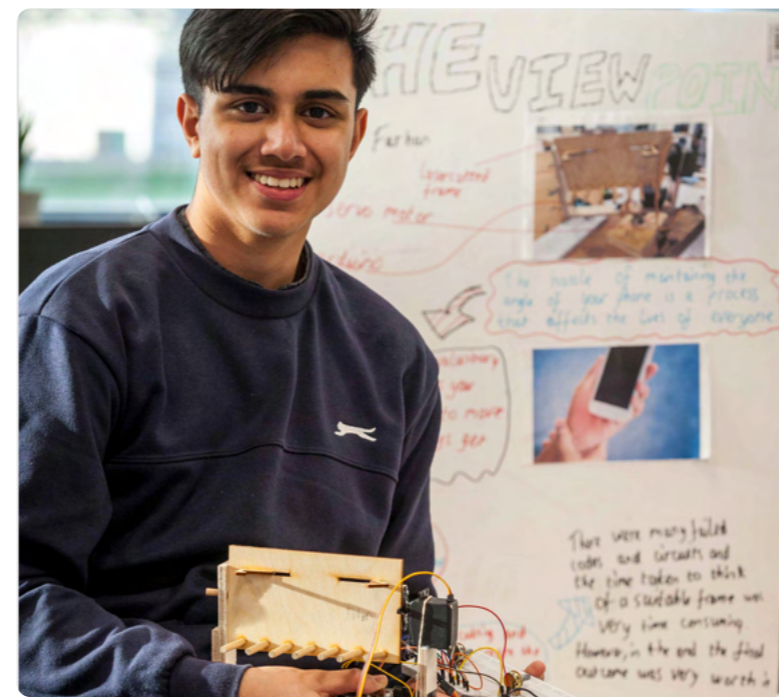
- Refine best online practices whilst face to face activity is limited
- Begin implementation of face to face sessions and 'catch up' training for graduates who have never been in the Maker Space
- Engage and recruit disengaged young people who have lower motivation.
- Further develop methodology & resource to provide information and advice on apprenticeships, education and careers.
- Start implementation of a program of work placements and experience opportunities with local business partners.

Level of evidence

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

Pre- and post-participation surveys to map baseline attitudes to STEM subjects, gather feedback and gauge aptitudes for comprehension and studies. Observational feedback from mentors, staff and parents/carers.

Photos: Participants in the Maker Challenge present their ideas during showcase events at the Imperial College London Makerspace in White City.



III. Early career researchers

2022 Partnerships portfolio



Above: Winners of the 2020 Agents of Change Award LaNell Williams (right), a PhD candidate at Harvard, with her colleagues in the Women+ of Color Project: Lavontria Aaron, a PhD candidate at John Hopkins University, and Juliana Garcia-Mejia and Jamila Pegues, NSF Graduate Research Fellows in Astronomy at Harvard. Next page: participants at Falling Walls workshops and events for women in science, including Dr. Juliana Chan, Publisher of the Asian Scientist Magazine (photo on the right).

Primary outcome

New portfolio to support inclusive research partnerships for women scientists and researchers from underrepresented minority groups to progress their careers.

Overview

In 2022, the Elsevier Foundation will support inclusive career progression through a series of innovative partnerships, which will nurture underrepresented early career researchers' ability to secure funding, expand their networks, gain recognition and increase representation in their field.

The new partnerships draw on recommendations from Elsevier's 2022 I&D Advisory Board Report, which highlights the need to support women and other underrepresented groups in academic research. Evidence from Elsevier's 2020 global gender report also indicates that while the representation of women in research is increasing, substantial inequality remains in terms of output, citations, awarded grants and collaborations, especially in the physical sciences and engineering. Women researchers and scientists were further disadvantaged during the pandemic, often bearing a disproportionate burden of family care. Structural racism also continues to be a prevalent stressor for researchers of color, who already feel isolated in many fields and disciplines.

Based on these findings and guidance, we have invested in 7 new partnerships in Japan, China, Singapore, Germany, the UK and the US which address the specific challenges faced by early-career researchers in their regions. The new partnerships will each receive between \$15,000 and \$50,000 for an initial pilot year of funding with possible renewed funding in years 2 and 3. The new portfolio builds on our existing early career researcher portfolio which includes the OWSD Elsevier Foundation Awards for Early Career women scientists from developing countries, Water First! workshops for African women scientists, TWAS women in climate action research and the Chemistry for Climate Action Challenge, in addition to many youth STEM pipeline programs.

Partnerships

- [Asian Scientist-Elsevier Foundation Salon for Leadership in STEM](#): Our partnership with the Asian Scientist magazine will offer a two-day intensive leadership program to equip women with the skills required for professional development and success. It is designed to create a safe space for women to gather, exchange ideas, get inspired and support one another in their professional journey. Location: Singapore | Budget: \$50,000 pilot
- [Falling Walls Female Science Talents Program](#): Our new partnership supports the broad-based promotion of talented women scientist and the promotion of exceptional 'Rising Stars'. It will help young talented women to make the transition from science to industry, offering them an international stage at the Berlin Science Week in November each year, and providing networks to help them to be internationally visible. Location: Germany | Budget: \$50,000 pilot
- [Rising Black Scientists Awards](#): This partnership will support the expansion of the successful Cell Press Rising Black Scientist award to also include physical scientists working in the disciplines of chemistry, engineering, physics, material science, data science, and other related disciplines. Location: US | Budget: \$22,000
- [Agents of Change Awards](#): Our goal is to expand the reach of the successful Materials Today Agents of Change awards which recognize initiatives that are taking practical steps to encourage an actively inclusive materials science research community. The 2022 awards will recognize initiatives and programs focusing on intersectionality within the materials science research community. Location: Global | Budget: \$15,000
- [Best Practice in Supporting BAME Researchers](#): Through our new partnership with Vitae, a UK non-profit championing the needs of early career researchers, we will convene UK grant recipients to share best practice around successful Black and Ethnic Minority (BAME) researcher support programs. This project aims to establish the right priorities to enhance the progression of Black researchers, catalyze innovative responses, and share good practice and tackle underrepresentation. Location: UK | Budget: \$50,000 pilot
- [Envisioning Futures](#): Through our partnership, Riken, Japan's largest research institute, will map the journeys of distinguished Japanese women scientists with a series of oral histories, shedding light on challenges and best practices in a country with a persistently low numbers of women researchers and research leaders. These experiences will serve to support women researchers to progress their careers and offer policy makers guidance for positive interventions. Location: Japan | Budget: \$40,000 pilot
- [Women in Science Workshops in China](#): In China, women researchers receive only 10% of funding and represent only 5% of academic staff at the Chinese Academy of Sciences. We will work with the Chinese Association of Women in Science & Technology to pilot a series of workshops offering leadership and networking training, speaking and academic writing skills at Elsevier-hosted academic conferences in China. Location: China | Budget: \$40,000 pilot

“The Salon for Leadership in STEM is anchored on raw conversations. With support from the Elsevier Foundation, we wanted to create a safe space for women in STEM to exchange ideas, find inspiration, and support one another in their professional journey.” — DR. JULIANA

CHAN, Publisher of the Asian Scientist Magazine



IV. The Elsevier Foundation Matching Gift program

To support community engagement, the Elsevier Foundation provides annual matching funds to charitable organizations supported by Elsevier employees. Each year, we earmark \$200,000 to match employee's individual and group donations to eligible non-profit organizations around the world. This fund is also used to support global disaster relief efforts championed by Elsevier colleagues. By matching employee gifts, both employee and Foundation resources are leveraged for maximum community benefit, ensuring that colleagues feel connected to the world around them.



“The Matching Gift makes it possible for colleagues to play a positive role in their local and global communities. Whether colleagues are doing charity runs or holding book sales, fashion days, pub quizzes or simply giving quietly under-the-radar, Elsevier employees’ generosity is overwhelming and their fundraising impressive..” — YLANN SCHEMM Director, The Elsevier Foundation

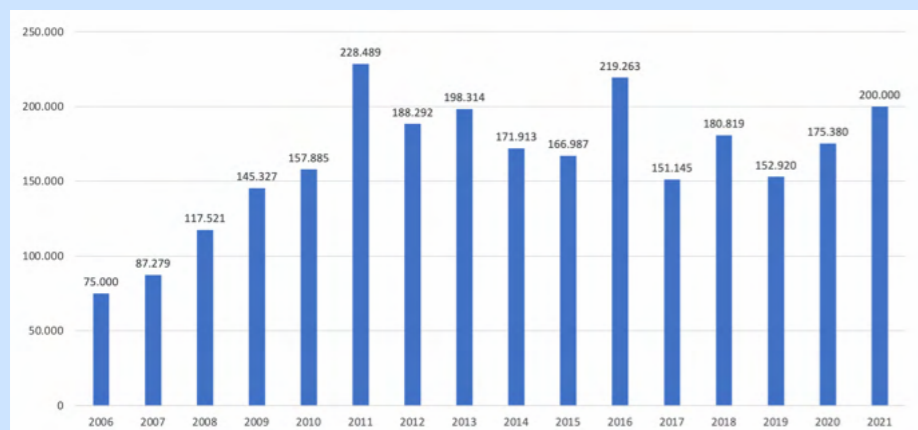
In March 2022, the Elsevier Foundation joined the RELX divisions’ Employee Giving Program (Lexis Nexis Legal and Professional, Risk Solutions and Reed Exhibitions) migrating our Matching Gift offering to the Benevity platform for charitable donation-management. As a new Matching Gift vendor, Benevity will offer significant economies of scale and expanded international giving. Benefits include:

- Single, consistent culture of giving worldwide
- Opportunity to manage giving campaigns across the company
- Direct payroll giving
- Integration into Elsevier’s Workday HR platform
- Reduced and streamlined approvals
- Centralized reporting

“One of things I love about Elsevier is the opportunity to stretch my donation funds further with the gift matching benefit. Our new Employee Giving platform not only makes this process simpler but it enables you to increase the impact of your donation. There are so many in need and Elsevier is answering the call to amplify our charitable donations.” — KEVONNE HOLLOWAY, Managing Director, Global Content Partners, Elsevier



Overview of Matching Gift expenditures 2006-2021



The table presents an overview of over a decade of Gift Matching. 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. The US matches also continue to comprise about 90% of all matches.

Breakdown of 2021 Gift Matching

US Gift Matching

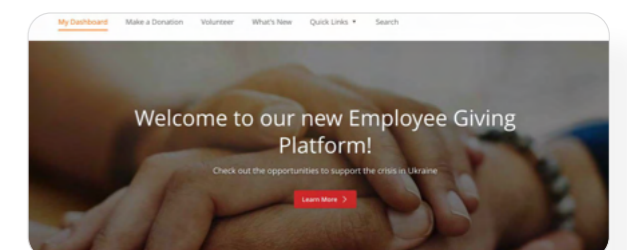
- Individual level: \$35,000
- Office level: \$20,000

International Gift Matching

- Individual: \$14,000
- Office level: \$10,000
- Exchange rate fees: \$4,000

Admin costs

- \$19,000



Employee Giving

Our new Employee Giving platform

Published by Rebecca Stockdale on Friday, March 18, 2022 4:00 PM

I am delighted to let you know about our new Employee Giving platform which we're sharing with colleagues across RELX. This is where all employees can have their charitable donations gift matched by the Elsevier Foundation up to US\$1,000 per year.

Did you know?

Over the last three years, Elsevier has matched over US\$470,000 of colleague donations.

This is now easier than ever with our new platform where you can simply donate directly to your favorite charity through the platform as well as request matches to donations you've made elsewhere through the Elsevier Foundation. It's all accessed through SSO (Single Sign On), can be found by searching for 'Matched giving' on PeopleHub, and you only have to choose a few setting options the first time you go in.

V. Research4Life

Over the past two decades, [Research4Life](#) (R4L) has worked to bridge the digital divide, providing free or low-cost access to research for publicly funded institutions in the world's least resourced countries. As a unique public-private partnership between UN agencies, universities and publishers, it aims to reduce the knowledge gap, stimulating productive and effective research, and promoting international collaborative research.

Research4Life is central to Elsevier's goal of achieving universal access to research information: as a founding and driving partner, Elsevier contributes over 20% of the peer reviewed resources in Research4Life, encompassing databases such as Science Direct, Scopus, Clinical Key, Mendeley and Embase.

Every 5 years, Research4Life conducts a series of strategic reviews to support the evolution of its strategy. Conducted in 2020 and 2021, the landscape, user and infrastructure reviews clearly show that the landscape in which Research4Life is operating is evolving rapidly and that the partnership has not yet achieved its full potential in terms of awareness, reach, understanding, effective usage and impact due to under-resourcing. To respond to Research4Life's unmet resource need and enable the partnership to scale up capacity building, the Friends of Research4Life (FoR4L) was established as a US-based 501(c)(3) charitable organization with an independent governance structure and Board of Directors.

The mission of Friends of Research4Life is to serve as an effective fundraising vehicle and accelerate Research4Life's goal to provide much-needed access to peer-reviewed research, extend Research4Life training initiatives that help level the playing field for researchers in lower- and middle-income countries, significantly increase awareness and usage of the resources offered by the Research4Life publishing partners, and facilitate the research communication process.

“This is really about increasing impact. Friends of Research4Life will enable us to catalyze support for Research4Life, so that we can scale up the important contributions made over the past two decades in access, information literacy and capacity building in developing countries. We invite like-minded organizations to join us in ramping up support.” — YLANN SCHEMM, Chair, Research4Life Executive Council.

- 154,000+ total resources
- 30,000+ journals
- 131,000+ books
- 155+ other information resources
- 10,500+ registered institutions
- 125+ countries
- 200+ publishers partners
- 5 UN Agencies

“Doctors could now read updates and get news that would be useful for their research: Research4Life was the main reference for reliable information.”

Dr. Le Thanh Ni
Cho Ray Hospital
Vietnam

“I can't imagine being able to do my research without Research4Life. Neurosurgery is a rapidly evolving field, and Research4Life allows me to read what I need to be able to stay up to date.”

Dr. Pratyush Shrestha
Upendra Devkota Memorial
National Institute of Neurological and Allied Sciences
Nepal

“Research4Life helps me get better, early diagnoses and improves disease management and the overall wellbeing of a community. This has a long-term impact.”

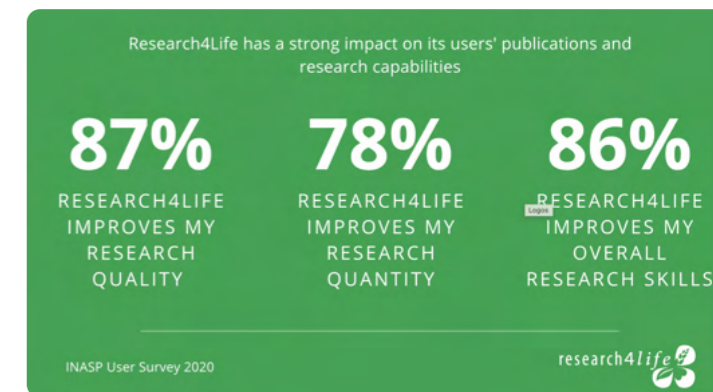
Dr. Lulu Fundikira
School of Medicine, MUHAS
Tanzania

Unique contributions

The Elsevier Foundation contributes important resources to Research4Life information literacy capacity building:

- Ylann Schemm, Director of the Elsevier Foundation, has worked with Research4Life since 2009 and currently serves as Chair of Research4Life's Executive Council. Domiziana Francescon, Elsevier Foundation Partnerships Manager, is the Co-Chair of the Communications and Marketing team. In addition, colleagues throughout Elsevier are involved in a range of Research4Life taskforces e.g. eligibility, fundraising, technology and training.
- Over the years, the Elsevier Foundation has played a key role in supporting capacity building for Research4Life, providing over \$500,000 in grants to support training since 2008. This includes funds for the first FAO-led training MOOC and a decade of support for the Medical Library Association's Librarians without Borders® program supporting 25 training grants for librarians and 90 training workshops in 40+ countries.
- In 2022, the Elsevier Foundation will support Research4Life's newly launched [Country Connectors project](#). This new training approach aims to address the need for local interventions to heighten awareness and strengthen capacity of information use and management, as well as build communities of evidence users within national and regional settings. Coupled with well-planned implementation frameworks per region and country, this tailored approach will produce high impact for Research4Life.

“The wealth of information available in Research4Life can transform your research for life. It has worked for me. It will surely work for you.” — SAMUEL TETTEH, Senior Lecturer, University of Cape Coast, Ghana



Strategic plan to 2030

For the past 20 years Research4Life has sought to bridge the digital research divide for researchers, librarians, doctors, policymakers, and many others in developing countries – equipping them with the access and tools they need to find evidence-based research and make robust decisions based on trusted, peer reviewed information.

While the pandemic has underscored the critical role that science plays in society, it has also revealed just how rapidly the world in which we operate has evolved since Research4Life was founded. This realization has helped Research4Life to consider its own role as a public private partnership as it shapes its 2022 Strategic Plan.

Based on a series of strategic reviews with partners, users and experts, Research4Life will expand its focus beyond access to knowledge. To truly support a more inclusive and equitable research ecosystem and make progress on the UN SDGs, Research4Life will take a more holistic approach, supporting its community of users with both access and capacity building as both consumers and producers of research.



VI. Media outreach

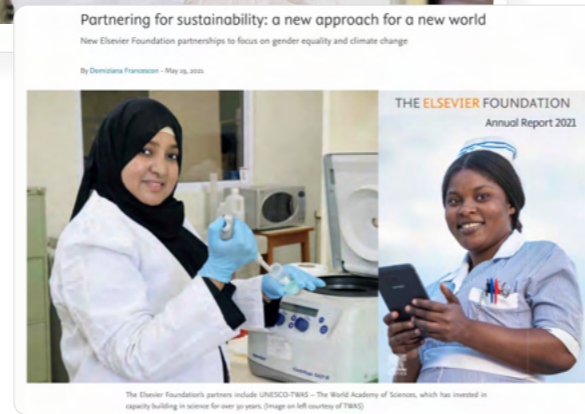
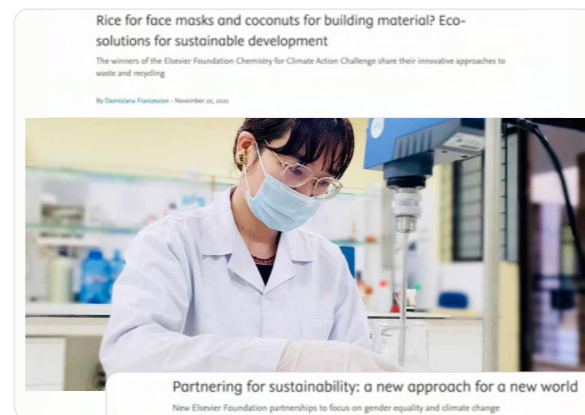
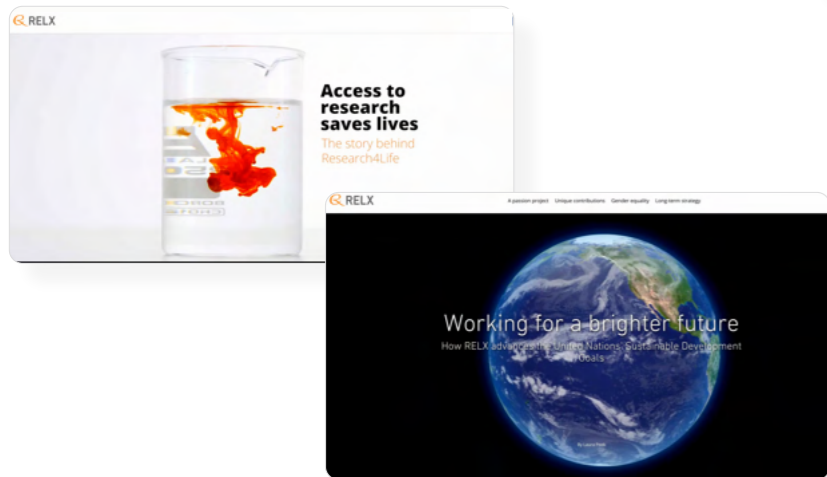
Media coverage

Creating visibility for our Elsevier Foundation partnerships is one of our core priorities. By raising awareness around the issues and partners we support, we are able to connect directly with our communities. In 2021, we targeted traditional or ‘earned’ media through pitches and press releases, with a total of **14** articles featured in a range of outlets including global wires service Reuters.

Though traditional media remains challenging given our ‘good news’ focus and a busy news cycle in our areas of focus, each year we receive attention from mainstream media for our OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World — for which we are able to tap resources from Elsevier’s Global Communications team, e.g. to deliver Elsevier Connect articles, press releases, media pitching, and a steady flow of social media content, from Twitter posts to LinkedIn blogs spotlighting the winners.

In addition, we produced a steady series of articles in [Elsevier Connect](#), Elsevier’s online news magazine with a readership of 2.2 million in 2021. Over the course of 2016 to 2021, we have written **78** articles for Elsevier Connect exploring our partnerships. We also actively leverage our social media and website channels to showcase our partnerships and projects throughout the year.

Elsevier’s parent company RELX has written two articles featuring the Foundation’s programs and partnerships, [Access to research saves lives: The story behind Research4Life](#) and [Working for a brighter future](#), both highlighting our commitment to the success of the UN Sustainable Development Goals.



Website

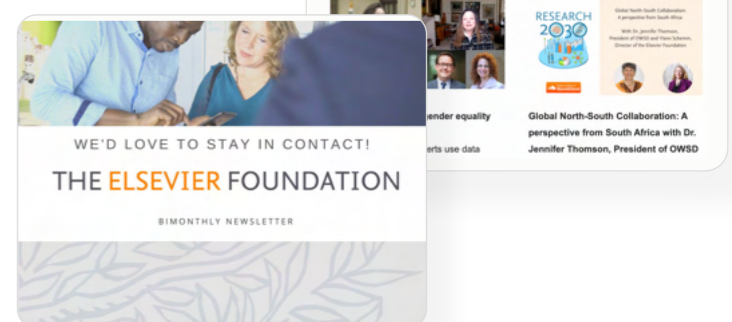
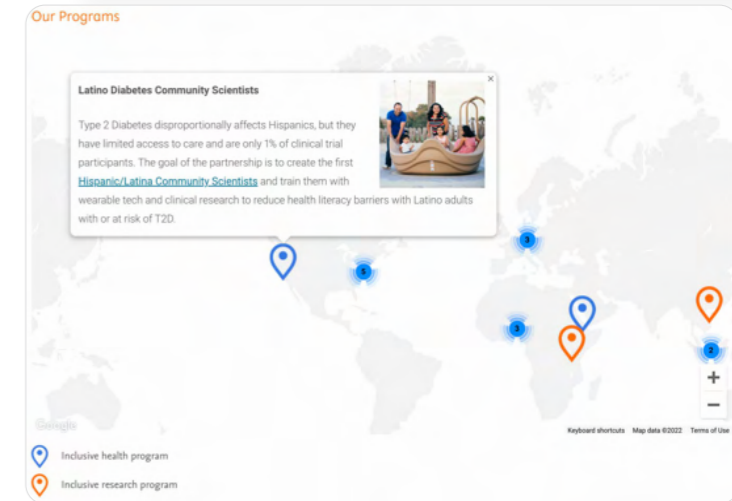
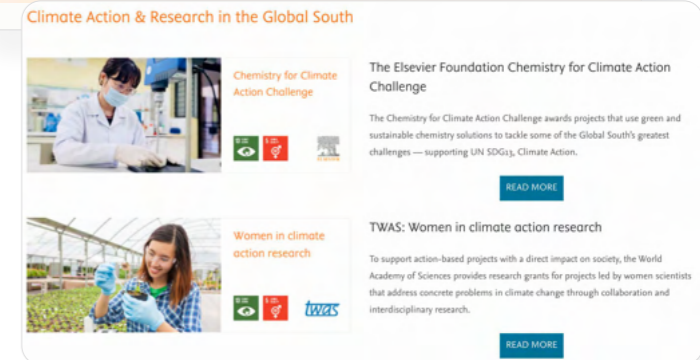
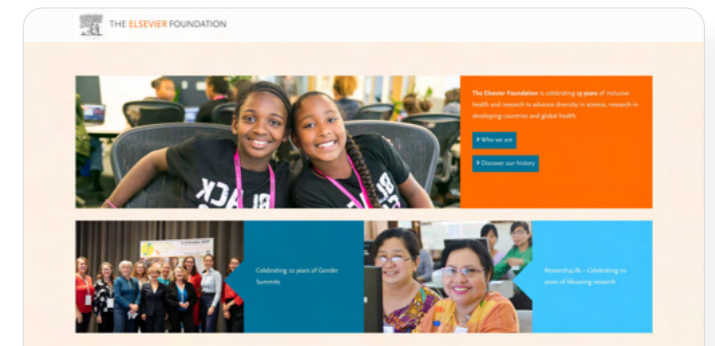
We strive to maintain a [dynamic website](#) by sharing new content on a weekly basis. The website is supported by WordPress, a cost effective, open-source content management system, incurring few costs beyond hosting and occasional wireframe updates. In 2021, the website underwent a redesign of its homepage and news page to better align to Elsevier branding, featuring a new interactive map to showcase the geographical distribution of our partnerships.

We have also added a new tagging feature to allow for the exploration of topics, articles, blog posts and partnerships by SDGs, highlighting our commitment to the Goals. We have on average **3,250** monthly visitors with the majority coming from the US, the UK, China and India, followed by the Philippines, The Netherlands and Germany. This geographic spread reflects our efforts to reach audiences in developed and emerging countries while raising the profile of the Foundation among like-minded organizations, partners, journalists and others in our sector.

Newsletter

As we grow our community of partners working in inclusive health and research areas, we also share the latest Elsevier Foundation milestones and updated through our [bimonthly newsletter](#), which we started in Q4 2019.

The newsletter is sent to an internal audience of **8000+** Elsevier employees, with the aim to familiarize our colleagues with the Foundation's work, and share stories of meaningful social impact. Externally we reach an audience of **2000+** partners. In the future, we have to continue growing our audience through targeted social media messaging, as well as by tapping our partner's networks, to ensure further dissemination.



VI. Media outreach

Social media

Social media brings its own rewards and special challenges. Maintaining active channels, in addition to a dynamic website, is labor intensive for a small team and requires careful prioritization. However, we believe that the channels which we have developed provide us with a direct connection to our communities. We are working to enhance engagement with influencers such as partners, journalists and others in our sector.

During 2021, we have redesigned our assets to better align with Elsevier branding, aiming for a professional, modern look in the social media content we produce.

LinkedIn

LinkedIn has proven to be extremely valuable for non-profit organizations due to its large audience of business-to-business professionals who are looking for connections and relevant stories. In 2020, we launched the Foundation's [LinkedIn page](#), set up as a showcase page linked to the main Elsevier account, enabling us to benefit directly from their significant presence on the platform. As the majority of our partners and stakeholders use LinkedIn, an active profile on this platform allows us to extend our reach and engagement with our target audiences. Our goal is to serve as a regular provider of dynamic content around inclusive research, health and sustainability.

Since 2020, we have steadily increased our number of followers and page views, reaching a total of **745** followers in April 2022. Featuring the OWSD-Elsevier Foundation Women in Science Awards on LinkedIn has also enabled us to gain momentum with increased engagement and reach around the winners in February 2022. We will continue to highlight key moments such as this to build our engagement, and we are increasingly showcasing relevant content from across Elsevier — which enables us to tap into a larger audience base.

15+ million USD
in grants to catalyze change towards the UN Sustainable Development Goals.

THE ELSEVIER FOUNDATION

17 SUSTAINABLE DEVELOPMENT GOALS

50 women scientists
from 20+ Global South countries awarded through the OWSD-Elsevier Foundation Women in Science Awards.

THE ELSEVIER FOUNDATION

5 GENDER EQUALITY

15 years of inclusive health and research to advance diversity in science, research in developing countries and global health.

THE ELSEVIER FOUNDATION

Twitter

2021 has been an important year for the Foundation's [Twitter channel](#), which has evolved into our chosen vehicle to provide live updates from events at which we have a presence. We actively increased our social media engagement with partners and audiences during events such as the Chemistry for Climate Action Challenge, Gender Summit Europe and the OWSD-Elsevier Foundation Awards for Women in Science in the Developing World.

By live-tweeting during these events, we were able to intensify interaction with our audiences, increasing our Twitter engagement rate by **10%** overall from Q1 2021 to Q1 2022, rising from **1.02%** to **1.13%**: Twitter average engagement rate for NGOs is around 0.04%. Our engagement rate per post has also significantly increased, demonstrating that while our overall engagement scores remained stable, our audience has increased their interaction with top news shared via Twitter. We were also able to maintain our reach throughout 2021.

In 2022, we plan to enhance engagement by tapping more deeply into partners' content and sharing expertise on sustainability and inclusive health & research through a targeted Twitter plan.

Collaboration with colleagues in Elsevier and RELX who conduct regular social media campaigns yields better results for the Foundation. Outreach around United Nations Awareness Days (e.g. Earth Day, International Women's Day) allows us to highlight partnerships and share a portfolio of academic content made available by Elsevier.

This collaboration was essential to the successful delivery of the OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World, tapping Elsevier's communications expertise to increase engagement and reach. Twitter impressions and engagement also increase when posts are tied to a specific event and spotlight partnerships, helping us to further amplify our reach. Successful examples include Chemistry for Climate Action Challenge, Gender Summit, AAAS Annual Meeting OWSD-Elsevier Foundation panel session, Academic Publishing Europe conference, and more.

In all the women involved in the project, prevails the desire to take care of the environment. With perseverance and by continuing to work together to achieve positive outcomes, we are all agents of change.

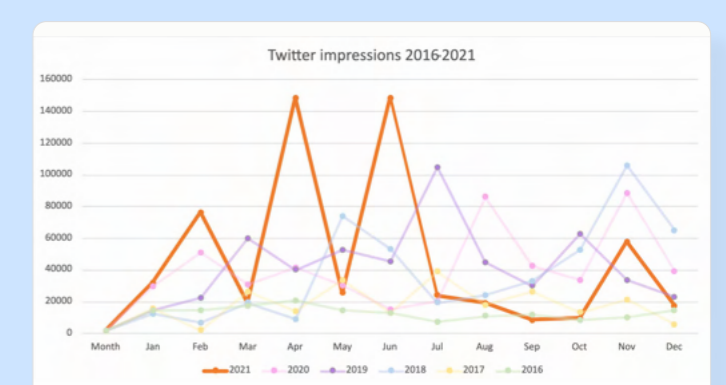
Dr. Diana Carolina Parada
Universidad de Ingeniería y Tecnología, Peru
Winner, 2020 Chemistry for Climate Action Challenge

5 GENDER EQUALITY 13 CLIMATE ACTION

The environment is our heritage and collective responsibility to nurture, preserve and protect. Let's live and consume responsibly to save today for the future generations.

Prof. Chioma Blaise Chikere
University of Port Harcourt, Nigeria
Winner, 2017 Chemistry for Climate Action Challenge

5 GENDER EQUALITY 13 CLIMATE ACTION



VII. The Elsevier Foundation and Elsevier: Advancing the UN SDGs

Science, research and innovation are fundamental to achieving the sustainable and equitable future envisaged by the UN Sustainable Development Goals. With an ambitious 2030 target, there are only 10 years left to accelerate action and drive positive change. From Elsevier's publishing portfolios and analytics capabilities, to supporting unique partnerships and working with the global research and health communities, we believe that it is possible to achieve significant progress towards the Goals. The Elsevier Foundation forms an integral part of Elsevier's [corporate responsibility program](#), which centers on unique contributions to sustainable development in health, gender, reduced inequalities and climate.

Inclusive Health



Health is our most valuable asset and we believe that everyone deserves access to the best possible care. The Lancet [Global Health Commissions](#) identify key actions and inform policy makers by bringing together experts to reflect on burning health issues. Our [analytics reports](#) shed light on the latest HIV/AIDS, Alzheimer and melanoma research – and since 2020, the [Coronavirus Resource Center](#) provides free expert, curated information for the research and health community. The Elsevier Foundation provides a special focus on [inclusive health partnerships](#) tackling health disparities and increasing access to training and care for those who need it most.

Will data analytics be the key to improving patient outcomes?

A new global report by Elsevier providing insights on the future of healthcare is coming soon

Health
ELSEVIER

GG

The best approach to getting the word out in minority communities is for nurses to actually go into the communities so they can educate, perform screenings, and speak to the people about preventative healthcare.

Jasmiry Bennett, DNP, APRN, ACNP-BC
Nurse Practitioner Specialist, Yale
Editor-in-Chief, *Journal of Vascular Nursing*

Gender Equality



Elsevier's mission is to help science and healthcare realize its full potential through quality content, analytics and inclusion. But if research has blind spots, datasets are incomplete or medical treatments don't incorporate gender dimensions, we cannot truly serve our communities. We bring together the best minds in our [I&D Advisory Board](#), cooperating on meaningful partnerships with the [Gender Summit](#), providing [awards for women in STEM](#) through the Elsevier Foundation, and [publishing research](#) on women's participation, career progression and perceptions. Our recent report, [Making progress towards a more inclusive research ecosystem](#), captures the meaningful interventions we are making to create greater diversity in editorial boards, conferences and research.

GG

Sustainability research suffers from gender blindness. Unless this changes, the implementation of SDGs will not achieve the successes it could, and women will be left behind.

Elizabeth Pollitzer
Director
Portia / Gender Summit

I believe strongly that to move the needle on all dimensions of diversity & inclusion it requires advocacy and collaboration, supported by evidence-based policies, measurement and accountability.

Kumsal Bayazit
CEO, Elsevier

Reduced Inequalities



Science and research are key drivers for positive global societal change. As a partner in the research community, Elsevier has a role to play in reducing inequalities. We are a founding and driving partner of [Research4Life](#), a UN-publisher partnership providing training and access to research in developing countries. We support inclusive initiatives such as [patient access](#), the [Rising Black Scientists Awards](#), and are committed to [reducing biases in the publishing industry](#). At the [Elsevier Foundation](#), we work to increase opportunities, visibility and inclusion for STEM researchers from the Global South, women scientists and underserved youth.

Elsevier Inclusion & Diversity Advisory Board

Making progress towards a more inclusive research ecosystem

[Find out more >](#)

Data is the greatest tool for decision making. I hope that it will really help us to have transparent and accountable health systems to make especially sure that marginalized and underprivileged communities are not left behind.

Nargis Rahimi
Co-founder, Shifo Foundation

GG

To build a truly inclusive research culture, we must have a dedicated focus on the Global South.

Ylann Schemm
Director, Elsevier Foundation and Corporate Responsibility, Elsevier
Chair, Research4Life Executive Council

Climate Action



The world is at a defining moment where we are experiencing dramatic changes to our ecosystems. At Elsevier, we are using data combined with content and subject expertise to gain unique insights into how research can accelerate efforts to mitigate the effects of climate change, as highlighted in the latest [Net Zero report](#). Our [Climate Advisory Board](#) convenes distinguished experts in the fields of climate research. We are committed to [achieving net zero emissions before 2040](#) and support [partnerships to advance climate action](#) through the Elsevier Foundation.

Pathways to Net Zero: The Impact of Clean Energy Research

Evaluate national trends, funding opportunities and policy insights

[Find out more >](#)

It's only recently that climate change and migration have been linked, especially in terms of health, so we're hoping this is the beginning of a journey of understanding and action.

Jocalyn Clark, PhD
Executive Editor
The Lancet

10+ green chemistry projects

awarded through the Chemistry for Climate Action Challenge.

THE ELSEVIER FOUNDATION

VIII. Financial overview

2020-2022 Program allocations

| | | 2020 | 2021 | 2022 |
|--|--|-----------|-------------------------|-----------|
| INCLUSIVE HEALTH | | | | |
| Amref Health Africa | Innovate for Life | \$50,000 | | |
| Amref Health Africa | Leap mLearning | \$40,000 | \$40,000 | \$50,000 |
| Black Women's Health Alliance | Millennial Sister Circle | \$25,000 | \$25,000 | \$25,000 |
| HBCU Scholarships | NLN HBCU program cohort | \$50,000 | \$50,000 | \$50,000 |
| Julius L. Chambers Biomedical Biotechnology Research Institute | Implementation Science Program | \$100,000 | \$100,000 | \$100,000 |
| MSF/Epicentre | Niger Research Center | \$100,000 | \$50,000 | \$100,000 |
| National League for Nursing | NLN/Elsevier HBCU Innovation in Technology Excellence program | \$60,000 | \$100,000 | \$100,000 |
| Sansum Diabetes Research Institute | Latino Diabetes Community Scientists | \$60,000 | \$100,000 | \$100,000 |
| INCLUSIVE RESEARCH | | | | |
| Black Girls CODE | Philadelphia Code Club | \$25,000 | \$0 (no cost extension) | \$25,000 |
| COACH University of Oregon | Water First! workshops | \$70,000 | \$70,000 | |
| Girls Inc. of New York | Pre-G3: The Elsevier Foundation Data Analytics Preparatory Program | \$100,000 | \$100,000 | \$75,000 |
| Imperial College London | Maker Challenge | \$50,000 | \$50,000 | |
| IMC Weekendschool | Amsterdam health, science and technology outreach | \$25,000 | \$25,000 | \$25,000 |
| The Elsevier Foundation | Chemistry Challenge | \$50,000 | \$28,000 | \$28,000 |
| Medical Library Association | Librarians without Borders/ Research4Life training | \$45,000 | \$45,000 | |
| Research4Life | Country Connectors | | \$70,000 | \$70,000 |
| OWSD | Awards for Women in Science | \$86,000 | \$60,000 | 100,000 |
| TWAS | Gender Equality & Climate Action | | \$100,000 | 100,000 |

| | | 2020 | 2021 | 2022 |
|-----------------------------|--------------------------------|--------------------|--------------------|--------------------|
| GenderinSITE | Report women representation | | \$60,000 | |
| Aidsfonds | Tanya Marlo | | | \$50,000 |
| Elsevier Materials Sciences | Agents of Change Awards | | | \$15,000 |
| Cell Press | Rising Black Scientists Awards | | | \$22,000 |
| Falling Walls Foundation | | | | \$50,000 |
| Vitae | | | | \$50,000 |
| RIKEN | | | | \$40,000 |
| Asian Scientst | | | | \$50,000 |
| | | | | |
| Matching Gift | | \$200,000 | \$200,000 | \$200,000 |
| TOTAL | | \$1,136,000 | \$1,273,000 | \$1,425,000 |

2020-2022 Overview of programs

| | 2020 | 2021 | 2022 |
|--------------------|--------------------|--------------------|--------------------|
| INCLUSIVE HEALTH | \$485,000 | \$465,000 | \$525,000 |
| INCLUSIVE RESEARCH | \$451,000 | \$608,000 | \$700,000 |
| MATCHING GIFT | \$175,380 | \$200,000 | \$200,000 |
| ADMIN | \$90,000 | \$90,000 | \$90,000 |
| TOTAL | \$1,201,380 | \$1,363,000 | \$1,515,000 |

IX. 2021 Board meeting minutes

October 5, 2021 — Video conference

ATTENDING

External Board Members

Yuko Harayama

Nikunj Jinsi

Beverly Malone

Emilie Marcus

Geraldine Richmond

Ex Officio Board Members

Márcia Balisciano

Kumsal Bayazit

Youngsuk (YS) Chi

Kevonne Holloway

Jan Herzhoff

The Elsevier Foundation Team

Ylann Schemm, Director

Domiziana Francescon, Partnerships Manager

Maha Rhannam, Coordinator

Maria Markova, Treasurer

Ken Thompson II, Legal Counsel

Elsevier Foundation Advisors

Mev Samarasinghe, VP Technical Fellow, Elsevier

I. WELCOME

YS Chi opened the meeting on behalf of the Elsevier Foundation. He thanked the Board Members who have taken time to share their expertise and highlighted the need to make good use of resources such as the Elsevier Foundation.

YS clarified recent changes in the Elsevier Foundation Board, noting that Suzanne Bedell had recently retired and John Danaher had left the company to pursue a new opportunity. He introduced two new ex officio Board members: Jan Herzhoff, President of Health Markets and Kevonne Holloway, Managing Director, Global Content Partners who had served as a key Foundation advisor and worked with the team to establish new race & ethnicity partnerships in 2020. YS Chi concluded his welcome by listing the objectives of the meeting: to share progress on the Foundation's programs, propose a new portfolio of early career researcher partnerships and hold a strategic discussion on the new portfolio.

Kumsal Bayazit welcomed the Board on behalf of Elsevier, updating everyone on Elsevier's commitments to the UN Sustainable Development Goals, becoming Net Zero by 2040 and signing the Climate Pledge. She added that while Elsevier was already net zero for its own direct emissions, it will now focus on Scope 3 emissions from suppliers and setting a clear target to reduce carbon emissions from business travel by 50% before 2025. Kumsal also noted that Elsevier had established an External Climate Advisory Board of distinguished research experts to help identify challenges, explore best practises, new content areas and initiatives that will accelerate progress in climate change research. In addition, Kumsal announced that a new analytics report mapping the net zero pathways in renewable energy will be published in the coming weeks.

Kumsal highlighted that Elsevier has continued to reinforce its Covid Resource hub and vaccine toolkit with the latest medical information, approved treatments and guidelines as well as other useful tools to help doctors, nurses and staff provide care. She was particularly proud to have interviewed the founders of BioNTech, CEO Uğur Şahin and Chief Medical Officer Özlem Türeci about their incredible journey to develop the mRNA Covid vaccine.

YS thanked Kumsal for her insights and shared his learnings from his keynote address at the Latin American Gender Summit on the status of gender equality in Latin American research. He used the story of Maria Lorena Ramirez, an ultramarathon runner from the Tarahumara people in Mexico known for their long-distance running culture and inclusive society to highlight the need to keep 3 crucial elements in mind when crafting the early career researcher program: inclusion, diversity and belonging.

Finally, YS shared the agenda and reminded the Board that an external speaker, Kimberly Parker, Hinari Program Manager at the World Health Organization and a key Research4Life driver would be joining to discuss the proposed Country Connectors' partnership.

II. ADMINISTRATIVE PROCEDURES

YS asked the board to ratify the 2021 Board Meeting minutes and invited Board members to comment if they had any comments or changes. The 2021 Meeting Minutes were then ratified through a unanimous vote.

III. 2021 OVERVIEW

Ylann Schemm began the program overview by reminding the Board of The Power of Data to Advance the SDGs, Elsevier's report which mapped the state of research within each SDG research area and helped the company and the Elsevier Foundation to define unique contributions in health, inclusion & diversity, and climate action. Ylann clarified that the team had spent the last two years addressing critical gaps in the Elsevier Foundation partnership portfolio by adding new partnerships addressing race and ethnicity issues and new climate action projects with a strong gender lens. Ylann explained that 2 new partnerships would be presented: "Ask Marlo" which provides Indonesian youth with reproductive health and HIV/Aids support through a digital stepped care system and "Country Connectors" which will evolve the Foundation's training support for Research4Life.

IV. RACE & ETHNICITY PARTNERSHIPS PORTFOLIO UPDATE

BLACK WOMEN'S HEALTH ALLIANCE

Ylann provided updates on Philadelphia's Black Women's Health Alliance (BWHA) partnership. This grassroots non-profit focuses on improving health outcomes and reducing health disparities for African American women of all ages through advocacy, education, research and support services. She reminded the Board that they had received a \$25,000 seed grant to support The Millennial Sister Circle which offers young Black women (ages 20-39) a space to learn about how to improve and maintain their health and wellness, tackling the root causes of health disparities.

The BWHA initially developed the concept working closely with a team of consulting African American physicians to create the Prime-Time Sisters circle which targeted an older demographic. Throughout 2021 they have worked closely with millennial focus groups to refine their approach to relevant issues, recruiting subject matter experts, drafting the content, designing pre and post surveys and developing a multimedia learning platform. The Millennial Sisters Circle will launch in the coming months, training 50 women at a time in a series of 4-part workshops. The BWHA aims to embed both programs into Philly's medical referral and treatment services to scale up impact. The consulting physician team, Dr. Gaston and Dr. Porter will be monitoring the program and collecting and publishing the data to disseminate further. Ylann noted that the program was promising and said that they hoped to continue funding it in 2022 after reviewing it with Kevonne.

BBRI IMPLEMENTATION SCIENCE PROGRAM

Kevonne Holloway shared a positive progress update on the Implementation Science program led by Dr. Kumar at the Biomedical Biotechnology Research Institute at North Carolina Central University. Kevonne noted that with the grant, Dr. Kumar's team was able to hire a part-time program manager and is offering implementation science training for 10 faculty across NCCU. The participants will develop an Implementation Science course for undergrads, ensuring the sustainability of the program.

At the same time, BBRI teams are working on two Implementation Science pilot research projects, focusing on preventing chronic disease and improving the uptake of community resources for primary care. These projects were vetted and selected from a larger pool of proposals. The research teams are currently taking IS courses – which will help them to further refine their projects.

Kevonne added that BBRI was also leveraging support from Duke University and RTI International, an independent nonprofit research institute for collaboration and mentoring support on projects. BBRI is also combining their efforts with funding received from ViiV Healthcare, a pharmaceutical company located in North Carolina which focuses on sustainable HIV education, treatment, prevention and access to care programs. These funds are being used for three additional HIV-related implementation science projects and ancillary activities – and they have expressed interest in continuing the project as a joint Elsevier Foundation-ViiV Implementation Science Program.

BLACK GIRLS CODE

Keवonne updated the Board on the launch of the Philadelphia CODE Club planned for the end of October. She noted that the 6-week 2-hour program will be a hybrid experience with both in-person classes and virtual exercises to meet the needs of the learners. Black Girls CODE will recruit 25 students from local schools, as well as 2-4 instructors and 4 volunteers who will assist with exercises, questions and virtual breakout rooms. Keवonne noted that the goal is to recruit tech volunteers from the Elsevier Philadelphia office and shared that she is currently moving to the Philadelphia area.

Emilie Marcus asked how the team planned to monitor success and measure outcomes for these projects. Ylann responded that these projects have been in a startup phase and progress was delayed because of the pandemic. However, BGC will provide metrics once it launched. Ylann concluded the session by reminding Board members that these 3 partnerships, including the HBCU nursing scholarship fund form part of a targeted grant received from Elsevier's Race & Ethnicity taskforce. They have made strong progress and she hopes to provide a second year of funding to all of them. .

V. NEW INCLUSIVE HEALTH PARTNERSHIP: AIDSFONDS

Domiziana Francescon introduced the new partnership proposal from the Dutch Aids Fund, which had been proposed by Pride, Elsevier's Employee Resource group in Amsterdam. Aids Fund is a global player in the field of HIV/AIDS with over 100 years of expertise in reducing STIs in the Netherlands and 35 years in the international AIDS response. For the Foundation, "Ask Marlo" represents a new health, diversity and Asian regional focus, targeting youth with sexual and reproductive health information with the goal of stemming the HIV/AIDS epidemic in Indonesia. She noted that each year, 32,000 new HIV infections are registered in Indonesia, and more than half are people aged 15-24. Officially, sexual healthcare is forbidden for those who aren't married, or are below 21 years of age – and violence against LGBTQIA+ people has increased tremendously in recent years with only 26% of people with HIV receive lifesaving treatment. Ask Marlo works to ensure that young people and minority groups who are most vulnerable can easily access information, counseling and lifesaving care.

The project was co-developed in 2018 with UN AIDS and the community-based partner YKS in Indonesia. The Ask Marlo website provides demand-driven, flexible and interactive healthcare – with sex-positive information, tips, personal stories and an interactive chat bot to increase HIV knowledge. It provides a platform to refer young people to additional services such as a helpline and clinic. Aids Fund is seeking support to move from a concept stage to build a stepped care system that facilitates self-care by connecting users to the services they need. Domiziana announced that Board members will receive a link to vote after the Board meeting.

Nikunj Jinsi inquired about the intended impact and milestones of the project to gain a better sense of the Foundation's contributions. Keवonne asked how the organization planned to reach their target market digitally. Domiziana noted that the Ask Marlo project aims to scale up their marketing campaigns by targeting influencers to help share their message and build a larger community.

Jan Herzhoff commented that the project had very good objectives considering the size of Indonesia. He suggested that the Foundation could make even more of an impact by linking the partners with the Elsevier products team in Singapore. .

VI. EVOLVING THE RESEARCH4LIFE PARTNERSHIP

Ylann introduced Research4Life as one of the most compelling examples of how Elsevier and the Foundation have worked with partners to contribute content, data, analytics, expertise and funding to build a strong partnership. Elsevier's support of this public-private partnership spans nearly 20 years and includes collaboration with UN agencies, publishers, key universities and non-profits. Together, the Foundation and Elsevier have sought to help bridge the digital research divide for developing country researchers and healthcare workers by providing them with free and low-cost peer reviewed resources. Research4Life supports researchers, librarians, lecturers, policymakers, and clinicians around the world stimulating international collaboration, and ultimately, better research and decision-making in science and health.

Elsevier's support for Research4Life began with the WHO as one of 6 founding publisher partners in 2001. The commitment has quickly grown to 5 UN partners, nearly 200 publishers and 10,000 institutions in developing countries contributing a quarter of the 132,000 peer reviewed resources - encompassing databases such as Science Direct, Scopus, Clinical Key and most recently Embase -, and offering strategic, communications and technical expertise. Ylann is currently serving a 2-year term as the Chair of the Research4Life Executive Council and is a key member of the partnership's leadership team which includes Kimberly Parker. Domiziana chairs the R4L Comms & Marketing team.

The Elsevier Foundation has also played a key role in supporting capacity building for Research4Life, providing substantial funding to support training since 2008. This includes funds for the first FAO-led training MOOC and a decade of support for the Medical

Library Association's Librarians without Borders® program supporting 20 training grants for librarians and 90 training workshops in 42 countries.

Ylann introduced Kimberly, HINARI Program manager at the WHO who coordinates the health arm of Research4Life and serves as the driving force behind this unique public private partnership. Before joining the WHO in 2008, Kimberly worked for 18 years at the Yale University Library on science, medical, and electronic publishing issues of librarianship. Kimberly described her biggest challenge and reward in Research4Life as keeping a far-flung partnership dynamic as it enters its third decade of engagement as the world of scholarly publishing continues evolving at a rapid pace.

Kimberly highlighted that the current pandemic has reinforced the need for accurate information. R4L targeted countries regularly deal with issues which are not visible or prioritized by wealthier countries and while low- and high-income countries may deal with the same problems, lower income countries are often far more isolated in their solutions, consider vaccination rates. She underscored that now more than ever, R4L eligible countries needed the latest reliable information in order to conduct their own research and set their own policy.

VII. NEW INCLUSIVE HEALTH PARTNERHSIP: COUNTRY CONNECTORS

The proposed "Country Connectors" project will use local interventions to heighten awareness of R4L, strengthen capacity for information use and build communities of evidence-based users. It aims to be scalable, move way from outdated North-South training paradigms and offer a financially sustainable new training model. Over time, the project will transition experienced Country Connectors (CC) to an "emeritus" status where no funds would be invested, and compensation would be in kind (status of the appointment, first pick in online training opportunities, etc.). Country Connectors will initially work with two high usage countries, Tanzania and Kenya, and expand to an additional 5 countries at a later phase. High usage countries were selected for Phase 1 given their greater likelihood to quickly transition into mentoring countries – feeding into the South-South collaboration.

Kimberly noted that Elsevier Foundation support will allow support for project management, oversight, capacity development advice, mentoring, reporting, evaluation and impact assessment and engagement. She explained that the WHO had already assigned funds from its emergency work to support the first two months of the program.

Beverly noted that the International Council of Nurses is present in a number of R4L eligible countries and has relations with the WHO. She suggested that involving the ICN could lead to a naturally collaborative process. Kimberly agreed and clarified that an important feature of the project will be to create networking opportunities for the CCs.

Kumsal thanked Kimberly for her presentation, highlighting that R4L was one of her favorite programs. She asked several questions including:

- What does R4L want to achieve in terms of usage? Is there a metric that we which can be used not including absolute numbers?
- On a technical side, is there a way to improve accessibility of the platforms considering the improvements done during the pandemic? (e.g., Google authenticator etc.)
- When discussing with Elsevier detractors, mentions of R4L do not appear to yield positive returns. Is there a lack of awareness of R4L programs? And how can the Foundation/Elsevier help leverage the Partnership?

Kimberly suggested a follow up meeting with Kumsal to discuss these questions in detail. Yuko Harayama commented that these findings were not unique to developing countries and that she could see commonalities with her experience in Japan during the pandemic. She stressed the need to create a community of evidence-based users and share common learnings between developed and developing countries. .

VIII. EARLY-CAREER RESEARCHERS: KEY FINDINGS & PARTNERSHIP IDEAS

Ylann reminded the Board of the Foundation's initial focus on early career researchers. She noted that when YS launched the Foundation 15 years ago, he had spent time speaking with research leaders discussing the need to support early career women scientists and address the longstanding issue of the leaky pipeline or the loss of critical talent during family building years. For a decade within the Foundation, the team explored many different interventions supporting women scientists through their universities, professional associations and societies. These included boosting professional visibility through childcare support, high level working groups, dual career relocation services, work-life integration toolkits and much more. In 2016, the Foundation moved to a more partnership driven approach and shifted much of its funding to pilot technological interventions, STEM education and underserved youth.

Ylann shared the findings of the Elsevier 2020 Gender report which demonstrated that these issues were still prevalent. Among active authors during the period 2014–2018, the lowest ratio of women to men was observed in the physical sciences (i.e., physics, computer science, mathematics, engineering and energy). Covid has only exacerbated the pressures on women scientists.

Elsevier's 2020 study on Manuscript Submissions and Reviews in over 2329 Elsevier Journals, showed that during the first wave of the pandemic, women submitted proportionally fewer manuscripts than men. This was especially pronounced among younger women academics who were carrying a disproportionate burden of care for their families. Findings also suggest that the first wave of the pandemic has created potentially cumulative advantages for men. Moreover, the US National Academies of Science 2021 report asserts that the disruptions caused by the pandemic endanger the engagement, experience, and retention of women in academic STEM, and may roll back many of the achievement gains made by women in the academy to date. The report also highlights that structural racism is an omnipresent stressor for women of color, who already feel particularly isolated in many fields and disciplines. In other words, interventions to ensure equity for all women in STEM may not necessarily work if they do not account for intersectionality.

Ylann added that the pandemic's impact on women's careers goes beyond research. The President of the Institute for Women's Policy Research C Nicole Mason highlighted in an analysis of US labour department data that for the first time in history, the US is in a "she-cession" – or an economic downturn where job and income losses are affecting women much more than men. She stressed that Anno 2021 early career women scientists continue to be at high risk for attrition and we need integrated, intersectional and evidence-based efforts to continue advancing the careers of early career women scientists. Career Progression is also clear focus area highlighted by Elsevier's external Inclusion and Diversity Advisory Board.

Ylann recalled that Board members had urged the team to be targeted, intersectional and localized, but also to consider a special focus on Asian women scientists and boosting skills and visibility. The team had researched and strategized about what would constitute an impactful portfolio of projects to support career progression. Many of the discussions they had with potential partners and stakeholders in the US, UK, Germany, China, Japan, and Singapore yielded the following learnings:

- There is no "one size fits all" approach to addressing the challenges of early-career researchers in the different geographies explored.
- The Foundation needs to work with local partners to provide highly localized solutions for the issues at stake.
- Often, our greatest value in a specific location may be its networking and convening role – to bring stakeholders together to drive change.
- The team has also aimed to think creatively, working within partnerships when that makes sense, but also leveraging Elsevier's existing network, initiatives and infrastructure for others. A good model for this has been the Green & Sustainable Chemistry Challenge.

Ylann explained that the first two ECR proposals will showcase an Elsevier-embedded approach while the rest will focus on a partnership-driven model.

RISING BLACK SCIENTIST AWARDS

Domiziana introduced the Rising Black Scientist Award, noting that it was a proven concept launched in 2020 by Cell Press to tackle the gaps in support, funding and opportunities experienced by early-career Black scientists. Historically two awards are given out each year, to one undergraduate and one postdoc scholar in the life sciences: and the applicants are evaluated on their scientific potential as well as their powerful personal stories and motivation. However, for Black researchers, disparities are even greater in the physical sciences where they are represented at only half the rate compared to other fields.

Domiziana shared the Foundation's proposal to partner with Cell to expand the Rising Black Scientist Awards to include two physical sciences prizes of \$10,000 dollars each. The award offers monetary support to scientists early in their career and gives them an opportunity to publish in high impact journals such as Cell, Chem, Joule or Matter – all leading flagship journals offering broad visibility and reach. The new partnership will expand Cell's prize fund with an additional \$20,000 and access to the Foundation's experience and channels to grow the Awards' reach and impact and help build a strong network of early-career Black scientists.

AGENTS OF CHANGE AWARDS

Domiziana presented the proposal for the Agents of Change Award to be expanded in partnership with Elsevier's Materials Science journal which launched the Award in 2019. The 2020 Gender Report indicates that the proportion of female researchers in materials science is still very low, around 35%. With 5 large Materials Science conferences and 2300 editors across its journals, Elsevier is in a strong position to encourage diversity. The Awards celebrate initiatives that focus on inclusion and intersectionality within the community and the Foundation will expand its reach and visibility by providing \$15,000 dollars to support a second award. The Awards will be featured at the 2022 Materials Today conference in China, a new geographical region for the Foundation.

WOMEN SCIENTISTS WORKSHOPS IN CHINA

Ylann shared insights on gender inequities in research for Chinese women scientists drawn from a 2021 Times Higher Education article on a new science funding policy: women scientists receiving research funding has stagnated at 10% and women are only 5% of academic staff at the Chinese Academy of Sciences. China's Ministry of Science & Technology released a statement in August announcing a comprehensive plan to tackle gender inequity in academia with priority in research funding and senior appointments, removal of discriminatory age limits, and improved access to international research opportunities and speaking appointments.

After conferring with Prof Nieng Yan, the Elsevier I&D Advisory Board member and Princeton Professor as well as Elsevier colleagues in Beijing, the Foundation has proposed to contribute to these interventions through a series of pilot workshops supporting women scientists at Elsevier-hosted academic conferences in China. In 2022, these include Cell Symposia, the Energy Summit and a Materials Science conference. The workshops will be led by a professional moderator and help build skills in leadership, networking, speaking and academic writing skills, as well as insights on how to embed sex and gender in research

FALLING WALLS - FEMALE SCIENCE TALENT

Domiziana Ylann introduced another project in Germany with the Falling Walls Foundation, supporting a Women in Science talent program which focuses on helping women early career researchers position themselves to take on leadership positions in science, business and society. Falling Walls refers to the impact of the Berlin Wall coming down and the organization offers a unique international platform for leaders in science, business, politics, art and society, with an annual conference on November 9th, the day the wall came down in 1989.

The Falling Walls talent program offers a two-track approach with monthly 2-hour training sessions to help women to set their own leadership goals and work with trainers, senior role models and peers. The second, more intensive track selects 20 exceptional women and offers in depth mentoring to support career breakthroughs. Over the course of 3 years, the program aims to create a sustainable community of 200 talented women scientists who are tapped as young leaders, participants in their annual conference, discussion series and networks. Through these targeted trainings and workshops, the program leverages Falling Walls' international platforms, network and visibility and helps women scientists make the transition from science to industry.

Ylann noted that as a strategic partner, the Elsevier Foundation would provide funding and significant in-kind support by tapping its channels and Elsevier's internal and external network of talented women scientists for training, mentoring and more. She added that the Foundation would operate as part of a consortium of funders including the DFG (German Research Foundation) and the Bayer Foundation.

ASIAN SCIENTIST WOMEN IN STEM PROGRAM

The Asian Women Scientist's "Salon for Leadership in STEM" offers a 2-day intensive leadership workshop targeting women scientists based in Singapore to equip them with critical professional development skills and a deeper understanding of what it takes to navigate and succeed in the academic landscape. Modules include: creating a professional brand, interviewing, networking, securing funding, getting on the tenure track, soliciting media coverage, research ethics and commercialization.

The Program will be led by the Dr. Juliana Chan, CEO of Wildtype Media, and Editor of the Asian Scientist. Dr. Chan is an MIT alumna and the recipient of many Awards include the 2011 L'Oréal-UNESCO For Women in Science National Fellowship The program Juliana Chan is proposing is modelled on the successful MIT women in stem development program. The Salon will also be able to leverage the Asian Scientist's platform to build its visibility and reach. The Asian Scientist has asked for substantial funding, however the Foundation sees its role as an early adopter and seed funder.

UK BAME RESEARCHERS SUPPORT

Ylann also highlighted a potential UK partnership which would reflect the UK's strong focus on research culture or the behaviors, values, expectations and norms of research communities which influence researchers' careers and determine how research is conducted and communicated. Since 2018, a series of reports from the Royal Society, LERU (the league of European research universities), and the Wellcome Trust have sought to examine and evolve our understanding of how to create an equitable research culture. UK stakeholders urged the Elsevier Foundation to focus on the attrition of talent among black scientists. Based on this feedback, Ylann proposed

creating a partnership with Vitae, a UK non-profit supporting early-career researchers. Together they would serve in a convening role by bringing together black researchers and university grant recipients tackling intersectional issues to develop an evaluation framework and tool and curate a best practice hub. The proposal is still in a concept phase and will be developed further with the Board's support.

ECR PROJECTS IN JAPAN

Yuko Harayama shared reflections on potential ways to support early career women scientists in Japan by partnering with Riken, Japan's largest research institution. In order to increase the number of female researchers and evolve new leadership styles, Yuko recommended capturing valuable learnings from senior colleagues. She proposed to interview female PIs, focusing on how they acquired leadership and lab management skills, while overcoming challenges, including the establishment of management policies through experiential learning and the process of trial and error. These will be summarized as oral histories. By formalizing and disseminating the experience accumulated by female PIs as tacit knowledge, the Foundation can help to create clear role models and accelerate the development of female researchers aiming for leadership positions.

Yuko proposed a second idea to develop a Japanese language e-learning course for research institutes and academia to deepen their understanding of Unconscious Bias and help make strides towards eliminating the gender gap in science and technology in Japan. She explained that while seminars and training courses for deepening understanding of and addressing Unconscious Bias are beginning to appear mainly in the Japanese private sector, they are still only available in English and inadequate compared to those in Europe and the US.

IX. EARLY-CAREER RESEARCHERS: KEY FINDINGS & PARTNERSHIP IDEAS

YS Chi invited the Board members to reflect on the overview that the team provided and opened the floor for discussion. Beverly inquired about the kind and level of support that the ECR projects portfolio aimed to provide early career researchers, considering that financial support for these projects will be quite modest. Ylann responded that the team contributed both financial and in-kind support and the projects will centre around the partnerships and capacity building initiatives.

Geri Richmond expressed her enthusiasm regarding the ECR portfolio, especially noting its global nature. She stressed that it was important to recognize that in the UK, the marginalization of minority students was largely due to economic factors. She suggested that the project could deliver a series of recommendations on this. Geri said that it was also important to establish metrics to measure the researchers' ability to have wage raises, promotions and create accountability for institutional leadership for the projects in Japan. Yuko thanked Geri and noted that while basic metrics exist, additional ones will be implemented and published in 2021 internally.

Nikunj commented that the portfolio was great conceptually but reiterated his concern regarding the potential outcomes and accountability vis-à-vis the relatively small amounts to be contributed. He inquired whether the Foundation was more inclined to support partnerships with more direct outcomes and whether other resources will be available to the partnerships.

Beverly congratulated the team on the breath of the issues addressed throughout the portfolio. She noted that the workshops will be helpful to ECRs and added that the targeted groups will need additional mentorship which will need to extend beyond the workshops.

Kumsal expressed her interest in the portfolio's global approach. She noted that the Foundation can run experiments, measure outcomes and see which projects are most effective. She added that financial contributions are not what make the greatest difference, comparably to in-kind contributions. For instance, promoting researchers through Cell can be a life changing experience for them and the Foundation can do more of that by leveraging Elsevier's journals. She added that the biggest resources that can be leveraged is the thousands of Elsevier employees, which work to improve I&D at Elsevier – which will, in turn, enable Elsevier and the EF to support the professional development for women in science. She highlighted that a thousand little things can help move the needle. Kumsal further emphasized the need to hold the Board accountable to the resources available, both employees and products. YS agreed with Kumsal's comments.

Marcia shared her appreciation for the portfolio approach and people power that made it all happen. She echoed Kumsal's argument that a thousand smaller projects can help move the needle. She added that RELX could offer support to promote the researchers' journey through interviews with workshops attendees to create inspirational and motivational stories.

Yuko commented that her expectations from the Foundation were more centred around its in-kind contributions. She used the example of the oral histories project in Japan as an example of this, highlighting how in-kind contributions can help produce attractive case studies around the project.

YS highlighted that the problem tackled by the portfolio was relatively grand and that the Foundation's contributions were one drop in the ocean. He underscored that this did not abdicate the Foundation from participating however. YS stressed that if money was preventing the Foundation from making progress in this area, it would need to do other things at an Elsevier level to raise awareness

around the issue to funders by helping to tell stories and create allyships. YS added that if Japan and Germany were considered to be the least conducive women scientists, we should start with these geographies. YS echoed comments around the use of in-kind resources and how to best leverage these. He shared a previous example from the Foundation's former grants program, arguing that small pilots can help make a difference (i.e., childcare support for women scientists in conferences).

Beverly said that it might be better for the Foundation not to spread itself too thin and first identify priorities which would allow the Foundation to add two projects per year and examine the outcomes of each project to be more effective.

Kumsal highlighted the important of allyship, noting her interest in Yuko's approach for the ECR project in Japan. She inquired whether the Foundation could experiment with including non-targeted communities in China and the U.K., in order to mobilize a larger group and not only underrepresented groups who bear an additional burden to solve problems that are already affecting them. Kumsal suggested sharing Elsevier's employee resource groups' approach to allyship.

Jan highlighted that real impact can be achieved by connecting the dots and learning from each other and stressed the need to leverage and scale knowledge sharing. He inquired if the Foundation could connect all of these workshops – with each event empowering/leveraging the other.

X. CLOSING REMARKS

Geri Richmond announced that she was awaiting confirmation for her new role within the US Department of Energy and, if confirmed, would need to step down from the Board. YS thanked Geri for her contributions and announced that when she gets accepted, the Board will dedicate time in the upcoming Board meeting for a send-off. Kumsal thanked the Board for their time and insights. She emphasized, on behalf of Elsevier, that she will continue to look for meaningful ways to support the Foundation whether in the form of expertise, communications, networks, funding or analytics.

YS thanked Kumsal and underscored his appreciation for the Board's collaboration in these complex times. He thanked Board members for sharing their expertise and insights. YS noted that the team will be in touch in the coming weeks to ask Board members to vote on several proposals and to identify dates for the April 2022 Board meeting.

April 9, 2021 — Video conference

ATTENDING

External Board Members

Yuko Harayama *

Nikunj Jinsi

Beverly Malone

Emilie Marcus

Geraldine Richmond

The Elsevier Foundation Team

Ylann Schemm, Director

Domiziana Francescon, Partnerships Manager

Maha Rhannam, Coordinator

Maria Markova, Treasurer

Ken Thompson II, Legal Counsel

Ex Officio Board Members

Suzanne BeDell

Márcia Balisciano

Kumsal Bayazit

Youngsuk (YS) Chi

John Danaher

Esra Erkal

Elsevier Foundation Advisors

Kevonne Holloway

Mev Samarasinghe, VP Technical Fellow, Elsevier

**Due to time zones, Yuko Harayama met with YS Chi, Ylann Schemm and Domiziana Francescon in a separate Board Meeting on April 16th. These contributions have been identified and incorporated into these minutes.*

I. WELCOME

YS Chi YS Chi opened the floor and welcome everyone for the first 2021 Elsevier Foundation Board meeting. He outlined the objectives of the meeting, namely reviewing the existing programs and holding a strategic discussion about the way forward.

Kumsal welcomed everyone on behalf of Elsevier, emphasizing the important work of the Foundation during the Covid-19 pandemic. She also highlighted the work of Elsevier to support the communities it serves, including the design of a Covid-19 vaccine toolkit, to which many colleagues including John Danaher and his team have contributed to greatly.

Kumsal noted that Elsevier has also continued to progress its work around inclusion and diversity and has made good progress in terms of employee engagement. She added that the latter is the highest it has ever been in the history of Elsevier, arguing that the challenges of last year has actually everybody together as a stronger community. Kumsal shared that she had recently given a keynote address at the European Gender Summit around the Elsevier's I&D initiatives and commitments. Kumsal highlighted the important longstanding work of the Foundation in driving progress in gender equality in STEM, academia and research by taking first steps with organizations such as the Gender Summits, which can then be scaled across the organization (i.e. Elsevier). Kumsal thanked the Board members for their contributions and time.

II. ADMINISTRATIVE PROCEDURES

yS thanked Kumsal for her welcome address and shared the meeting agenda. He welcomed the Foundation's two Elsevier health advisors: Mev Samarasinghe, VP Technical Fellow and Kevonne Holloway, VP of Education Content. YS then asked the Board to ratify the 2021 Board Meeting minutes, which passed with a unanimous vote.

III. 2021 OVERVIEW

Ylann thanked YS. Prior to sharing the plans and progress of the last six months, Ylann highlighted the 2021 Elsevier Foundation Annual Report which was compiled from extensive partnership reports and analysis of the Foundation's progress over the past year. Each partnership has a 2-page synopsis covering the milestones, challenges, future plans as well as anecdotes, quotes and pictures. Ylann noted that the publicly shared version of the report does not include meeting minutes or the Foundation's in-depth financials.

IMPACT OF COVID ON PARTNERSHIPS

Ylann stressed the significant impact of the pandemic on the work of the Foundation and Foundation partners. The team moved all of the award ceremonies, events and overall engagements online to making them more accessible to a wider audience. Ylann added that they met frequently with partners and surveyed their needs to support them more effectively. She also highlighted that Foundation partners, like most non-profits, have faced significant challenges over the past year. Many have had to postpone or cancel events due to lockdowns, greatly reducing their engagement and fundraising opportunities as well as their ability to deliver programs and find new collaborators. Despite the many difficulties however, there has also been incredible resilience. Partners have been able to develop digital approaches to their programs successfully reinventing their engagement with target audiences. She added that some of the partners have also been able to proactively adapt to pandemic challenges by offering additional resources.

OWSD-ELSEVIER FOUNDATION AWARDS

Ylann shared highlights on the OWSD-Elsevier Foundation Women in Science Awards, putting great emphasis on the importance of the award in providing talented women scientists the essential recognition and visibility needed to progress in their careers. She noted that since 2013, 45 talented women scientists from 22 countries have won the award. The 2021 winners of this year's edition of the awards in Physical and Chemical Sciences were from Guatemala, Sri Lanka, Palestine, Mongolia and Ghana. She indicated that the 2021 OWSD-EF Awards ceremony was conducted online at the virtual AAAS conference and thanked Kumsal for sending a personal video message to congratulate the winners during the ceremony.

Nine alumni winners joined the OWSD award selection committee as reviewers for the 2021 awards, demonstrating the continuity and capacity building nature of the partnership between the Foundation and OWSD. Ylann announced that going forward, the latter organization planned to better integrate the winners into their network of more than 6,000 members as mentors and advisors, and playing a key role in supporting OWSD national chapter members, PhD and early career fellows.

Ylann has also noted the Foundation team had stepped up its collaboration with colleagues in the Global Communications department at Elsevier to promote the awards program and extend its reach and engagement. with a total engagement of 33,000 interactions from both the Elsevier and Elsevier Foundation channels. Maha Rhannam clarified that the teams had packaged content around the awards including EC interviews with the winners, 1-min short videos on each of the winners, a visual story telling piece celebrating our winners over the years, all of which were repurposed in the weeks following the awards for the International Day of Women and Girls in Science, International Day of Mathematics and International Women's Day. The best performing posts featured the Palestinian and Guatemalan awardees and were frequently mentioned by Guatemalan media and blogs, representing around 30% of total mentions during the February-March time period. Past winners continued to be strong advocates, sharing the news about the awards with their networks, feeding into the OWSD-EF women scientist community. Ylann notes that the Foundation team had also launched an internal monthly webinar series to share their partnerships with employees.

GIRLS INC. OF NYC

Ylann clarified that the team had also featured Girls Inc NYC in their first internal monthly webinar series in January. She thanked Suzanne for helping to interview CEO Pam Maraldo and VP of Program Management, April Williams, for the first webinar of the monthly series. She noted that the Foundation had been supporting Girls Inc NYC for the past three years to deliver data analytics programs through a social justice lens for 13-16 years old girls from underserved neighborhoods in NYC.

Ylann revealed that the pandemic has forced GINNYC to make an abrupt move to online classes last March. The Pre-G3 data analytics program has nevertheless easily adapted to a virtual learning environment and the organization was able to continue offering classes to nearly 150 middle school girls without any disruption. She added that GINNYC has managed over the past year to effectively embed data analytics as a key component in many of their programs Ylann noted that the girls in the Pre-G3 program had unsurprisingly experienced mental health issues related to Covid. For these reasons, GINNYC has incorporated activities from their mental health curriculum to help with coping skills and strategies. Ylann commented that the proof of success lies in the growing demand for the program. GINNYC had been contacted by over twelve schools this year to implement their program. In response, Girls Inc set up the Fast-Track Teacher Training Institute to ensure that teachers have the knowledge, skills and attitudes they need to effectively reach girls.

Yuko Harayama* applauded the work of Girls Inc in the context of Covid-19, noting that it was important to teach data analytics for the future of these girls, as a significant capacity building initiative to prepare them for the coming years – whilst also focusing on important issues like reducing inequalities. Yuko added that the shift to remote/virtual learning can greater accessibility and quick scale

up to develop a a worldwide reach. to different countries or formats. She encouraged the Foundation to explore ways of expanding the reach to other countries and supporting different combinations of learning environments/events, using hybrid models or virtual/remote ones. .

RACE & ETHNICITY PORTFOLIO

Ylann reminded the Board that she and Kevonne Holloway had presented a new portfolio of partnerships addressing inequities in race and ethnicity and shared a brief update.

Black Girls Code aims to grow the number of women of color working in technology by providing coding classes, hackathons, workshops and summer camps to girls from underrepresented minorities. Their goal is to train 1 million girls by 2040. Using the 1 year, renewable \$25,000 grant of the Foundation, they have set up a new Summer Code Club in Philadelphia which will be launched this summer. As Elsevier has a strong tech hub in Philly, the Foundation team also plans to involve colleagues as coaches and teachers in this program.

Philadelphia’s Black Women’s Health Alliance, a grassroots nonprofit focused on improving health care outcomes and reducing health disparities for African American women through advocacy, education, research and support services, will be using their one year, renewable \$25,000 grant to support The Millennial Sister Circle (MSC) which will launch in May 2021. The MSC will offer young Black women (ages 20-39) a space to increase their knowledge of how to tackle health disparities at their roots to improve and maintain their health and wellness. They will recruit about 50 women to take part in 2 series of 4-part workshops. It will build off of the success of the prime-time sisters circle which has targeted women from 40-70 over the last few years. The goal is to embed both programs into medical referral and treatment services to scale up the impact in Philadelphia. Here too, the Foundation will recruit Elsevier colleagues in Philadelphia to serve as champions for this partnership.

Kevonne Holloway went on to share some of the milestones of the Julius L. Chambers Biomedical Biotechnology Research Institute (BBRI) program, as well as the Historically Black Colleges and Universities Schools of Nursing Scholarship Fund, both supported by the Foundation. Kevonne introduced the work of the BBRI, based at North Carolina Central University, an HBCU, and Kevonne’s alma mater. The institute conducts multidisciplinary research focused on health issues that disproportionately affect minority and underserved populations. The partnership focuses on facilitating the rapid adoption of evidence-based interventions to address health disparities in minority and underserved communities.

In 2020, the BBRI team, led by Director Dr. Deepak Kumar, was able to map out the existing health and economics disparities exacerbated by the pandemic and design equitable interventions: they administered PCR tests, and promoted the culture of testing through advocacy campaigns targeted at the local communities. The strength of this project lies in the deep links that NCCU were able to establish with communities in neighboring counties. At the moment, BBRI is collaborating with community healthcare providers to effectively deliver Covid-19 vaccination information. It is also delivering data to support the North Carolina Department of Health and Human Services to make informed decisions for the equitable distribution of vaccines across the State. Dr. Kumar will use a part of the partnership budget to establish implementation science research grants for his team, with the goal of further developing and expanding community infrastructure to foster increased community resilience. Kevonne added that it was a pleasure to interview Dr. Kumar for an internal webinar organized by the Elsevier Foundation team and offered a great opportunity to share this important work and ensure that colleagues of how Elsevier is supporting work that tackles health disparities.

Kevonne concluded with the nursing scholarships fund, which provides each of the five HBCU Schools of Nursing participating in the National League of Nursing /Elsevier HBCU Excellence in Technology Innovation program, with a \$10,000 scholarship fund for nursing students. She noted that during 2020, she and the Foundation team had met with the Deans of each Nursing School, who shared how Covid-19 is impacting their staff and their students. They then shared resources such as the Vaccine Toolkit and an ICU Training for Nurses, which contain up-to-date medical information on COVID-19, approved treatments and guidelines, and other useful tools to help doctors, nurses and staff provide care. In addition, the team has also are exploring the possibility of holding a panel discussion on the nursing shortage, the lack of diversity in the nursing workforce and rising health disparities in underserved communities with the NLN and the nursing school deans.

Yuko* applauded the work of the new portfolio. Considering the new trends of anti-science and anti-vaccine movements, it is now more important than ever to support earlier grassroot actions to promote scientific literacy and the power of science to address health issues on a community basis.

IV. CHEMISTRY FOR CLIMATE ACTION CHALLENGE

Domiziana Francescon shared some insights on the Green & Sustainable Chemistry Challenge, noting that in 2020, 318 proposals were received from 69 countries, and that the top 5 finalists had pitched their projects at the virtual Elsevier Green & Sustainable Chemistry Conference in November 2020. She highlighted the two winners of this edition:

- First prize winner: Dr. Diana Carolina Parada Quinayá, from Colombia, for her “Use of cocoa waste for green composites production in Pangoa” project which turns discarded cocoa pods and pineapple leaves into low-cost raw material for the furniture industry, helping to reduce deforestation consumes more than 140,000 hectares of the Peruvian Amazon a year.
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- Second prize winner: Clifford Okoth Owino, from Kenya, for his project “Ecofuel/Chemolex” that uses innovative advanced bio-conversion technology to produce affordable multi-purpose biofuel from the invasive water hyacinth plant that forms a dense mat on the surface of Lake Victoria.

When the Challenge and Conference were postponed from May to November, the Foundation team remained in close contact with the shortlisted participants, ensuring a steady flow of communication and coaching sessions. The new virtual nature of the Conference required the team to adapt the finalists’ pitching session and the award ceremony to fit the new format. She highlighted that while the virtual event was successful, critical elements such as networking and visibility could not easily be replicated.

Domiziana announced that after 5 editions of the Elsevier Foundation Green & Sustainable Chemistry Challenge, and thousands of proposals to support research playing a key role in facing one of the world’s most important issues, climate change, whilst highlighting the critical role that chemistry plays in developing a sustainable future. She specified that the Challenge will be looking at supporting target 13.b in particular to “[...] promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities”.

Domiziana stressed that over the years the Challenge had shown an excellent outreach in low-income countries and many winning projects that made a difference for local communities. With the new focus on Climate Action, the Challenge would recognize the pivotal role that women can play in combating climate change, adapting to climate shifts and participate in policymaking.

V. UPDATE FROM THE MSF/EPICENTRE PARTNERSHIP

Esra Erkal introduced the longstanding Elsevier Foundation partnership with Epicentre, MSF’s research arm with centers in Paris, Uganda and Niger. Founded in 2017, the supports the capacity building of Epicentre Niger’s medical and scientific staff, reinforcing their ties to the local and West African stakeholders to guarantee an effective and rapid response to health crises.

Esra noted that over the years, the Foundation has conducted a great deal of joint engagement at global health conferences tackling issues which are close to both Epicentre and Elsevier such as global health, vaccines, multilingual publishing and much more. She highlighted the Epicentre and the Foundation weeklong bilingual French and English workshop on Science Communications organized in February for Epicentre researchers and stakeholders. The workshops covered a range of topics from writing a scientific paper to working with journalists to public speaking and social media engagement, and were able to tap speakers from across Elsevier’s networks including Elsevier publishers, OWSD award winners and many more.

Esra introduced then Dr. Rebecca Grais, Director of Research at Epicentre who has a strong focus on infectious disease, epidemiological studies of the effectiveness of public health interventions and novel vaccines in conflict and epidemic settings, and Professor Yap Boom serving as Epicentre’s regional Africa representative based in Cameroon where he teaches public health and microbiology.

Rebecca Grais shared her appreciation for the support of the Elsevier Foundation in advancing the professional development of Epicentre’s medical and scientific staff. She noted that key Epicentre staff members were able to benefit from additional opportunities for professional and educational development outside of Niger.

Rebecca also noted that the support of the Foundation has also allowed their organization to continue technical upgrading to ensure that the staff was equipped with appropriate tools. The latter was done through the digitalization of clinical trial and project management tools, allowing for the development of individual skills within the staff. She added that Epicentre was also able to strengthen relationships with local authorities, as evidenced by the participation of many Epicentre staff in medical and science forums, facilitated through these networks.

Rebecca shared some insights on the 2020 Scientific Day organized by Epicentre, held in Niger on January 21, 2020 – which was attended by John McConnell, Editor of Lancet Infectious Diseases and the Foundation team. The event brought together international and local experts, key stakeholders, and representatives from local authorities, in an interactive discussion on key medical and public health policy challenges for Niger and the Sahel. She noted that the event’s objective was to provide updates on state-of-the-art medical research, public health debates, as well as to give participants networking opportunities. Rebecca argued that this event has allowed for Epicentre to better position itself in Niger.

Rebecca also showed that the support of the Foundation allowed Epicentre to become a part of African Academy of Science’s DELTA program (Developing Excellence in Leadership, Training and Science Africa). The aim of DELTA is to produce world-class scientific research to address African health and research priorities; support the training of scientists and help them develop their careers; nurture mentorship, leadership and equitable collaboration in science, and engagement with public and policy stakeholders and cultivate professional environments to manage and support scientific research. Rebecca underscored that Epicentre’s participation in

DELTA was directly linked to their support from the Foundation, and hopes that it will help them ensure many more years of additional support for Epicentre Niger. On the role of gender and science, Rebecca shared that Epicentre had been struggling given their predominantly male staff. She noted that through the networking offered by the Foundation, they will now start a first Organization for Women in Science the Developing World (OWSD) Chapter in Niger. She also stressed that they have been working to ensure that their female researchers were involved in networking providing support for women globally in public health, and hope to have another cohort to build upon this progress in the coming year.

Yap Boum thanked Rebecca and Esra. Yap highlighted the impact of the workshop on effective communication in science. The workshop convened more than 100 scientists from different countries across Africa, including Cameroon, Niger, Uganda and others. Yap stressed the bilingual nature of the workshop and the importance of tackling the issue of multilingualism and access to medical and health research and ensuring that no one is left behind because of language.

Esra asked the Epicentre team if they could provide more information on their perspective on the impact of Covid-19 in less developed countries like Niger. Rebecca highlighted that from their staff's perspective, the Covid-19 pandemic had demonstrated the importance of having investments in research in Sub-Saharan Africa (SSA), and had enabled them to rapidly upgrade their technological infrastructure for both individuals and the organization as a whole. Considering the many dire public health and medical issues that Niger faces, Covid represents only a very small component of the diseases causing severe illness and death. Rebecca noted that this further demonstrates the different global power structures and funding priorities at play. Yap added that the pandemic has allowed for increased discussions on health and research at high levels in their countries and hopes that they will be able to take advantage of this momentum to invest further in health research.

Marcia thanked Rebecca and Yap for their presentation. She inquired whether the team could see that there was an increasing share of women clinical practitioners and researchers in SSA. Rebecca responded that every location was different. In Niger for instance, Rebecca noted that it was still challenging to ensure that women are in positions of responsibility within clinical care, beyond nursing and caregiving. She added that Epicentre also hosts students for the last year of medical school, and that they prioritized placements for female medical students to offer this additional mentorship, support and training.

Beverly Malone thanked Rebecca and Yap for their presentation. She asked the team if they could share more insights on the top health priority issues in Niger as the team had mentioned that Covid-19 was not the primary issue. Rebecca indicated that the biggest killers in the Sahel region were indeed not Covid-19, but rather Malaria, Meningitis and other vaccine preventable diseases. Meningitis has a fatality rate of about 30%, constituting a major public health issue in the region, in addition to the 300,000 cases of Malaria per year, leading to 50-60,000 deaths per year, mainly amongst children under 5. Rebecca stressed that Niger was periodically ranked as one of the poorest or second poorest country in the world, qualifying for 100% international debt relief.

Beverly noted that Covid-19 was a significant issue in the U.S. last year, and inquired whether Covid could rage through areas that were under resourced or with vulnerable populations. Rebecca responded that there were about 5,000 cases reported of Covid. She highlighted that it was important to consider the country demographics to have a better understanding: 30% of the population are under age 18. Covid-19 surveys conducted in the southern borders of Niger with Nigeria showed that 80% of healthcare staff were found positive for Covid. However, considering that their average age of 32, the virus had a much less severe impact compared to other diseases affecting the region. In other words, the pandemic did not have a direct impact on the population in terms of mortality, but rather in terms of its secondary adverse impacts on routine immunization, malaria treatment and prevention programs given travel restrictions.

Esra inquired whether there was anything more or different that we could do to support the organization. Rebecca stressed how appreciative the Epicentre team was for the Foundation's support and the networking it has enabled, noting that it was a rare and precious support that very few organizations were able to provide. She further emphasized that "in terms of what the Foundation could do better", it should just continue providing both in kind and funding support — a powerful and effective combination.

VI. PRESENTATION OF AMREF DATA PROJECT

Ylann shared insights on another longstanding partner of the Foundation, Amref. She noted that the Foundation has supported a portfolio of Amref projects since 2016, including JIBU, the nursing app for continuing education; Innovate for Life, the health tech accelerator and now; Leap a learning solution for training health care workers through their mobile devices. Ylann clarified that as a major African-driven health NGO, Amref was well-positioned to develop data analytics services. The organization operates between local communities and healthcare systems and develops proprietary tools (such as Leap) that facilitate data gathering. She noted that the Foundation's Health Advisor Mev Samarasinghe, VP Technology at Elsevier, has been working closely with the Amref team to assist Amref with its data journey evolving beyond simple monitoring and evaluation to using data for predictive analytics. This is a new, significant, but also labor-intensive in-kind contribution from Elsevier to an Elsevier Foundation partnership.

Yuko* shared her interest and appreciation for the work of the Foundation, highlighting the importance of investing in capacity building and training work for individuals working in the field.

Mev Samarasinghe introduced himself and shared that a number of his colleagues, including senior data scientist Will Dowling, had also supported him on the Amref's Leap data. Mev presented Amref's Leap app, a mobile learning solution used to train 70,000 community health care workers in SSA, mainly in Kenya but now rolling in Ethiopia. He noted that Leap was based on a well-designed health pedagogy, delivering material in the forms of quizzes, practicums and learning interactions. During the process, the system acquired a great deal of data, including 6.4 million texts and supported 1.6 million automated voice interactions (designed to help care workers) in 2020. Mev highlighted the opportunity Amref has to analyze this data, extract insights and improve product and health outcomes. Amref has shared three main objectives in this project: to improve the learner knowledge, patient outcomes and attract donor funding.

After numerous conversations with the EF team, it became clear that Elsevier's expertise in data science could help Amref make progress towards these goals. Mev has shared that he had then connected with Amref's product and technology teams to gain a better understanding of the key questions they are trying to answer. By analyzing the raw data provided, Mev was able to clarify that, at least initially, about 70-80% of work would be in data cleansing, or identifying gaps and clearly scoping a technical problem to be solved. Currently only a small percentage of the efforts would actually be able to focus on modeling, developing an algorithm and generating insights. While Mev's team has completed phase 1 by providing gaps and scoping the problem, the Amref team had yet to finalize phase 1 using the insights generated by Mev and his team. Based on the work of the last two months, Mev shared two recommendations:

- Phase 2: Specific actions to prepare data for modeling through data cleansing and by connecting all of these different data sources using a unique identifier to identify a particular health care worker across their journey in using Leap.
- Quantify learning metrics such as "learning performance" and "learning behaviors".

Mev concluded that the data can be used to improve learner knowledge, but that it was insufficient to assess health outcomes, given that the app does not capture clinical data from clinical workers working directly with the patient. He noted that recommendations and conclusions were shared with the Amref team to follow up on with clinics and clinical care providers.

Mev noted that Phase 2 of data analysis and insight generation remained to be completed, and in terms of next steps, Elsevier could either continue providing in support or hand-off the project to DataKind, another Elsevier Foundation partner active in data science. He added that if Elsevier decides to continue providing in kind support, we would need to consider the substantial time investment needed.

Nikunj thanked Mev for his presentation, noting the progress made since the last Board meeting. He asked Mev if he could provide more information on the feedback loop, and whether a move to a smartphone app could allow for a more sophisticated approach. Mev indicated that the data collected was the data needed to draw insights from, capturing all of the user interactions in the app. Nikunj commented that the data project did not allow for field testing on the basis of which the team could modify the app, and that this could be a long-term outcome. Mev agreed, noting that the first phase focused on data cleansing and that the data lacked unique identifiers connecting all of the data captured from the different uses of the app. He added that the team was now providing specific recommendations to get the data ready to move on to the long-term outcomes described by Nikunj. Mev stressed that his team's work was agnostic of the type of device used by the users. He noted that while there may be significant portions of the populations in Kenya and Ethiopia still using old non-smartphone types, these factors were not considered for the purposes of this project.

Kumsal inquired about the resources needed to be to conduct Phase 2, especially in the absence of sufficient data. Mev noted that the app actually captures good data and that it was well-designed in terms of its pedagogy and learning material. He added that providing support for this project would not be a large investment, but still constitutes an investment as they would not be able to complete phase 2 with volunteers only, and would require full-time months-long effort.

Kumsal inquired how many resources would be needed to complete the project. Mev responded that the project would need not more than two data scientists to work for less than 12 months, noting that this contribution would provide great support in connecting the dots and improving learning efficiency at the app level.

VII. NEW PARTNERSHIPS PROPOSALS

TWAS GRANTS ON GENDER EQUALITY AND CLIMATE ACTION

Ylann recapped that the Foundation has had a 3-year partnership with TWAS (2016-2019) on bridging the sustainability science divide and boosting contributions from developing country scientists through scholarships, visiting expert grants and case study competitions. The new TWAS proposal would provide research grants to address concrete problems in climate change through collaboration and interdisciplinary research. The proposal is designed to offer 5 research grants a year supporting SDG5 and SDG13 with collaborative teams of 3-5 women scientists from developing countries. The projects which receive ca \$8-9,000 a year will tackle concrete problems in the community, whilst focusing on deepening both scientific and soft skills such as project management and leadership. Ylann noted that they received excellent feedback on earlier iterations of the proposal from Geraldine Richmond and senior research colleagues at

Elsevier. Yuko shared her support for this proposal, noting that it addresses several important issues, e.g. climate change and societal actions, as well as taking into consideration the incubator role of foundations in helping to shape programs and testing them on the ground.

GENDERINSITE PROJECT

Ylann presented the GenderInSITE proposal, another longstanding partner of the Elsevier Foundation which had provided both in kind support and joint engagement since its launch in 2013. As a UNESCO organization, it is closely affiliated with TWAS and OWSD and have a 2-pronged focus—to advance women in science and demonstrate how applying a gender lens can lead to more sustainable development outcomes. She shared that GIS had requested one year funding to finalize strategic projects, planning and fundraising for the future.

Yuko* noted that it was important to ask the GenderInSITE team about how they will plan strategically for the transition of the project to new funding. Ylann agreed and highlighted that she had communicated this concern around sustainability to Roseanne Diab, Director of GenderInSITE. YS* emphasized that it was important to consider that the Foundation does not operate as a philanthropic organization, but one that really aims to be impactful. He questioned whether the proposal was the right fit.

EARLY CAREER RESEARCHERS PROGRAM

Ylann shared insights on a new proposal targeted at early career women researchers, highlighting the pervasive “leaky pipeline” revealed by Elsevier’s 2020 gender report. She stressed that early career women scientists continue to be at high risk for attrition and emphasized the need for more integrated, evidence-based efforts to advance the careers of early career women scientists. Ylann added that in most countries, the ratio of women to men among authors was lowest in the physical sciences and highest in the life, health, and biomedical sciences; and within the physical sciences, the ration was lowest in computer science, mathematics, energy and engineering. The proposed program could for focus on these disciplines to address the ‘leaky pipeline’.

Ylann emphasized that, in shaping the proposal, they would be able to tap in the expertise and ideas from Board members and from the Elsevier I&D Advisory Board, as well as Elsevier’s research expertise and internal Gender Equity taskforce, to shape the program’s parameters. In addition, the Foundation team will also be able to build on its past track record with the New Scholars program which ran from 2006-2015, providing proof of concept seed funding to level the academic playing field for women scientists. She invited Board members to share their preliminary feedback on the proposal during this meeting and clarified that the team would develop a full proposal for them to review in two months’ time. She concluded that if Board members see it as a good fit they would launch the call for proposals in Q4 2021, with funding for the program required in 2022.

Yuko* noted that supporting women early career researchers was a priority for her. She highlighted nonetheless that considering that there are many national and international programs supporting this endeavor, it was important to find what specific added value we can have in supporting early career women scientists. YS echoed Yuko’s argument, noting that all funding agencies were now paying attention to early career women as the way to address the leaky pipeline for women scientists. He added that the program could look at supporting either specific geographies or disciplines. Yuko concurred that while female ratios are increasing, they are still quite minor. She underscored that it is also important to support solidarity among women scientists to increase inclusion. YS* agreed and shared that the Gender report data could inform the scope of the program, by highlighting the fields of scientific research that have a particularly low representation of women, such as molecular biology, computer science etc. YS and Yuko both agreed that it was also important to tackle this issue earlier on in the careers of women researchers, noting the progresses that can be made for instance when providing spaces for high school female students to interact with researchers.

VIII. BOARD DISCUSSION

Nikunj asked Ylann if she could provide more information on the processes within the ECR proposal, the type of partnerships it would support, as well as the concept of the ‘leaky pipeline’ is. Ylann explained that the “leaky pipeline” is a common term used to characterize the underrepresentation of women in STEM throughout the academic career paths of scientists and researchers: from high school to bachelor, master’s, PhD, postdoc, assistant professor to full professor. She highlighted that targeted interventions aimed at early phases were found to make a real difference. The reason for recommending a call for grants is to bring in fresh ideas, considering that the Foundation has a limited set of partners and the lack of active networking during the pandemic.

Suzanne expressed interest in the ECR proposal, using a data-centered approach and the opportunities it offered to bring people together to make the program even more impactful. She asked how the Foundation planned to secure resources. Ylann clarified that the first step would be to shape all of the parameters of the proposal, tap the expertise of the Foundation’s Board members and Elsevier’s I&D Advisory Board before coming back with a proposal.

YS agreed and stressed that considering the fundamentally large and continuous problem, it was important to establish new collaborations to provide new ideas and not repeating things that have been already done in this space. Emilie Marcus commented that this was a significant issue, and applauded efforts to focus on this issue and scope of it, while highlighting the challenge of being truly impactful and inspiring new ideas. Ylann responded that the former New Scholars program supported seed funding on projects such as child-care grants for professional visibility. She added, that since it ended in 2015, the NSF has gone on to cover childcare funding in research grants, arguing that the Foundation can play a significant role in early proof-of-concept funding.

Beverley applauded the initiative for the ECR proposal. She noted that the proposal should not overlook nursing education, despite the strides made by the National Institute of Nursing Education and the NIH. Beverly stressed that while nursing educators should teach based on evidence, not a lot of research is produced in nursing education – which tends to focus on practice and not pedagogy.

Emilie noted that whilst she understands the drive to look into areas where the problem is most acute (i.e. physical sciences), it can also be interesting to look at areas where there have been the most notable changes in the last years, examining rates of changes. Emilie suggested that the Foundation could run pilot experiments to look at where it can make a real difference. YS agreed that as a rule, it was important to look at the best ROI.

Márcia Balisciano echoed YS and Emilie and noted that it was important to look at the outcomes of the new projects, and that it is important to challenge ourselves and continually assess the expertise that Elsevier or other parts of the business might be able to provide for any of these projects. With regards to the gender data, Marcia added that gender distribution on patents was also quite striking, noting the contributions that could be made by LexisNexis in helping to tackle this issue.

Geri inquired whether the proposal considered postdoc and other faculty level researchers as target groups and would have a global or regional focus. YS responded that there were no set parameters at this point. Ylann clarified further that the team had scoped out the program to be centered around Europe, the U.S. and Asia as they have had a strong focus with the awards on developing country regions, and wanted to offer more geographic balance. YS highlighted Ylann’s expertise on this topic, stressing that the situation in Asia was far worse as no funds are made available to tackle the gender imbalance and inequity in this context. Geri agreed that if the focus of the project was on the developing world, it would be critical to address this region in particular. She added however, that if the project was to be centered on the U.S., it would be important to focus on underrepresented groups, including native Americans, African Americans, Latinx etc., considering that those women in the U.S. often come to school with debts, and are often unable to move on to graduate school. , She also agreed that the Asian region would also be a good focus for the program, considering the stark gender in research distribution ratios, including in Vietnam, Malaysia, South Korea and Japan. She highlighted that it was important to drive further international exposure for female researchers, considering the many societal pressures hampering their professional career developments.

YS noted that all Board members agree that this issue is quite broad and complex. He argued however that it was important to see the U.S. and other European countries set some examples so that they can be followed by others, considering the leading positions of these geographies. Geri reiterated that if it was deemed necessary to invest more funds in the US and Europe than the focus should be on underserved groups.

Kumsall voiced her frustration at the pervasive inequities highlighted in the findings of the gender report. She noted that Elsevier was now working on providing gender data and report for a case study with the Portuguese government, which has shown that even when a country approaches parity at the researcher level, there is still much work to be done to advance equity in science and research, by tackling career progression, research processes and the ecosystem itself.

Kumsal inquired about the GenderInSITE project and whether the team and Board members thought that there was a future for the organization to bridge funding for more than a year. Ylann noted that the organization has had substantial funding from Swedish Development Agency but that they were required to wait one year before applying for additional funding. Geri noted that she has known Roseanne Diab for many years, and that she has full confidence in her ability to pull off this project.

IX. CONCLUDING REMARKS

YS thanked everyone for joining and participating in the meeting. Kumsal thanked the Foundation team for the genuine impact and efforts to mobilize Elsevier’s resources to tackle important these issues.

YS also thanked Suzanne for her substantial contributions to the Foundation and Elsevier as this was her last meeting as a Board member given her retirement in June. YS announced that the survey to vote on the new proposals will be shared by email with Board members and invited everyone to vote,, and concluded the meeting. YS concluded the meeting by wishing everyone continued good health and urging everyone to get vaccinated.

X. Board biographies



Joyeeta Gupta
Full Professor
Environment and
Development in
the Global South
 University of
 Amsterdam

Joyeeta Gupta is full professor of environment and development in the global south at the Amsterdam Institute for Social Science Research of the University of Amsterdam and IHE Delft Institute for Water Education. She is also the Faculty Professor on Sustainability (2019-2024) and leads the programme group on Governance and Inclusive Development, managing 10 permanent faculty members, 3-4 post-docs and approximately 60 PhD candidates. Finally, she is also the Co-Convener of the University's Centre for Sustainable Development Studies, for which she coordinates and leads all related activities, including the recent and successful third annual (virtual) conference - which saw over 1900 registrations and participants from over 30 countries. Joyeeta Gupta is co-chair of UNEP's Global Environment Outlook-6 (2016-2019), published by Cambridge University Press, which was presented to governments participating in the United Nations Environment Assembly in 2019, and was covered in newspapers worldwide. It has just won the Association of American Publishers PROSE award for Environmental Science. She has also been named as co-chair of the Earth Commission (2019-2021), set up by Future Earth and supported by the Global Challenges Foundation, together with Johan Rockström and Dahe Qin.



Yuko Harayama
(Former)
Executive Director
International
Affairs
 RIKEN

Dr. Yuko Harayama was an Executive Director in charge of international affairs, the promotion of early career researchers and diversity at RIKEN, Japan's largest research organization for basic and applied science. Prior to joining RIKEN in 2020, Dr. Harayama spent 5 years at the Cabinet Office of Japan serving as an 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
(Former) Global
Head
Venture Capital
 International
 Finance
 Corporation

Nikunj Jinsi has over 20 years of venture capital investment experience in developing markets and advises several global finance institutions on developing their venture programs for emerging markets. In addition, Mr Jinsi is currently involved in founding multiple innovative investment platforms, each leveraging his unique investment background in developing markets. Until mid-2019, Mr. Jinsi spent 16 years with the International Finance Corporation (IFC) where he built the largest EM focused venture platform, in terms of footprint coverage, and headed a team of over 30 investment professionals in eight locations globally. He has held board positions in several leading technology companies in Emerging Markets and been involved in 12 investments that have gone on to be unicorns. Mr Jinsi is currently the founding Chairman of EMPEA's Venture Capital chapter. Prior to joining IFC in Washington DC, Mr. Jinsi spent nine years living and working in Asia. He was a Managing Director for one of Asia's leading venture funds. Earlier he spent four years in the Asian TMT investment banking industry providing M&A and corporate finance services to clients throughout the region. In addition, Mr Jinsi was the co-founder of South East Asia's largest independent marketing communications agency, which was successfully sold to the Omnicom Group. Mr. Jinsi started his career working as a Project Engineer/Manager at KPN, in The Hague, The Netherlands. Mr Jinsi, a Dutch national, has an MBA degree from Stanford University, which he attended as a Fulbright Scholar, and an MSc. degree in Electrical Engineering, from Delft University of Technology, The Netherlands.



Beverly Malone
CEO
 National League
 for Nursing

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, 2015 and 2021; and in 2016 she claimed 39th place amongst leading policymakers, activists, health care professionals and corporate figures in health care, insurance and pharmaceutical industries. She was elected to the Institute of Medicine and tapped to join the board of the Kaiser Family Foundation. She 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. She has worked as a surgical staff nurse, clinical nurse specialist, director of nursing and assistant administrator of nursing. In 1996, she was elected two terms 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 NLN, she was general secretary of the Royal College of Nursing, the UK largest professional union of nurses 2001-2007. She also served 2002-2006 as a member of the UK delegation to the World Health Assembly; the Commonwealth Nurses Federation; and the Higher Education Funding Council for England.



Emilie Marcus
Executive Strategy
Officer
David Geffen
School of
Medicine
 UCLA

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.

Ex-officio Board biographies



Márcia Balisciano
Global Head of ESG and Corporate Responsibility
RELX

Márcia Balisciano, MBE, Ph.D., is founding global head of ESG and corporate responsibility at RELX, a global provider of information-based analytics, decision tools and events with 33,000+ people and operations in 40 countries. Engaging colleagues throughout the business, she works to ensure RELX's extra-financial performance furthers competitive advantage and stakeholder confidence. She is Chair of the UN Global Compact Network UK and a Board member of the Foundation for the Global Compact; Chair of the Corporate Responsibility and Sustainability Council of the Conference Board; and a founding Board member of the Ban Ki-moon Centre for Global Citizens. She is founding director of London museum and educational facility Benjamin Franklin House and previously was special advisor to the American Chamber of Commerce (UK). 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 is a Member of the British Empire (MBE), an honour awarded by the Queen, and lives in London with her husband and two boys.



Kumsal Bayazit
CEO
Elsevier

As Chief Executive Officer, Kumsal Bayazit is a strong advocate of research and innovation, leading Elsevier's 8,600 people in their mission to help researchers and healthcare professionals advance science and improve health outcomes for the benefit of society. Kumsal joined Elsevier as CEO in February 2019 from Elsevier's parent company, RELX, an R&D-driven FTSE 20 company and global provider of information-based analytics, data services and decision tools. Since 2004, Kumsal has held multiple management positions in the Exhibitions, Legal and Risk divisions, including as Chief Strategy Officer of RELX. Kumsal also chairs the Technology Forum at RELX, responsible for technology, risk management and cyber security strategy across RELX, and oversees the coordination of 9,000 technologists and data scientists. Prior to joining RELX, she 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 the University of California, Berkeley, where she received a bachelor's degree in Economics with honors.



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

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 print-on-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.



Esra Erkal
Executive Vice President
Global Communications
Elsevier

Esra Erkal is Executive Vice President, Global Communications. In 2019 Esra joined Elsevier from Coty, the global beauty company, where she was Chief Corporate Affairs Officer. Before joining Elsevier, Esra spent over seven years at AstraZeneca as the Global Head of Communications. Prior to that, Esra was an Executive Director of the Advertising Standards Authority in charge of Policy, Public Affairs and Communications, where she played a critical role in establishing internet regulation for the first time and transformed the way the watchdog works with industry to maintain responsible marketing standards. Previously, she was Head of Corporate Communications and External Affairs for the L'Oréal Group where she led the L'Oréal / UNESCO for Women in Science laureate programme. Esra is passionate about scientific progress and is a long-standing Trustee and Chairman of the British Skin Foundation, a charity dedicated to advancing research into skin cancer and skin health.



Jan Herzoff
President
Health Markets
Elsevier

Jan Herzoff is President of Elsevier's global healthcare businesses, which deliver information analytics solutions to hospital systems and academic institutions. In 2012 Jan joined RELX, the corporate group of which Elsevier is a part. He has a broad range of experience in Healthcare businesses across several sectors and has held multiple positions with Elsevier, most recently as Managing Director for APAC Health in Singapore with focus on key growth markets like China, India and Japan. He was previously General Manager of Elsevier's International Education business in London, where he was instrumental in driving the transformation from print to electronic through key product launches and acquisitions. Before joining RELX, Jan was an Engagement Manager at McKinsey & Company in Munich, Germany. He holds a PhD and Masters in Information Systems from the London School of Economics and graduated with a Masters in Finance and Accounting from the University of Bayreuth, Germany.



Kevonne Holloway
Managing Director
Global Content Partners
Elsevier

Kevonne Holloway is the Managing Director of Elsevier's Global Content Partners organization, which creates content for Elsevier's books, eBooks, and digital solutions. The content provides the foundation for nursing and medical school student education, is sought by healthcare educators, and is used by practicing clinicians and researchers worldwide. Kevonne is a respected leader in healthcare academic publishing and technology solutions. She brings more than 15 years of health industry experience to her role, managing and implementing pivotal strategic initiatives to provide rich content for Elsevier's growing digital footprint, which directly improves the customer experience by enriching and advancing outcomes. Kevonne's strong background in finance, operations, and management enables her to solve complex problems and turn challenges into opportunities. Her dynamic and inspirational leadership style and passion for supporting customers' content needs motivate her team to bring Elsevier's mission to life and achieve key objectives. Kevonne takes great pride in leading by example, developing others, helping them perform at their best, and giving back to the community. She is also a leading member and decisive voice on Elsevier's Race and Ethnicity Task Force, which is committed to eradicating racial bias from healthcare and research. Before joining Elsevier, Kevonne worked at Pharmacia, Johnson & Johnson, and Synovate Healthcare. She completed her undergraduate studies in Finance at North Carolina Central University in Durham, North Carolina, and earned a Master of Business Administration from Maryville University in St. Louis, Missouri. Kevonne is an active member of the Alpha Kappa Alpha Sorority, Incorporated and regularly mentors first-generation female college students at her alma mater, North Carolina Central University. In her free time, Kevonne spends as much time as possible with her family in North Carolina, where she can usually be found chasing after her two young nephews.

Team biographies



Ylann Schemm
Director
The Elsevier
Foundation
Elsevier

As the Elsevier Foundation's Director, Ylann Schemm drives technology-enabled partnerships to advance diversity in science, build research capacity and support global health around the world. She has been an integral part of the Foundation's growth since joining as a Program Officer in 2008. In 2020, Ylann was appointed Chair of the Executive Council of Research4Life, a UN-publisher partnership to bridge access gaps for researchers and doctors in developing countries. In addition, Ylann is Elsevier's VP of Corporate Responsibility, building on 20 years of corporate relations and responsibility roles and focusing on key technology, gender and sustainability collaborations. Prior to joining Elsevier in 2005, Ylann held various roles in publishing and the non-profit sector, representing the European Platform for Dutch Education at the European Commission. She started her career as a writer and researcher for Time Life Books and holds an MA in Film & Television Studies from the University of Amsterdam and a BA, magna cum laude in English from Amherst College in Massachusetts. Ylann is both American and Dutch and based in Amsterdam.



Domiziana
Francescon
Partnerships
Director
The Elsevier
Foundation
Elsevier

Domiziana Francescon serves as the Elsevier Foundation's Partnerships Director and is a strong supporter of the company's Corporate Responsibility program. She also works as Program Director for Elsevier's externally focused partnerships, especially in sustainability and Inclusion & Diversity spaces. Additionally, Domiziana is the Co-Chair of the Communications team of Research4Life, a UN-publisher partnership to bridge access gaps for researchers and doctors in developing countries. Domiziana obtained a master's degree in Book and Digital Media Studies at Leiden University in the Netherlands, with a specialization in Publishing Studies.



Maha Rhannam
Coordinator
The Elsevier
Foundation
Elsevier

Maha Rhannam works as a coordinator for the Elsevier Foundation, supporting in that the Foundation's partnerships and activities, as well as promoting the its activities online. Maha obtained a master's degree in International Development Studies from the University of Amsterdam. Prior to that, she served as a sustainability analyst for Vigeo-Eiris, a CSR rating agency. She also has extensive experience in research, having worked as a research assistant on various projects related to education and gender-based violence in sub-Saharan Africa. She grew up in Morocco and is based in Amsterdam.



Rebecca Clear
Communications
Director
Corporate
Responsibility
Elsevier

Rebecca joins Elsevier from the global conservation charity, the World Wide Fund for Nature, where since 2017, she has served as the Head of Media Relations for WWF International, leading on a range of proactive communications projects and issue management. Prior to this, she spent two years with WWF-UK working on business media and corporate stewardship communications. Rebecca brings a wealth of experience gathered over many years in the non-profit sector, as well as private and social enterprise, and from earlier in her career at the BBC.



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.



Mevan
Samarasinghe
VP and Technical
Fellow
Elsevier
Elsevier Foundation
Advisor

Mev Samarasinghe is VP and Technical Fellow in Elsevier Health Markets. His focus is on driving digital health innovation by connecting and leveraging data assets across the company. His career has focused on delivering search, content discovery and data science solutions in multiple industries. Mev is passionate about improving patient outcomes and research discovery by combining technology with trusted medical and scientific knowledge.

THE ELSEVIER FOUNDATION

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In the cover picture:

*Dr Pham Hong of Thuyloi University in
Hanoi, Vietnam - winner of the 2021
Chemistry for Climate Action Challenge*

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