A STORYTELLING SHOWCASE

Women in Science
Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers’ products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization (http://www.wipo.int/amc/en/mediation/rules/).


Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/about/licensing.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>iv</td>
</tr>
<tr>
<td>Introduction to TDR Global</td>
<td>01</td>
</tr>
<tr>
<td>Introduction to the compendium</td>
<td>02</td>
</tr>
<tr>
<td>Profiles</td>
<td></td>
</tr>
<tr>
<td>- Professor Pascale Allotey</td>
<td>05</td>
</tr>
<tr>
<td>- Professor Uche Amazigo</td>
<td>08</td>
</tr>
<tr>
<td>- Dr Clara Atieno Agutu</td>
<td>12</td>
</tr>
<tr>
<td>- Professor Jacqueline Azumi Badaki</td>
<td>14</td>
</tr>
<tr>
<td>- Dr Razia Fatima</td>
<td>16</td>
</tr>
<tr>
<td>- Dr Margaret Gyapong</td>
<td>18</td>
</tr>
<tr>
<td>- Dr Atupele Kapito-Tembo</td>
<td>20</td>
</tr>
<tr>
<td>- Professor Mary Ann Lansang</td>
<td>22</td>
</tr>
<tr>
<td>- Professor Lenore Manderson</td>
<td>26</td>
</tr>
<tr>
<td>- Dr Apio Brenda Okech</td>
<td>29</td>
</tr>
<tr>
<td>- Dr Atinuke Olaleye</td>
<td>31</td>
</tr>
<tr>
<td>- Professor Hannah Opokua Akuffo</td>
<td>33</td>
</tr>
<tr>
<td>- Dr Lyda Osorio</td>
<td>35</td>
</tr>
<tr>
<td>- Dr Ewurama D.a. Owusu</td>
<td>39</td>
</tr>
<tr>
<td>- Professor Rosanna Peeling</td>
<td>41</td>
</tr>
<tr>
<td>In Closing</td>
<td>46</td>
</tr>
</tbody>
</table>
I was exposed to scientific research from a young age, seeing first-hand how labs and experimental research worked thanks to my father’s career in genetics. During medical school, I was drawn to working with children and helping those who did not have a voice—perhaps something I’ve inherited from my mother, a remarkable woman who instilled a sense of responsibility and empathy in me and my two sisters.

After studying and working abroad, in 1991 I returned to India, where I worked on tuberculosis research. The disease was responsible for respiratory illness and mortality amongst adults and children, and there were many hurdles to overcome while working in this field. Working at the National Institute for Research in Tuberculosis (NIRT) in Chennai revealed the immense potential that research has in tackling TB. However, scientific research should not be conducted in isolation; researchers, practitioners and policy makers should work together and build collaborations to fight diseases. That is precisely what TDR Global is here for—finding experts and building collaborations.

I had the pleasure of working as a coordinator at TDR from 2009 to 2011, and over the years, I have seen TDR Global grow into a vibrant worldwide community of passionate scientists and researchers from all walks of life with different skill sets, interests and knowledge. This community will always be rooted in collaboration, mentoring and knowledge sharing.

In this compendium, you will find many inspiring stories from TDR Global’s women in research and science around the globe.

We focused on women’s journeys to inspire and invigorate the next generation of scientists and researchers. Women researchers and scientists have a lot to bring to the table, just like their men colleagues, and this compendium aims to showcase their strides and sacrifices.

A particular word of thanks goes to TDR Global’s senior expert advisors for their continued passion and dedicated contribution to TDR over a great number of years. Professor Hannah Akuffo, Professor Lenore Manderson, Professor Mary Ann Lansang, Professor Pascale Allotey, Professor Rosanna Peeling, and Professor Uche Amazigo—we salute you. You can also find their stories in the compendium.

May you find hope, wisdom, and knowledge in these pages, and the courage to use your expertise in the pursuit of lifting up those who need it most.

“Thank you to all the women featured in the compendium for sharing your stories – sometimes, even challenging stories to reflect on.”

DR SOUMYA SWAMINATHAN
WHO Chief Scientist, TDR Special Programme Coordinator
For over 40 years, TDR has been working hard at fighting infectious diseases of poverty, engaging researchers and experts from all over the world in its efforts. Each individual brings unique knowledge, and together they make up a vibrant scientific community called TDR Global.

TDR Global is committed to driving and encouraging mentoring of young scientists and fostering research collaborations.

However, you may wonder:

**How can such a diverse group of people form a community?**

Picture a single tapestry thread that can be woven into many rows. Naturally, this single thread has its limitations as it cannot create pictures or patterns on its own. If you add more threads, carefully weaving the thin fibres, the tapestry transforms into a colourful picture or beautiful design with intricate details.

TDR Global is exceptional in the same way as the colourful patterns on a tapestry because we are a combination of many unique individuals. Each member has their own expertise, culture, and background, creating a bigger, more powerful picture. Despite the complexity of the bigger picture, it connects us all in our shared field of interest.

We connect expert mentors with young scientists, local research communities with global and regional networks, and a shared, golden thread holds all of this together:

**A commitment to fight diseases of poverty through research and innovation.**
Meet some of the brilliant women woven into our tapestry

The TDR Global tapestry consists of many unique individuals working in the research and science field—intelligent, courageous individuals with a thirst to join our fight against diseases of poverty. One such thread in our tapestry belongs to our women scientists—adding their unique expertise, culture, and backgrounds to enrich the bigger picture.

We created a collection of inspiring stories to showcase the incredible work of a range of women scientists. The vision of this TDR Global compendium is to motivate those working in the field by sharing success stories of these women in research.

It all started a few years ago when TDR interviewed a group of women scientists we have supported at some point in their careers to track their progress and careers since. With this compendium, we decided to go one step further and re-interviewed the women from the original group of interviewees to get in-depth knowledge of their one-of-a-kind journeys as women in science. These scientists come from several locations—Colombia, Ghana, Kenya, Malawi, Mali, Morocco, Myanmar, Nigeria, Pakistan, Philippines, Somalia, South Africa, Sudan, Swaziland (Eswatini), Uganda, and the United Kingdom of Great Britain and Northern Ireland, to name a few.

Each woman featured in the compendium has her own unique story to tell. None of their paths were without its challenges, but it is how they reacted, embraced, and overcame these pressures that impressed us.

“By telling these stories, we are celebrating TDR Global’s unique women scientists, their incredible achievements, and the impact they have made in their communities as well as in their scientific fields—sometimes in astonishing and unplanned ways.”

Confident, strong women on their way to greatness.

On the following pages, you will share in their journeys, challenges, and opportunities. You will read about the power of mentorship and learn how these remarkable scientists navigated motherhood, marriage, cultural responsibilities, and their careers.

By reading how they bravely overcame obstacles in our shared fight against diseases of poverty, you will see how women are continually adding to their fields of research and the immense strides they have taken to help achieve TDR’s vision.

We believe that these women’s stories have a rightful place in the history of scientific research.
“TDR GLOBAL IS ABOUT YOU; IT IS ABOUT US.”

BEATRICE HALPAAP
TDR Programme Innovation and Management, Unit Head. TDR Global Initiative Lead.

First and foremost, TDR Global aims to support its community of scientists and experts — the very people at the helm of fighting infectious diseases of poverty.

We are here to nurture, guide, and encourage our experts to learn and share their knowledge continuously. Young scientists should have the opportunity to work side-by-side with the best in the industry, and the research sector benefits from collaboration among scientists.

We’re grateful to see that we’re well en route to achieving that vision of supporting our scientific community.
Here are some direct quotes from our women in science about their relationship with TDR and the TDR Global community:

“There is something to be learnt and shared at every stage of personal development. And TDR showed me that.”

“TDR’s support enabled me to focus on my passion — building the capacity of early career researchers to conduct clinical research through structured training programmes in collaboration with academia and industry partners.”

“We established a national network of health research for women in Malawi, called Women in Infectious Disease and Health Research in Malawi (WIIDREM). The TDR grant helped me to form this group.”

“The fellowship opened many opportunities, and the networking proved very instrumental. We now even have a Facebook page for doctors who are moms in Kenya.”

“It was a special kind of experience. It felt like a family. I felt connected, I had the opportunity to meet other scientists from other countries, and TDR tracked our progress. TDR’s support and collaboration meant and continues to mean a lot to me.”

“Through TDR, I have been able to meet other mentors who have helped me get where I am.”

“Scientific results about a previously unknown role of Natural Killer (NK) Cells in the control of leishmaniasis. The grant was vital.”

“I became the kind of medical anthropologist I am in part because of TDR. I was on a steep learning curve to be able to add value to TDR.”

Here are some direct quotes from our women in science about their relationship with TDR and the TDR Global community:
With a background as a midwife and nurse, Professor Pascale Allotey quickly recognized gender inequalities in her line of work and embraced the opportunities given to her to focus on gender research. As a Ghanaian, the cultural values and traditional gender roles proved to be challenging, especially from senior women in the family, who had other expectations for her. Professor Allotey remembers comments like: “What’s all this education nonsense? Get on with getting married and having kids sooner, rather than later.”

Working in Ghana was, at times, also a frustrating experience, particularly in the health area. Hierarchies intersect both with gender and in the health professions. Firstly, because she was a woman and secondly, she was not a medical doctor to gain legitimacy in the field. However, Professor Allotey was one of the few researchers to pursue a research career, and with her background in nursing, knowledge of research, and combination of epidemiology and anthropology, she was able to carve out a niche area of expertise.

“It was an advantage at the time that there weren’t that many African researchers who also focused on gender.”

Overcoming discrimination.

Professor Allotey has experienced first-hand the discrimination associated with gender and, interestingly, age as well. Early on in her career, she looked a lot younger than her real age, and it made it more challenging to be taken seriously as a woman, a researcher, and an academic. She recalls a specific incident while in her thirties when she was invited to do her very first keynote address at a tropical medicine conference.
She was still breastfeeding and travelling with her son at that time. Determined to be taken seriously, she decided she had to look a bit older and went to the local store for a professional make-over.

“Afterwards, I walked out towards the tube station, and this old lady came up to me and said, ‘Shame on you, teenage mom with her baby!’ Alas, the make-up was a wasted effort.”

Later in her career, while working and living in Asia where the gender dynamics are quite strong, she had to learn to negotiate the role of the messenger in dissemination and delivery of ideas.

“If I wanted to make an impact, I had to remember that the same message coming from me as a woman, and as an African woman, was not as impactful as when it was delivered by a male colleague. I learned to be comfortable with that. I have no desperate desire to be in the limelight.”

Joining hands with TDR.

Professor Allotey’s first interaction with TDR was during the data collection phase for her PhD thesis. She was working on a study exploring tropical diseases during pregnancy.

“It was just serendipitous. TDR was beginning to introduce social sciences research into the tropical diseases programme, so they invited me to join the gender task force.”

The opportunity to serve on various TDR committees as a technical advisor has been a real privilege, enabling her to contribute while also learning about policy formulation, political processes, and political prioritization. Another benefit of the relationship with TDR is the opportunity to co-develop capacity training programmes with colleagues from low- and middle-income countries, and Professor Allotey is still serving on TDR advisory groups.

“It’s a good ongoing relationship with TDR. It’s like having an aunt you can call on when you need her. She’s not with you all the time, but she’s available if you need her.”

Know what you want and pursue it wholeheartedly.

Her advice to young women is to be genuinely comfortable within themselves and know what they want. Very often, women end up having regrets about what they did and did not do.

“A lot of the gender roles and pressures come from women as well as the rest of society. Make your choice, deal with your decision and make sure you’re comfortable with it and run with it – manage your success.”

During her career, Professor Allotey remained very clear about her goals and made a conscious decision that she would not take on any opportunities if she doesn’t feel she can contribute to it. She was not interested in taking up leadership positions early on in her career. However, she was sober-minded about how leadership works and the dynamics of power distribution.

“Understanding leadership is about being able to assess what is going on, the dynamics of change. You don’t have to fit into a specific personality type to be a leader.”

She advises young women to learn the art of reading a room in order to become leaders of change. Take note of the decision makers and the subtle power dynamics within the room.

“Take your time to become an intelligent listener and observer to understand what is happening. Some of it will be about race, power, or gender dynamics. Be clear about what you want from that interaction. Learn from it and use it to make the change that is needed.”
## Career Highlights

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984 – 1993</td>
<td>Community-based public health nurse and midwife</td>
</tr>
<tr>
<td>1992</td>
<td>Master of Public Health degree at the University of Western Australia</td>
</tr>
<tr>
<td>1996</td>
<td>PhD in Public Health at the University of Western Australia</td>
</tr>
<tr>
<td>1994 – 1997</td>
<td>Joined TDR’s Task Force on Gender and Tropical Diseases</td>
</tr>
<tr>
<td>2004 – 2009</td>
<td>Professor of Race, Diversity and Professional Practice at Brunel U. London</td>
</tr>
<tr>
<td>2006 – 2011</td>
<td>Member of TDR’s Scientific and Technical Advisory Committee (STAC)</td>
</tr>
<tr>
<td>2009 – 2017</td>
<td>Professor of Global Health, Monash University Malaysia</td>
</tr>
<tr>
<td>1987 – 1989</td>
<td>Ran workshops for academic staff on supervision of higher degree research at the University of Ghana</td>
</tr>
<tr>
<td>2019</td>
<td>Developed the massive open online course (MOOC) on implementation research with TDR</td>
</tr>
<tr>
<td>2017 – present</td>
<td>Director of the United Nations University – International Institute for Global Health, hosted by the Malaysian Government</td>
</tr>
<tr>
<td>2016 – 2020</td>
<td>Member of the TDR Intervention and Implementation Research Scientific Working Group</td>
</tr>
</tbody>
</table>
Professor Uche Amazigo recalls how she drove her car to a remote village in Nigeria to meet with local women and adolescents who suffered from severe skin lesions, and how her vehicle would break down in remote areas at night. She had to wait for her husband to help her—once in the middle of a forest. This scenario was just but one challenge she had to face during that time, and her determination and passion for assisting women with onchocerciasis (river blindness) never faltered as she remained focused on her vision.

Her work on onchocerciasis skin disease with its unrelenting itching began in 1990 while visiting health centres in Etteh, south-east Nigeria to discuss proper nutrition and health advice with local women and adolescents. While she was initially interested in schistosomiasis, TDR’s Director, Dr Tore Godal, and social scientist, Dr Carlo Vlassoff, advised her to rather submit a proposal on the river blindness disease.

“I had taken some photographs of a young girl with disfiguring and ugly skin lesions and unrelenting itching. Upon receiving the pictures, TDR advised me to focus on onchocerciasis. They guided me and awarded research funds. With their guidance and great support in science, I invited a social scientist, Dr Dan Obikeze, and we conducted a multi-disciplinary research.”

A hands-on approach to conducting research.

The rural women allowed Professor Amazigo to join their local women’s meetings where they shared their intimate stories about the skin disease, which was a common occurrence amongst the locals.

“They exposed their skin to me and shared how the itchy rashes and infections would affect their marriages and the impact it had on breastfeeding. That’s how I came up with the pioneering research.”

“I love listening to rural people and engaging in dialogue with them. It opened up my specific avenue of research work.”
After Professor Amazigo finished her research report, she submitted it to a journal which, unfortunately, rejected it. Depressed but not deterred, she resubmitted it for publication and wrote her next paper focusing on the detrimental effects onchocercal skin disease and itching have on breastfeeding and marriage.

Her research approach created a lot of opportunities for her. TDR even produced a documentary on her research project, which was shown at WHO’s World Health Assembly in 1992.

“All of that happened because I listened to women, and I followed my heart.”

**Community-driven solutions.**

Even after Professor Amazigo completed her research on the effect the onchocercal skin disease had on women and adolescent girls, she kept going back for several years to determine the social consequences of the skin disfigurement.

“I learnt things that were extremely vital for me later in life when I became the director of the African Programme for Onchocerciasis Control (APOC). The WHO, World Bank, UNDP, donor countries, and nongovernmental development organizations (NGDO) led by The Carter Center, launched APOC, and TDR acted as the research arm. It was my responsibility as the scientist to APOC to defend the community-driven approach at meetings which included board meetings, technical meetings, and global meetings with donors.”

The first-hand knowledge she had gained by listening to women in rural communities at meetings enabled her to contribute significantly to the design of the community-directed treatment programme.

“There is inestimable value in asking the community to be key stakeholders and to contribute to the design of the delivery system. I always used this as a compass to ensure that I was on the right path, despite the difficulties I faced. The benefit of listening to the community in designing any programme they benefit from is priceless.”

By remaining focused on her passion and listening to the adolescents and women themselves—not other scientists, researchers, or health experts—Professor Amazigo was able to collect rich, invaluable primary research data that allowed the people’s voices to be heard. It led to the empowerment of community members, where they designed a programme to address their health needs themselves.

Using her remarkable passion, Professor Amazigo played an extensive role in the global repositioning of river blindless, from prevention and control, to elimination.

**Acknowledging those in support of your cause.**

Professor Amazigo’s rewarding 42-year affiliation with TDR has made many things possible in a health area affecting a lot of women and adolescents in rural parts of sub-Saharan Africa. TDR’s funding, guidance, networking and training on social sciences and anthropology, proved instrumental throughout her career.

“I remember a presentation I made to the TDR board in 2011, and I showed a number of the African women that TDR assisted and the impact they have made. It was all because of the research background and the support we received from TDR.”

TDR helped groom Professor Amazigo into the incredible scientist she is today and played a big role in her professional journey.

Her esteemed career includes many highlights such as delivering high-level presentations in Oslo and other cities around the world, making a film for the World Health Assembly, and receiving the prestigious Prince Mahidol Award in Public Health in 2012.
Practical tips towards achieving your vision and assisting the vulnerable.

Any researcher, young or old, can learn a lot from Professor Amazigo’s approach to advancing your career while making a difference in the community. She shares some of her tips.

1. **Perseverance.** Have a clear vision and remain focused on it. “Design a programme in your mind and heart; a problem or challenge you are very much attached to and that you would like to deal with.”

2. **Engage in research that improves human lives, especially the vulnerable and poor.** When you have found a health topic that speaks to you, ask those difficult questions, and have a mentor to support and guide your passion. “As an individual, you find that the little bit of research you did that could help to transform lives, is the work you’ll be most proud of, and pleased with.”

3. **Don’t interpret every negative response or attitude from anyone as an attack on you because you’re a woman.** Follow step one again – persevere, remain focused on your vision, and don’t be discouraged. “My PhD supervisor used to tell me: ‘Do not waste your energy on negative things’. We must look towards finding solutions instead of focusing on our problems.”

“Hearing others’ stories are far more enriching than some of the academic work we do.”

---

**Career Highlights**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>PhD in Biology and Medical Parasitology at the University of Vienna, Austria</td>
</tr>
<tr>
<td>1978</td>
<td>TDR fellowship for post-doctoral studies at the University of Bonn, Bernhard-Nocht Institute of Tropical Medicine, Hamburg and Institute of Virology, Essen, Germany; earned Diploma in Tropical Medicine &amp; Parasitology</td>
</tr>
<tr>
<td>1978 – 1996</td>
<td>Lecturer and Senior Lecturer, Department of Zoology and Parasitology, University of Nigeria,Nsukka, Nigeria</td>
</tr>
<tr>
<td>1990</td>
<td>TDR Research grant to study the effects of onchocercal (River blindness) skin disease on adolescent girls</td>
</tr>
<tr>
<td>1990 – 1991</td>
<td>Pioneered research on the social consequences of onchocercal skin disease on adolescent girls and women in Nigeria. This groundbreaking research was instrumental to the expansion of River blindness control to additional 19 countries in sub-Saharan Africa</td>
</tr>
<tr>
<td>1991 – 1992</td>
<td>Takemi Fellow in International Health, Harvard School of Public Health, Boston, USA</td>
</tr>
<tr>
<td>1993 – 2005</td>
<td>Served on numerous TDR committees including Onchocerciasis and lymphatic Filariasis Operational Research Task Force</td>
</tr>
<tr>
<td>Year Range</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1996 – 2005</td>
<td>I played a key role in the development and scaling up of community-directed treatment with ivermectin (CDTI) strategy, adopted for distribution of medicines to eliminate neglected tropical diseases (NTD); and TDR research on community-directed interventions (CDI)</td>
</tr>
</tbody>
</table>
| 2001 – 2005      | Chief, Sustainable Drug Distribution Unit, WHO/APOC  
Mentored and trained health workers on CDTI strategy in 19 APOC countries |
| 2009             | Instrumental to repositioning WHO/ APOC from a control to an elimination Programme  
Honorary Fellow of the Royal Society of Tropical Medicine and Hygiene, UK |
| 2012             | Won the prestigious Prince Mahidol Award in Public Health, Thailand                                                                                                                                                                                                  |
| 2012 – present   | Trustee and Advisor to foundations and international agencies including Sightsavers UK, TY Danjuma Foundation, Nigeria and Merck for Mothers Global Advisory Board on Maternal Mortality, USA                                       |
| 2013             | Honorary Doctor of Science (honoris causa) degree from the University of KwaZulu-Natal in South Africa                                                                                                      |
| 2013 – present   | Founder and CEO, Pan-African Community Initiative on Education & Health (PACIEH), Nigeria. Developed a community-managed school health and nutrition programme                                                  |
| 2014             | Professor of Medical Parasitology and Public Health (adjunct) in the department of Parasitology and Entomology, Nnamdi Azikiwe University, Awka, Nigeria                                                                 |
| 2015             | Elected Fellow of the Nigerian Academy of Science                                                                                                                                                                                                                   |
| 2016 – present   | Serves on the TDR Advisory Committee on Social Innovation in Health Initiative (SIHI)                                                                                                                                                                             |
| 2017 – present   | Member of Advisory Board, University of Ibadan Research Foundation (UIRF), Nigeria                                                                                                                                                                                    |
| 2018             | Recipient of Hallmark of Labour Award, Nigeria for outstanding contribution in Medical Sciences                                                                                                                  |
| 2021             | Member, National COVID-19 Coordinating Committee                                                                                                                                                                                                                   |
Dr Clara Agutu is a natural-born leader and her colleagues at KEMRI Wellcome Trust Research Programme (KWTRP) in Kilifi, Kenya, where she worked as a coordinator and trial manager for the REALITY trial from 2013 to 2015, urged her to apply for the TDR Clinical Research and Development Fellowship. She was awarded the TDR fellowship at GlaxoSmithKline (GSK) in Belgium, which proved to be a catalyst for her career by providing her with a platform to gain knowledge on the complete process of conducting clinical trials. Armed with this experience and hands-on mastery, she went back to her home country where she currently works on clinical and vaccine trials.

Strike while the iron is hot.

Although Dr Agutu took advantage of the TDR fellowship when it came across her path, it was by no means an easy decision, especially with a 6-month-old baby and partner at home. After careful consideration, Dr Agutu accepted the TDR fellowship and her daughter travelled to Belgium with the best travel companion, her mother. Although her mother only had a 3-month visa and had to travel back to Kenya to re-apply, the assistance and support were life-changing. Despite all the sacrifices, financially and at home, Dr Agutu is convinced that it contributed towards the greater good.

“It was the right decision for me, career-wise. The fellowship opened many opportunities, and the networking proved very instrumental. We now even have a Facebook page for doctors who are moms in Kenya to provide support and encouragement to moms considering abroad placements.”

Diversify your skills and build a better career.

TDR opened up plenty of golden opportunities for Dr Agutu. From budgeting and understanding
multicountry perspectives, internal structures, approval processes, and expected timelines, the fellowship allowed Dr Agutu to see, understand, and implement the entire vaccine development process. With the unique network at her disposal, she realized that it could provide an entirely new branch of intelligence and know-how.

She met with people from different areas, asked questions, and formulated a rich understanding of how clinical trials are conducted holistically.

“I spoke to people in pre-clinical studies, toxicology, safety, marketing, and even the regulatory department. Working in the developing world, I understand the process and the chain; it’s of immense value to me now. I would never have that understanding without the support from TDR.”

The support from the TDR and GSK teams was a welcome comfort for Dr Agutu. She says her “fantastic supervisor” Dr Opokua Ofori-Anyinam, was like a second mom, showing her around in Belgium and introducing her to people.

“The TDR team communicated with me on a regular basis: they were very hands-on about the process, and I loved my placement. I understood what the process would be going into this fellowship, and that helped a lot.”

**Weighing the pros and cons to make better decisions.**

Dr Agutu shares some advice on making hard decisions: First, weigh up all the factors. What are the things you will be risking? Secondly, if you have children, how old are they and do you have a good support network to step in and help? If you do have a healthy support system, strike while the iron is hot and take the opportunities that present itself. Finally, remember that all of your hard work will better your family’s future too.

“Your decisions affect your family and their well-being. What you decide will also teach your children: you can be independent, you won’t hold back, and you can advance your career.”

“Your journey is not isolated, you have to lean on others, and your success will be everyone’s success.”

---

## Career Highlights

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 – 2009</td>
<td>Bachelor of Medicine and Surgery (MBChB) at the University of Nairobi, Kenya</td>
</tr>
<tr>
<td>2010 – 2011</td>
<td>Medical Internship at Kenyatta National Referral Hospital, Nairobi, Kenya</td>
</tr>
<tr>
<td>2011 – 2012</td>
<td>Master’s degree in Public Health (MPH) at the University of Nottingham in the United Kingdom of Great Britain and Northern Ireland</td>
</tr>
<tr>
<td>2016</td>
<td>TDR Clinical Research and Development Fellowship at GlaxoSmithKline in Belgium</td>
</tr>
<tr>
<td>2017</td>
<td>TDR Re-Integration Grant</td>
</tr>
<tr>
<td>2017 – 2021</td>
<td>PhD Fellow (Clinical Epidemiology and Public Health) hosted at KEMRI Wellcome Trust Research Programme, Kilifi, Kenya funded by a competitive award from Sub-Saharan African Network for TB/HIV research Excellence (SANTHE) Co-Investigator, study coordinator and clinician in a number of clinical and vaccine trials such as Tumbua Mapema Plus Study; an HIV testing intervention trial (ClinicalTrials.gov Identifier: NCT03508908), HIV CORE 006; an HIV vaccine trial (ClinicalTrials.gov Identifier: NCT04553016) and the CopCov Trial; a randomised, placebo-controlled prophylaxis trial for COVID-19 prevention (ClinicalTrials.gov Identifier: NCT04303507)</td>
</tr>
</tbody>
</table>

---

PROFILES 13
After becoming an Associate professor at the Federal University Lokoja (FUL), Professor Jackie Badaki of Nigeria watched as younger colleagues struggled just as she had to balance the demands of family and career. Now, she is actively mentoring other women academics, and her passion for mentorship went even further when she established a training and mentorship consultation for all individuals in science, regardless of their gender. Professor Badaki received four TDR grants where she worked as co-investigator. Later in 2014, she was awarded a TDR grant as the principal investigator.

“A lot of opportunities presented itself, especially after the 2014 TDR grant, where I was the principal investigator.”

When opportunity knocks.

Her formative years working as co-investigator on TDR grants molded Professor Badaki into the scientist she is today with hands-on training in research implementation and management of large multidisciplinary teams. These projects provided opportunities for multidisciplinary proposal development and data analysis workshops in different socio-cultural settings.

“The exposure I got from these grant projects not only sharpened my skills in proposal development and analytical skills, but also built my self-confidence. Besides personal growth, I also got to experience other cultures aside from mine.”

Professor Badaki led several teams while working as the principal investigator for a study that evaluated the UK Department for International Development (DFID)-funded projects on neglected tropical diseases (NTD) in parts of northern Nigeria. She was also invited as an expert panel member at the German-African Cooperation Projects in Infectiology Conference in 2017.

“There were lots of opportunities after the TDR grant. But there have also been challenges,
especially living in a very chauvinistic society, but I was able to successfully hold my own, even though it might’ve come across as arrogant.” She has been consulting for international developmental agencies focused on control of neglected tropical diseases and rural health for more than a decade as a trainer and project evaluator. Professor Badaki has trained more than 300 lymphoedema patients and 500 health workers across northern Nigeria in lymphoedema management procedures. She has been the lead consultant for Sightsavers International in the independent evaluation of its NTD programme for five years (2014 – 2018).

No gain without pain.

Professor Badaki was realistic about the sacrifices she had to make to arrive where she is today. She worked hard to succeed and is a firm believer that women can advance in their careers while juggling family responsibilities. Her advice is to get a mentor you can relate to on all levels, a mentor who will also help you make fewer mistakes. “Women scientists in Nigeria – we can’t run away from our family responsibilities. But maternity leave affects employment, and we want institutions to take this into account – to appreciate the many challenges women face. Also, you need measurable and very realistic career goals to work with and, of course, be prepared to be mentored.” Professor Badaki’s passion and belief in mentorship are evident from her mentee beneficiaries: “Professor Badaki’s insights on academic and work career have been very beneficial. She has helped me to develop and improve my personal and professional skills beyond what involvement in university life could offer me. Engaging in the mentoring relationship has not only enabled me to meet a teacher, someone who I have learnt greatly from professionally, but also a life-long friend.” - Helen Edogbanya, Nigeria

“Challenges are part of living and are necessary to know who we are.”

### Career Highlights

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>Principal Investigator, WHO/APOC Operations Research on “Assessment of patterns of participation of women in purdah in CDTI activities”</td>
</tr>
<tr>
<td>2003 – 2006</td>
<td>Co-Investigator, Application of Community-directed Interventions (CDI) to health problems in North-Eastern Nigeria</td>
</tr>
<tr>
<td>2008</td>
<td>Support Consultant, to the Ministry of Higher Education, Sudan. Trained over 30 senior academic staff on grant winning proposal development.</td>
</tr>
<tr>
<td>2016</td>
<td>Lead Consultant, PATHS2, an affiliate of DFID, UK. Responsible for operational research related to public-private partnership initiatives within Nigeria</td>
</tr>
<tr>
<td>2017</td>
<td>Expert Panel member at the German-African Projects in Infectiology Conference. Hamburg Germany.</td>
</tr>
<tr>
<td>2018</td>
<td>Professor at Federal University Lokoja, Kogi State. Nigeria.</td>
</tr>
<tr>
<td>2020</td>
<td>Member, University Council, Federal University Lokoja, Nigeria</td>
</tr>
</tbody>
</table>
Currently Chief of Research at the Common Unit to manage tuberculosis (TB), AIDS and malaria under the Federal Ministry of Health of Pakistan, Dr Razia Fatima started her career in 2001 at a rural health centre in the remote Rawalpindi District.

Six years later in 2008, after completing her master’s degree in London with WHO support, she was part of the country’s National TB Control Programme – the starting point of an impactful career in research. Dr Fatima reached a tipping point in her career in 2009 when she attended an operational research course supported by TDR called SORT IT (Structured Operational Research and Training Initiative).

“Unfortunately, generally speaking, being a woman in research was not quite welcomed in the male-dominated culture in my country. But I was blessed to attend SORT IT, where I received lots of encouragement from my mentors Professor Donald Enarson and Professor Anthony Harries.”

Enthusiastic about the potential impact of the course, Dr Fatima decided to launch the SORT IT capacity-building initiative in her home country in 2016.

Fall seven times. Stand up eight.

It was a challenging experience for Dr Fatima to bring the highly prized SORT IT initiative to Pakistan; potential stakeholders were not very receptive to this idea initially, and funding was slow to stream in.

“It was challenging. After a series of meetings within the country and continuous support from my host of mentors, I was finally able to launch the same SORT IT course in Pakistan from 2016 onwards, through a small grant scheme by TDR and Global Fund co-financing.”
TDR’s support was an important catalyst to the success of SORT IT in Pakistan. The operational research-focused initiative brought about positive change with more women showing their interest to join Dr Fatima’s capable team of trained researchers. Research financing remains a significant bottleneck – a much-needed resource to onboard more talented researchers to continue the fight against TB and other diseases of public health importance.

TDR’s involvement – the spark to ignite change.

The SORT IT initiative trained more than 50 researchers in Pakistan, of which 40% were women. Dr Fatima mainly focused on Pakistan’s missing TB cases, collaborating with private providers to expand networks and, ultimately, minimise under-reporting. She’s a visionary in TB control and has published numerous research papers either as principal or co-author.

She presented her success story to the TDR Joint Coordinating Board in 2018, and a feature story in TDR News helped her to advocate her research vision for Pakistan.

“I am currently part of 50-plus international research papers in international journals, and many brought about positive policy changes for my country.”

Never give up.

Dr Fatima’s passion for positive change is seen through all the work she is doing in Pakistan. A phrase uttered by her old mentor, Dr Khalife Bile Mohammad, in 2008 while she was completing her master’s degree through a WHO fellowship at the London School of Hygiene & Tropical Medicine, served as constant reminder throughout her journey:

“You can never cross the ocean unless you have the courage to lose sight of the shore.”

“Don’t feel alone in your ideas to bring about change. Be strong, and one day you will bring the change.”

Career Highlights

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Medical degree from Pakistan</td>
</tr>
<tr>
<td>2002 – 2008</td>
<td>Women Medical officer in a remote Basic health unit</td>
</tr>
<tr>
<td>2008</td>
<td>Joined National TB Control Program Pakistan</td>
</tr>
<tr>
<td>2008</td>
<td>Masters in Science in Epidemiology from London School of Hygiene and Tropical Medicine</td>
</tr>
<tr>
<td>2009</td>
<td>Master of Public Health degree from Pakistan</td>
</tr>
<tr>
<td>2015</td>
<td>Doctoral degree in Public Health from University of Bergen, Norway</td>
</tr>
<tr>
<td>2016 ongoing</td>
<td>Led and organized SORT IT courses in Pakistan</td>
</tr>
<tr>
<td>2017</td>
<td>Promoted to Chief research position The common Unit to manage TB, AIDS and Malaria</td>
</tr>
</tbody>
</table>
When Dr Margaret Gyapong accepted the task to head the Dodowa Health Research Centre in Ghana, she made a conscious decision to lead the institution and its team by example, leaving a legacy of an internationally acclaimed centre that conducts research at the highest level. Back then in 2005, there were three research centres in Ghana. Two of the centres, led by men, were well-established in the research field and enjoyed international recognition. With a fire in her belly and determination to exclude situations where non-performance might rear its head, Dr Gyapong made her mark as the first woman to lead a research centre in the Ghana Health Service. Walking into the three-room office, her team consisted of an accountant, four research assistants and two other women with bachelor’s degrees.

“Twelve years later, I left the institution when I had achieved my goal of transforming the place into a centre of excellence to the best of my ability.”

Today, the centre is highly regarded globally for implementation research, and Dr Gyapong is seen as its heroine. She was recognized for her achievements with the Heroine of Health Award conferred by General Electric Healthcare and Women in Global Health, which she received at the World Health Assembly in Geneva.

Be the architect of your own destiny.

The late Dr Sam Adjei had a lasting impact on Dr Gyapong’s career. He was her boss whilst working at the Health Research Unit of the Ghana Health Service from 1995 to 2000 after which another director took over for the remaining 5 years Dr Gyapong worked at the Health Research Unit of the Ghana Health Service (later to become the Research and Development Division of the Ghana Health Service), but more than that, he was a leader who believed in women.

The workplace environment he created encouraged his staff, of which 80% were women,
to work hard and to enjoy it. Despite this, Dr Gyapong doesn’t recall any preferential treatment or opportunities as a woman in research.

“Of course, there were calls for proposals that particularly encouraged women to apply. However, I am sure I got those grants not because I was a woman but because the proposals were technically sound.”

Support and collaboration to stand the test of time.

Dr Gyapong received two research capacity-building grants from TDR in the 1990s to pursue her master’s degree and PhD. “It was a special kind of experience. It felt like a family. I felt connected, I had the opportunity to meet scientists from other countries, and TDR tracked our progress. TDR’s support and collaboration meant and continue to mean a lot to me.”

Something Dr Gyapong will never forget is the fact that TDR had a special interest in all its grantees, with regular follow-ups on each of them. The institution also engaged its trainees on task forces and committees. The funding was also consistent, provided that TDR had confidence in you.

“The proposal enhancement workshops that helped young scientists further develop their proposals, and the mentorship were exceptional.”

Tips for an approach that works for you and not against you. As for most women who work in science and research, motherhood remains a significant challenge.

“I had a lot of family support, but if I had to do it all over again, I would strategize better to spend just a little more time with my young children.”

Dr Gyapong shares her top three tips on balancing it all while pursuing excellence in your career:

1. Don’t expect any special treatment because you’re a woman.
2. Work hard, pursue excellence, and have high standards in all that you do.
3. Don’t put your whole life on hold for marriage and children; pick up and move on.

And, remember: “Quitters never win.”

Career Highlights

2006  Adjunct Professor of International Global Health Georgetown University
2005 – 2016  Director, Dodowa Health Research Centre, Ghana Health Service
2011  Member Scientific Advisory Group WHO/Implementation Research
2014 – 2017  Ghana Social Science Lead COUNTDOWN Consortium
2016  Chair EDCTP Implementation Research Review Group
2017  Member Swiss TPH External Review Board
2017 – 2018  Full Professor and Director Centre for Health Policy and implementation research. Instrumental in having the centre classified WHO/TDR Satellite training Centre for Implementation Research
2017  Heroine of Health Award for drawing attention to the needs of women suffering from the consequences of Neglected Tropical Diseases
2018  Co Authored 4 chapters of the WHO/TDR implementation Research Toolkit
2018  WHO/NTD Scientific Technical and Advisory Group
2019  Director Institute of Health Research University of Health and Allied Sciences
2019  WHO/AFRO Advisory Committee on Health Research and Development
2021  Member Board of Trustees. Royal Commonwealth Society for the blind (Sight Savers)
Dr Atupele Kapito-Tembo is a medical doctor and deputy director of the MAC-Communicable Diseases Action Centre at the University of Malawi College of Medicine. As a leader and key implementation researcher supporting immunization services in Malawi, she directly assists the Ministry of Health in the fight against infectious diseases.

It’s her passion to not only use her strong leadership skills to support research and health programmes, but also to inspire, mentor, and support other young women through the wider national women research network she has established.

“We established a national network of health research for women in Malawi, called Women in Infectious Disease and Health Research in Malawi (WIDREM). The TDR grant helped me to form this network. It’s all about allowing other women and young researchers in the health field to flourish.”

This much-needed networking platform encourages interaction and allows women to identify specific challenges affecting their advancement in health research and find locally feasible solutions.

Furthermore, they find solutions for shared health issues affecting Malawians. It also provides a valuable connection point for young aspiring women interested in research.

Women across Malawi from a broad variety of institutions are members of WIDREM. The network created invaluable connections for Dr Kapito-Tembo, including the opportunity to attend a workshop by a German research foundation to advance WIDREM network, share experiences, and build new collaborations.

Events like these offer promising platforms where Dr Kapito-Tembo can share her passion for supporting women working in science.

“We need to help each other, and other women in the field. By sticking together and empowering others irrespective of what level you’re on, we can rise together.”
During her studies, there were only men as mentors; but now a new era of women mentors has dawned.

Creating a platform for change.

Dr Kapito-Tembo knows first-hand that women researchers in Malawi have a great need for fellow women mentors who experience the same societal pressures and cultural expectations. In her case, she did not have this support and guidance from other women mentors whom she could relate to on a cultural level.

Now, she’s adamant about nurturing the WIDREM network for women to grow and advance their careers despite all the challenges.

Determination to challenge the status quo.

As a woman in science and research, Dr Kapito-Tembo is determined to be independent and to create her own niche. In Malawi, research has mostly been seen as a man’s world which propelled her to work even harder and to take on opportunities – even if it meant creating something by herself.

Culturally, there is an expectation that she must wear many hats; a balancing act she handles with grace.

“Apart from the nuclear family, we also have an extended family culture in Malawi, and being a medical doctor, there is an expectation that one should take care of community and extended family members including the sick. It’s a cultural expectation, and together with other community responsibilities, it becomes a lot more challenging to be a woman researcher in our Malawian context.”

Her commitment to family responsibilities and her drive to establish herself as an independent researcher who supports health programmes makes her a real example for any woman practising or interested in research.

---

**Career Highlights**

Medical doctor

District Health Officer for Blantyre in Malawi

Masters and PhD in Public Health and Infectious Diseases Epidemiology (USA)

Joined a research institution focusing on malaria and communicable diseases

TDR Grant

Collaborative Initiative for Paediatric HIV Education and Research (CIPHER) Grant

Deputy director of the Malaria Alert Centre at the University of Malawi College of Medicine

Deputy Head of Public Health Department in the School of Public Health and Family Medicine at University of Malawi College of Medicine

Leader and key implementation researcher in immunisation services and infectious diseases in Malawi, assisting the Ministry of Health

Established the Women in Infectious Disease and Health Research in Malawi (WIDREM)
Collaborating with scientists from different fields, perspectives, and countries has proven to be highly beneficial for Professor Mary Ann Lansang throughout her medical and research career. Based in the Philippines, she has been monumental in the country’s fight against various infectious diseases, including malaria and tuberculosis – both protracted battles that require determination, patience, and persistence.

Living and working in the Philippines, Professor Lansang experienced no real discrimination in terms of women researchers’ perceived capability. However, many physicians in the country, regardless of their gender, prefer working as medical practitioners since researchers earn much less. Although there is a considerable need for increased research in the country, there are significant challenges, such as securing funding and navigating the infrastructure and culture for research.

“Sadly, we lose some of our best local researchers to the global health community. There are very few opportunities to do good research that pays well in our setting.”

A new dawn of connection with TDR.

Professor Lansang first learned about TDR while working on a malaria programme with other research institutions around the globe. She recalls working as a scientist with the late Dr Richard Morrow, an esteemed epidemiologist, on a TDR capacity-building programme called Field Links for Intervention and Control Studies (FIELDLINCS) in Geneva, Switzerland. The year was 1990, and the internet was brand new. It only just made its appearance across the border from Geneva, and together with Dr Morrow, they started utilizing the new technology to communicate with field researchers.

“It was a great time. TDR has always managed to connect a diverse group of scientists all over the globe.”
Teamwork and collaboration at the heart of it all.

TDR’s unique ability to foster a collaborative bond between scientists and institutions has made a significant impact on Professor Lansang’s career.

“TDR’s grants have been essential in pushing research to a point where it can be sustainable.”

By encouraging a ‘twinning relationship’ approach, where local institutions are paired with scientists from a different country, the TDR grants have transformed the capacity-building space and encouraged real collaboration between parties. This approach enables researchers and scientists to tap into each other’s expertise, benefitting and learning from one another, while also having access to technology that might otherwise not be available.

“This twinning approach also naturally encourages the formation of networking relationships. It goes way beyond the lifespan of the grants.”

Another TDR attribute that Professor Lansang values is TDR’s emphasis on gender equality.

“In my early days as a researcher in the Philippines, I was not aware of any gender discrimination, making me gender blind to some of the research issues. But at TDR, there was an opportunity to raise that often-forgotten issue of gender equality.”

The cornerstones of success.

Professor Lansang shares four pieces of advice for women researchers on their journey to successfully translate research into practice:

1. Be persistent.
   Unfortunately, working in the research industry, you will experience setbacks—not all research delivers positive results, and even more so when there are limited resources. “It’s good to practice the virtues of being patient and persistent in research.”

2. Seek out networking opportunities.
   As mentioned, networking plays a vital role in the advancement of one’s career, and also of science in general. “It is so important to seek out other scientists and look for different perspectives when doing research.”

3. Find a good mentor.
   A successful mentoring relationship is a two-way street. Professor Lansang mentions learning a lot from her mentees, saying their ideas are fresh and all they need is the right stimulation. “Having regular interactions with your mentor can be very helpful. Mentors can provide opportunities, encouragement, and sometimes even new ideas. The TDR Global community is very keen on fostering a pool of mentors that can be matched with young researchers.”

4. Finally, connect research with context.
   Context is everything when it comes to research. Knowledge is rich—it’s more than mere data and information.

   “Researchers need to understand the context of the research and how it can be adapted or adopted into a policy context. We need to understand the context of policymakers and decision-makers—the why, what, where, and when; not only the how.”

The knowledge management book Learning to Fly, by Chris Collison and Geoff Parcell, proved inspirational to Dr Lansang throughout her career. It uses the analogy of eagles, high up in the mountains, with their offspring having to learn how to fall out of their nests in order to ultimately fly.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>Bachelor of Science in Psychology (summa cum laude) at St Louis University, Philippines</td>
</tr>
<tr>
<td>1974 – 1985</td>
<td>Doctor of Medicine, University of the Philippines Manila, College of Medicine; Specialty training in Internal Medicine - Infectious Diseases, University of the Philippines - Philippine General Hospital</td>
</tr>
<tr>
<td>1984 – 1987</td>
<td>First director of the Clinical Epidemiology Unit at the University of the Philippine General Hospital (UP-PGH)</td>
</tr>
<tr>
<td>1984 – 1989</td>
<td>Key role as epidemiologist of the Liver Study Group, UP-PGH</td>
</tr>
<tr>
<td>1987</td>
<td>Master of Medical Sciences (Clinical Epidemiology), University of Newcastle, Australia</td>
</tr>
<tr>
<td>Early – mid-1990s</td>
<td>Facilitated the development of promising interventions and products by ensuring that Phase 1-2 malaria vaccine trials supported by TDR adhered to the requirements of Good Clinical Practice (GCP)</td>
</tr>
<tr>
<td>1990</td>
<td>Oversaw the FIELDLINCS programme from TDR’s headquarters in Geneva, Switzerland</td>
</tr>
<tr>
<td>1991 – 1996</td>
<td>Assistant Director of the Research Institute for Tropical Medicine (RITM) Project leader of various epidemiological studies and community-based interventions against malaria</td>
</tr>
<tr>
<td>1993 – 1998</td>
<td>Board member of the Council on Health Research for Development (COHRED)</td>
</tr>
<tr>
<td>1995 – 2000</td>
<td>Member, TDR Steering Committee on Vaccine Discovery Research</td>
</tr>
<tr>
<td>1996 – present</td>
<td>Professor at the Department of Clinical Epidemiology and the Infectious Diseases Section of the Department of Medicine, University of the Philippines Manila, College of Medicine—Philippine General Hospital, 1996 – 2016; Clinical Professor, 2017 – present</td>
</tr>
<tr>
<td>2000 – 2004</td>
<td>Executive Director of the International Clinical Epidemiology Network (INCLEN)</td>
</tr>
<tr>
<td>2001 – 2007</td>
<td>Member, TDR Scientific and Technical Advisory Committee (STAC)</td>
</tr>
<tr>
<td>2008 – 2012</td>
<td>Director, Health Advisory Unit, The Global Fund to Fight AIDS, Tuberculosis and Malaria, Geneva, Switzerland</td>
</tr>
<tr>
<td>2013 – 2016</td>
<td>Chief of the Infectious Diseases Section at the Department of Medicine, UP-PGH</td>
</tr>
</tbody>
</table>
Professor Lenore Manderson is one of the most prolific applied medical anthropologists globally. Her impressive résumé includes serving on several TDR technical advisory committees for over 30 years.

Her unique skillset and understanding of infectious diseases, including the environmental and social contexts, are amongst the strengths she brings to the scientific community.

“I became the kind of medical anthropologist I am in part because of TDR. I was on a steep learning curve to be able to add value to TDR.”

Professor Manderson’s capability to think on her feet makes her perfectly suited to TDR’s work. Her views on TDR, one of the “most innovative” international organizations, are a testament to the incredible work the global programme does in the field of research:

“It’s just been the most extraordinary privilege to be involved with TDR, to have worked with such a range of brilliant people and programmes. I respect them enormously.”

Fortune favors the brave.

Professor Manderson, a citizen of Australia now working in South Africa, says she only came to terms with the resistance and discrimination she had to face due to her gender while in her 50s. Being undermined and bullied did not deter her as she bravely ventured forth to achieve her vision of
producing knowledge. And, indeed, that is what she did. She moved at lightning speed as an academic: she was appointed to her first full professorship in Australia at the age of 36, the youngest full professor in her faculty by at least 15 years.

She was one of the only senior women at that medical school and the only anthropologist as all other professors were trained as medical doctors. She also enjoyed recognition as the first medical anthropologist to be appointed as full professor to any medical school in Australia.

Like many high-performing individuals, Professor Manderson constantly questioned herself. Determined not to give anyone any reason to challenge her skills, she has consistently worked hard.

Through her work as an anthropologist, with a background in social history, she has always challenged paradigms, and she has constantly fielded criticism of qualitative research. This is something that she has used to her advantage, scoffing off the offensive comments and working even harder.

The demands to be treated as an equal would result in anyone feeling beaten down. Particularly as a student and early in her career, some comments left Professor Manderson feeling empty: “It’s a waste of time supporting women, they only get married;” and “Her achievements are a fluke.” She soldiered on.

“Intermittently these comments haunt you and undermine you. This is why I have enormous sympathy for people who are marginalized because they are black, indigenous or from another minority group. If it’s hard enough being a white woman, then it must be phenomenally harder for other women working in research.”

Advice on becoming a force to be reckoned with.

Professor Manderson’s wealth of knowledge and experience have the potential to be inspirational for other women working in academia, research, and science. Among other things, she emphasizes the value of others’ support. Senior researchers have a role in supporting others, she argues, including people from minority groups and others whose voices have not been heard.

“We must recognize the effects of structural discrimination and build opportunities that counter them.”

She shares five solution-driven tips on becoming the best version of yourself in a complex, competitive and sometimes brutal world.

1. Take yourself seriously. Professor Manderson acknowledges that there were times she had a crisis of confidence and stresses the importance of personal commitment to counter this. “Think of yourself as someone who does intellectual work and stay committed to that.”

2. Learn to speak out and be heard. “Being invisible is never going to get you to the front row.” You must learn to advocate for yourself and effectively capture your skills and strengths in words.

3. Have people who believe in you with the mechanisms to support you. A strong support system is crucial to make it as an academic. Professor Manderson had colleagues who believed in her, and their support gave her confidence. People very often don’t understand the benefits of mentorship, and that is where online communities can be invaluable. You need to overcome your sense of reluctance and reach out for help.

4. Look out for opportunities and take advantage of them. If you are not actively engaged in your research communities, no one will know of your work. It’s important to remember that an excellent research record is only part of the work of being a productive scholar and a successful academic.

5. Realize that being a researcher and academic is a 24-hour job. You need to have a burning passion and work hard. This does not mean you forfeit other things in life, but you do have to be dedicated to succeed.
## Career Highlights

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974 – present</td>
<td>Produced 28 academic books; guest-edited 21 special journal volumes, 285 peer-reviewed articles and 120 book chapters; and authored even more reports, manuals, research methods and other guidelines, and short articles.</td>
</tr>
<tr>
<td>1978 – present</td>
<td>Advisor to multiple global, national and state bodies on a range of subjects.</td>
</tr>
<tr>
<td>1990 – 1992</td>
<td>Developed the Malaria Manual based on collaborative research in Ghana, and supported various projects on malaria in the Philippines and China.</td>
</tr>
<tr>
<td>2011 – 2020</td>
<td>Editor of Medical Anthropology.</td>
</tr>
<tr>
<td>2012 – 2016</td>
<td>Mentored TDR grantees and served on numerous TDR committees, including STAC, the Scientific Working Group on Vectors, Environment and Society (2015-2017), and Social Innovation in Health Initiative.</td>
</tr>
<tr>
<td>2014 – present</td>
<td>Distinguished Professor of Public Health and Medical Anthropology, School of Public Health, University of the Witwatersrand (Wits), Johannesburg, South Africa.</td>
</tr>
<tr>
<td>2014 – 2019</td>
<td>Visiting Distinguished Professor at the Institute at Brown for Environment and Society, Brown University, Providence, United States of America.</td>
</tr>
<tr>
<td>2016</td>
<td>Career Achievement Award from Society of Medical Anthropology of the American Anthropological Association.</td>
</tr>
<tr>
<td>2020</td>
<td>Member of the Order of Australia. Trained to graduation over 160 PhD and masters students.</td>
</tr>
</tbody>
</table>
Dr Brenda Okech’s passion for science emerged at an early age, thanks to a primary school teacher and parents who valued education. She places a high emphasis on mentorship and recognizes its importance in building a robust career.

“Reach out for support and mentorship to ensure that you make the most of the opportunities that come your way.”

Her mentors helped build her tenacity and grit, which played a crucial role in her professional journey, including the work she is doing as the director UVRI-IAVI HIV vaccine Program (UVRI-IAVI). A non-profit organization founded by Uganda Virus Research Institute and International AIDS Vaccine Initiative.

A journey filled with opportunities, life-long mentors, and professional experiences.

She had a fruitful stint at the TDR Clinical R&D Career Development Fellowship Programme and mentoring organization, GlaxoSmithKline Biologicals in Belgium. It opened up many doors and experiences, the backbone of her work on HIV prevention trials.

“Through TDR, I received short course training opportunities that have sharpened my skills in various areas including networking, immunology, monitoring and evaluation.”

Dr Okech is still reaping the fruits from her
fantastic exposure and experience in managing clinical trials at GlaxoSmithKline in Belgium. The support and knowledge she received from this fellowship enabled her to work with various vaccine-geared organizations throughout the continuation of her career.

These include Statens Serum Institute, African Malaria Network Trust, and European Vaccine Initiative. Not to mention the network she’s established through her affiliation with TDR, resulting in a broad group of connections and increased capacity.

“I believe that all these experiences have led to my current job as Director at UVRI-IAVI.”

TDR has helped Dr Okech gain immeasurable experience and professional opportunities. Learning from her mentors has enabled her to apply and share her knowledge at UVRI-IAVI.

---

### Career Highlights

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Position/Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 – present</td>
<td>Director, UVRI-IAVI HIV vaccine Program</td>
</tr>
<tr>
<td>2014 – 2018</td>
<td>Lecturer, Makerere University</td>
</tr>
<tr>
<td>2012 – 2013</td>
<td>Project Manager GMZ2 (Consultancy), Statens Serum Institut</td>
</tr>
<tr>
<td>2009 – 2012</td>
<td>Project Manager GMZ2 consortium, African Malaria Trust</td>
</tr>
<tr>
<td>2008</td>
<td>Senior Research Scientist</td>
</tr>
<tr>
<td>2007 – 2008</td>
<td>TDR Clinical R&amp;D Career Development Fellowship Programme at GlaxoSmithKline Biologicals in Belgium</td>
</tr>
<tr>
<td>2006</td>
<td>Obtained PhD in Immunology at London School of Hygiene and Tropical Medicine</td>
</tr>
</tbody>
</table>
With a steadfast desire to improve women’s lives and a keen interest in conducting clinical research, Dr Atinuke Olaleye successfully applied for the TDR Clinical Research and Development Fellowship in 2016. She places high emphasis on mentorship, especially in the research proposal process, when embarking on a career in research and science. The power of having a good mentor has been evident throughout her career.

“I was fortunate to have an incredible mentor – Professor Oladapo Walker. His guidance and support helped make my dreams a reality, as I was selected for the TDR fellowship. Since then, I have received other grant funding for research, and I am now mentoring others – something I am very passionate about.”

During her TDR fellowship, she gained another life mentor in the form of her supervisor, Dr Ofori-Anyinam, at GlaxoSmithKline Belgium who has helped her to clarify her professional and career goals.

Preparation is key.

The famous quote by Lao Tzu served as inspiration for Dr Olaleye’s career: “The journey of a thousand miles starts with the first step.” Preparation is vital, and through careful anticipation of every probable situation, she has successfully equipped herself to rise to the top after completing her two fellowships.

“Prepare yourself in advance for the opportunities before they arise, by acquiring relevant knowledge and competence, and by building and maintaining good relationships.”

Proper planning, hard work, and perseverance fueled her to acquire some impressive achievements, including leading a research centre, coordinating its daily operations, and handling strategy development.

“As a woman, it can be daunting to rise to the top. However, it is possible with self-belief, good mentorship, and family support.”
Recognize and overcome constant challenges.

For many professional women, the balance of family and work-life remains a constant challenge. It’s an ongoing process to find a happy equilibrium and one that Dr Olaleye is handling with the welcomed support from family. Another challenge is the societal misconception of gender roles.

“Sometimes, people imply that I should be given opportunities simply because I am a woman and not necessarily because of my qualifications, as a way to show that they are not gender-biased. I do not see this as gender equity, but rather an act to be perceived as being fair. I do not want to be rewarded with positions or tasks because of my gender; I want to compete and win on a level playing field based on merit.”

Career collaboration as a springboard to endless opportunities.

Dr Olaleye still enjoys TDR’s support in her career. The skills she developed during her fellowship has enabled her to grow and nurture her leadership skills, leading to successful collaborations with international research partners.

“The TDR Clinical Research and Development Fellowship was a defining moment of my career, as it opened my mind to a world of endless possibilities. TDR’s support enabled me to focus on my passion – building the capacity of early career researchers to conduct clinical research through structured training programmes in collaboration with academia and industry partners.”

Her experience in monitoring and evaluation is being put to good use through the TDR network and the group of EDCTP-TDR fellows in Nigeria that she is currently coordinating.

“Make excellence your defining characteristic, and never settle for anything less.”

Career Highlights

2012  Master’s degree in Public Health from Obafemi Awolowo University, Nigeria

2012  Specialist obstetrician-gynaecologist

2018  Setting up a clinical trial site at Babcock University Teaching Hospital, Nigeria, and establishing the foundational requirements for an advanced biotechnology laboratory

2018  Senior Lecturer and Director of Babcock University’s Centre for Advanced Medical Research and Biotechnology (CAMRAB)

2019  EDCTP-TDR Fellows network in Nigeria

2018  Admission into a doctoral program at the University of Antwerp, Belgium

2018 – 2020  Principal investigator of an EDCTP-funded project on parasite resistance to malaria chemoprevention in pregnancy

2018 – 2019  Coordinated several training workshops for early-career researchers on grant writing and clinical research
Professor Akuffo is a powerhouse, born with an innate desire to succeed. While working at Armauer Hansen Research Institute (AHRI) in Ethiopia on leishmaniasis, she was offered a position at Sweden’s prestigious Karolinska Institute.

She permanently moved to Sweden with her husband and was awarded a TDR grant, which gave her independence to work on leishmaniasis, an area where there was very little knowledge on in Sweden at the time.

“The TDR grant allowed me to obtain some of my most pivotal scientific results about a previously unknown role of Natural Killer (NK) Cells in the control of leishmaniasis. The grant was vital.”

Since then, she remained committed to TDR and its cause; an affiliation stretching over 30 years where she has also served on various TDR committees. Now senior research advisor at the Swedish International Development Cooperation Agency (Sida), she currently serves as the Swedish representative on TDR’s Joint Coordinating Board (JCB).

The journey might not have been easy, but the harder she worked, the luckier she got. Slow and steady wins the race.

As an undergraduate student in Ghana, Professor Akuffo was headstrong in pursuing a fairly new science field – something she realizes might have been difficult to understand for many of her
lecturers that were men. She was met with much disdain by her male classmates, too, remembering how they jeered her: “You cannot get too deeply into this science because you are a woman!” She simply replied that she knew she was a woman for as long as she could remember.

Her passion for immunochemistry fueled her to work even harder when she was met with contempt in the classroom. Through hard work and perseverance, she completed her degree and received a scholarship to study immunology in London. Being a black woman in England during those years was not easy, but she held her head up high.

“Keep the focus, Hannah!”

She had many cheerleaders along the way, with one mentor being especially instrumental on her journey to success.

“Dr Jill Curtis was such an inspiration and helped me to not be ‘pulled down’ by the discriminatory behaviour of others. I want to be like her – ‘seeing’ people who others do not always wish to see as a person in their own right.”

She continued to fight the good fight and finally got her dream job in research capacity strengthening within universities in low-income countries, as well as a job in academia as adjunct professor.

Yes, you can!

For women pursuing a career in science, her advice is powerful and straightforward: know what you want to do and why it is important to you. This exercise will help you decide which battles to take on and when to move on.

“As you journey, try to be one of those women who care about other women scientists, young and old.”

---

**Career Highlights**

1985 – 1986
Armauer Hansen Research Institute (AHRI) in Ethiopia

1986 – 1987
Visiting scientist at Karolinska Institute in Sweden

2000 – 2005
Chairperson of the RCS Scientific Working Group

2006 – 2011
Member, TDR’s Scientific and Technical Advisory Committee (STAC)

2013 – present
A representative of the Swedish International Development Cooperation Agency (Sida) on TDR’s Joint Coordinating Board (including 3 years as Chairperson)
In her first year of medical school Dr Lyda Osorio was already clear on her path. She would devote her career to one mission: reducing the toll of diseases such as leishmaniasis, malaria and dengue in her country, Colombia, and across Latin America.

Now, as a respected researcher and teacher of a new generation of scientists at Del Valle University in Cali, she says there is one quality that has driven her from the start: insatiable curiosity. Osorio admits she has been asking questions incessantly since she was old enough to speak.

At first, she imagined a career devoted to interacting with individual patients and improving their lives. But during her first year of medical school she discovered that her greatest passions lay elsewhere. “I was literally seduced by research, and this goes beyond my personal curiosity.

“I discovered that committing myself to research was a road not just to answering my own questions but questions that matter to other people.”

An early start in malaria in urban areas

A graduate of the Caldas University Faculty of Medicine in 1995, Dr Osorio completed the social service required of newly graduated Colombian physicians at the International Centre for Medical Research and Training (CIDEIM) in

“Science and women fit perfectly! Be curious and keep an open mind.”

https://bit.ly/3dvnH02
Cali. She knew she would need more education to be the kind of researcher she aspired to be, so she applied for and received a grant from the government of Colombia to pursue a doctorate in epidemiology at the London School of Hygiene and Tropical Medicine.

Her subject was the effect of population mobility on transmission of malaria in urban areas. Although there has been remarkable progress on malaria, it remains one of the most serious public health problems in Colombia. After completing her doctorate in 2003, she returned to CIDEIM as coordinator of malaria research. In 2007, she moved up to a faculty position as Assistant Professor of Epidemiology at Del Valle University in Cali.

Although she had worked successfully for several years as a researcher at Del Valle University and been appointed director of postgraduate programmes in the School of Public Health, Osorio felt it was time to expand her horizons. “I needed to see how the best research and development was performed in an international context. I recognized that the best way to achieve this was to work for a while in a pharmaceutical company,” she says.

In 2013 she applied for a one-year TDR fellowship and received a placement with GlaxoSmithKline (GSK) as a postdoctoral fellow in the company’s West London office.

“I feel privileged to have had this year at GSK. I am really grateful to TDR, not just for their financial support but for helping me structure the experience at GSK,” Dr Osorio says.

Taking internationally gained knowledge home

Dr Osorio went back to her position at Del Valle in 2014 and a year later was promoted to coordinator of the doctoral programme in health sciences. “On my return, I wanted to share my experience with everyone at the university and demystify what research and development means. I gave talks and encouraged my own students about opportunities they could have in their own careers,” she says.

The challenge of being a woman in the research space only made its appearance when she became a mother. Striking a balance between family and work soon became a daily struggle. However, with a solution-driven mindset, she made adjustments in her life to not only suit herself and her family, but her career, too.

“I have limited my travelling and attending scientific events in person but have also found opportunities to do more activities with colleagues at the same institution and in the virtual world.”

Serving her country on the COVID-19 response effort

Over the past year, Dr Osorio has also played a leadership role in the COVID-19 response effort in Colombia.

As the pandemic was escalating in the country in March 2020, the mayor of Cali, the third-largest city, decided to assemble a team of health experts to tackle the rising number of cases. To lead this multidisciplinary team, he tapped Dr Osorio as the city’s epidemiologist.

They got to work tracking COVID-19 transmission, designing and implementing strategies appropriate for Cali, and conducting research to help improve the strategies and minimize the impact of the disease on the city’s people and surrounding communities.

Dr Osorio’s leadership got noticed.

A few months later, she was asked to join a team advising the state government of Valle del Cauca to help them understand the dynamics of COVID-19 transmission across all municipalities in the state, working with each of their health authorities and epidemiologists. She has also participated in the risk communication strategy and public outreach.

That’s when local media started noticing her.

“Why put a photo of me in the newspaper? I’m not Shakira,” she told Colombia’s El País.
newspaper. “It would be better to use that valuable space for a large image of those doctors working in the ICU, a photo that sensitizes people to the danger of COVID.”

El País heeded her advice and described her as “one of the people who knows the most about the behavior of the coronavirus in Cali.”

Interacting with the public has been eye-opening for Dr Osorio. “This experience has made me realize the importance of speaking out on behalf of communal values and public health,” she says. “It has also highlighted the fact that decision makers have to carefully balance the scientific information they are given with the needs of the communities they serve.”

Career Highlights

1988 – 1995 Medical doctor from Universidad de Caldas in Manizales, Colombia

1995 – 1996 Social service at the International Centre for Medical Research and Training (CIDEIM) in Cali, Colombia

1996 – 1998 Young researcher grant from Ministry of Science of Colombia in CIDEIM

1998 – 2003 Doctorate in epidemiology at the London School of Hygiene and Tropical Medicine

2003 – 2007 Coordinator of malaria research at CIDEIM

2007 – current Researcher and teacher at Del Valle University in Cali, Colombia

2013 – 2014 TDR fellowship at GlaxoSmithKline (GSK)

2015 – 2018 Coordinator of the doctoral programme in health sciences at Del Valle University
“There is something to be learnt and shared at every stage of personal development.”

A successful road is very rarely paved without its unique set of challenges. Juggling a multitude of responsibilities, from investing time in family life to building a robust career, are some of the shared challenges that many women face on a daily basis and it is no different for women working in science.

Dr Ewurama Owusu, a TDR Clinical Research and Development Fellowship alumnus from Ghana, has bravely tackled the obstacles laid down on her path by rethinking how she handles the constant pressures from society, family, and work responsibilities without neglecting her duties. She has elegantly struck the balance of nurturing her two passions: family and scientific research.

“My research work is a 24-hour responsibility. When I get home, I still need to work; but then I need to be a mother and wife, too. To give my family the attention they deserve, I only pull my laptop out to finish my work when the rest of the family goes to bed. That means less sleep, but it also means I am saved from the constant nagging feeling of being unproductive, unmotherly or unwifely.”

These challenges have intensified with the COVID-19 pandemic, as with everything else. I have had to constantly devise innovative ways of working from home and juggling family duties - one day at a time.

Paving the road for capacity-building.

Dr Owusu is a firm believer of women empowerment and encourages her peers to never hold back and to grab every opportunity that aligns with their purpose. She applied for her very first TDR Implementation Research Grant in 2014 whilst in her second year of PhD studies in Infectious Diseases at the University of Amsterdam (UvA). During her time at UvA, she learnt how to perform systematic reviews and seeing the benefits of research first-hand, she developed a burning desire to share that knowledge with her colleagues back home in Ghana.

“Winning my first TDR grant during my PhD studies made me realize that I did not have to wait to be a guru before I can contribute to capacity-building. There is something to be learnt and...”
shared at every stage of personal development. And TDR showed me that.”

The TDR Clinical Research and Development Fellowship, which has a high emphasis on encouraging women applicants, was another career highlight for Dr Owusu; one she describes as an incredible stepping stone in her career. The fellowship’s focus on women applicants has in itself created a bold, courageous attitude in her, to not only apply, but to freely share grants and fellowship opportunities with friends and colleagues. The pure nature of these grants and fellowships aim to acknowledge the significant need for employing and nurturing women in science and pave a clear road for them to compete, learn, and contribute.

Acknowledging those in support of your cause.

During her fellowship, hosted by the Foundation for Innovative New Diagnostics (FIND), Dr Owusu managed a clinical trial of highly sensitive malaria rapid diagnostic tests in pregnant women in Papua New Guinea.

Whilst working with the malaria team, she gained invaluable knowledge and experience under the supervision of Dr Xavier Ding, who entrusted her with managing the clinical trial, further contributing to her body of knowledge. This experience inspired her to share and empower her colleagues as well as graduate and undergraduate students at the University of Ghana. This she does through capacity-building workshops, seminars, and mentoring. Dr Owusu leads by example and intends to continuously and diligently share her expertise to advance science.

After 12 years in the research field, her passion for the industry continues to grow. In order to explore and understand how her home country’s health needs can be fulfilled, she asks the difficult questions and aims to get answers through continuous research. For Dr Owusu, research is more than just a job; it is a passion and a way of advancing life.

There is an Akan (one of the over 70 Ghanaian languages) proverb that she holds especially near to her heart: “Woforo dua pa a na yepia wo”, meaning that when you embark on a journey for a good cause, help will come from many unexpected places.

“There are quite a number of organizations and institutions, men and women, that support professional women working in science. When you find them, they enrich your journey, making it a whole lot easier.”

Career Highlights

**2019 – present**

Currently at the University of Ghana, leading two multi-disciplinary research teams on cerebral malaria diagnosis; and the influence of climate change on infectious diseases/malaria.

**2020**

Qualified Project Management Professional (PMP®), Project Management Institute (PMI)

**2019 – 2021**

Consultant for FIND Diagnostics in Switzerland

**2021**

Consultant Abbott Rapid Dx International (Clinical Monitor - Ghana)

**2019 – present**

Appointed as Coordinator of Special Programmes/Programme Accreditation, at the Department of Medical Laboratory Sciences, University of Ghana

**2019**

Post-fellowship internship with the Disease Surveillance Department and International Health Regulations (IHR) of the Ghana Health Service

**2018**

TDR Clinical Research and Development Fellowship (CRDF) at the Foundation for Innovative New Diagnostics (FIND), Geneva, Switzerland

**2013 – 2018**

PhD in Infectious Diseases at the University of Amsterdam – Malaria, HIV and sickle cell disease in Ghana: Towards tailor-made interventions.

**2015**

TDR Implementation Research Grant (2nd year of PhD)
Professor Rosanna Peeling is a pioneer in the field of diagnostics for infectious diseases. Her work includes diagnostics for HIV, malaria, hepatitis, sexually transmitted infections, schistosomiasis, visceral leishmaniasis, dengue, Zika and now COVID-19.

As a child, she was incredibly shy, and she recalls how her father used to ask her: “What are you so scared of?”

He then deliberately sent her out on adventures and activities outside of her comfort zone to help build her confidence. With time, Professor Peeling realized she had nothing to fear.

“I carried this almost fearless and naïve attitude into everything I did, thinking: ‘Surely, nothing is ever impossible. I just have to work out a way to do it!’ I approached everything with enthusiasm and constantly kept an open mind about trying or inventing new ways of doing things.”

Be a fearless woman, facing challenges head-on.

Professor Peeling’s fearless nature has guided her through many challenges. After taking some time off to raise her young children in the UK and Saudi Arabia, where her husband worked, she and her family went back to Canada where she embraced her passion for science and research. She worked part-time on chlamydia and enrolled in a PhD programme. To her surprise, a group of both men and women faculty members felt that she couldn’t be serious about her career since she had put it on hold earlier to have children.

“I recall someone saying that I’m just a bored housewife looking for something to do since the kids were now at school and I had time to kill. Unfortunately, that is an attitude many women may still face today.”

“Women should be open-minded about opportunities and not be locked into traditional ways of thinking when it comes to their work.”
Despite the obstacles she remained fearless and committed—just as her dad taught her all those years ago. People often approached her, while completing her PhD, to speak to women’s groups, to encourage them to continue their studies.

The support of her family, husband, and two sons remains a critical contributor towards Professor Peeling’s success. She bravely tackled some of the gender misconceptions and regulatory bottlenecks linked to being a woman in science. Receiving postgraduate scholarships was somewhat challenging since Canada had a qualifying age limit of 35 at the time. She remembers how the university’s Vice President, also a woman, reviewed the different faculties’ gender split amongst senior level staff. “In science, it was pitiful at the professor level, where only 5% were women. The engineering department was even worse with hardly any women at the top.”

“I joined a group called ‘women in science’, and we successfully petitioned to remove the age limit from fellowship applications. These days, it’s easier for women to return to work if there’s a break in their career. It’s better now in Canada, mostly because of that group of women who petitioned.”

In the UK, gender equality amongst university staff is starting to take prominence as well. During her time in the United Kingdom of Great Britain and Northern Ireland, Professor Peeling was part of an Athena Swan working group at the London School of Hygiene and Tropical Medicine. Athena Swan is a framework used across the globe to support and transform gender equality within higher education and research. In accordance to their performance, institutes are awarded bronze, silver, or gold levels – and in many countries, the level of government funding to universities is determined in part by their Athena Swan status.

A mutually beneficial relationship with TDR.

Professor Peeling’s initial knowledge of TDR centred around its fight against neglected tropical diseases, with a high emphasis on developing new treatments. Unfortunately, many of the available options were over a hundred years old, quite toxic, and not suitable for human consumption.

“TDR was a pioneer in the public-private partnership model, trying to get drug development done as a collaboration between the private and public sector. Without TDR’s provision of incentives and public sector collaboration, many of the drug companies would not even consider looking at these diseases.”

It usually requires billions of dollars and roughly 15 years of hard work to bring a new drug to the market. Sadly, many companies are not willing to invest the needed time and money, especially if they’ll be expected to donate the drug in the end. TDR’s private-public partnership model proved valuable in diagnostics too, and Professor Peeling incorporated it wherever possible in her work.

TDR is also known for its pioneering work in using community interventions to advance science and research. She recalls that TDR has a highly successful programme on the use of community-directed treatment with ivermectin for river blindness. This approach engaged communities to understand what their needs are and stimulated them to come up with innovative solutions to their health care delivery challenges.

“A lot of things that TDR did proved very inspiring to me, and I continued using those principles at work. Ultimately, the Social Innovation in Health Initiative (SIHI) as we’ve come to know it today is just a continuation of what TDR started all those years ago, before it came fashionable. I really benefitted from being part of this group, and they should be very proud of their accomplishments.”
Embrace the ‘new normal’.

COVID-19 has brought many changes in how we work, play, and live. It has provided more opportunities to work remotely, and even though it might be difficult for laboratory work, Professor Peeling believes that it has introduced more flexible hours, which will prove beneficial for women taking care of children.

“Women should look for opportunities, including more flexible working hours, and be more open-minded about their discipline of choice. Don’t be scared to explore something if you’re interested in it.”

Professor Peeling remembers an informal reunion where one of her high school classmates mentioned that she wasn’t aware that you could make a career out of diagnostic testing:

“I said, ‘well I didn’t try to make a career, it’s just something I was interested in doing and kept pursuing.’

“These days anything is possible. Don’t get locked into traditional career paths.”

Career Highlights

BSc in Physiology and Biochemistry at the University of Toronto in Canada

Masters in Medical Microbiology at the University of Manitoba in Canada.

First job was on the detection and identification of viral infections (1971-1973)

PhD at University of Manitoba, Canada


Professor, Dept of Medical Microbiology, University of Manitoba, Canada (1994 - present)

Chief of the Canadian National Laboratory for Sexually Transmitted Diseases (1998 – 2000)

TDR: STD Diagnostic Initiative (2001-9), Head, Diagnostic Research (2004-9)

Research coordinator and Head of Diagnostic Research, TDR (2007-2009)

Professor and Chair of Diagnostics Research at the London School of Hygiene and Tropical Medicine (LSHTM) (2009 – present)

Founder and Director of the International Diagnostics Centre (IDC) (2009 – present)

Co-founder of the TDR Social Innovation in Health Initiative SIHI

UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (WHO/TDR) Coordinator, Research for Neglected Priorities; and Head, Diagnostics R&D

TDR: A member of the Scientific and Technical Advisory Committee (STAC), Chair of the Scientific Working Group for the Intervention and Implementation Research group (2014 – 2016)
Member of several WHO guidelines committees; was a member of the WHO Strategic Advisory Group of Experts for in-vitro diagnostics (SAGE-IVD) (2017 – 2018)

WHO/UNAIDS Global Validation Advisory Committee (GVAC) for the Elimination of Mother-to-Child Transmission of HIV and Syphilis (2016 – present)

Advisory Panel, Global AMR Innovation Fund (2015 – present)

UK Longitude Prize, EU Horizon 2020 AMR Prize

UK Public Health Rapid Support Team Technical Steering Committee (2018 – present);

Africa CDC Laboratory Working Group for COVID-19 (2020-present)

Collaborated with Fondation Merieux to organise an Advanced Course on Diagnostics, which, over the last 10 years, has trained over 350 policy makers in 80 countries

Recipient of a YM-YWCA Women of Distinction Award, a 5NR Award for Canadian Leaders of Sustainable Development, and was the first woman scientist to be awarded the Royal Society of Tropical Medicine’s George MacDonald Medal (2014)

While in WHO, my programme on Diagnostics Research was selected as an example of best practice

Named as one of thirteen Canadians who have made a significant contribution to global public health (Lancet 2018; 391:1736-48).

Research was featured in a Discovery Channel documentary on Chlamydia infection and infertility, and in Fighting Syphilis, a documentary in the highly acclaimed BBC Kill or Cure series

Interviewed by London Jazz FM Radio as a role model for women in science on International Women’s Day; Interviewed on BBC World Service and the Today Show on Syphilis 2014; Interviewed by BBC on antimicrobial resistance; interviewed on Brazil national television on Yellow Fever outbreaks in the Americas; 2020 Interviewed by CNN, BBC, ITN, London Broadcasting, Associated Press, Bloomberg News and many other news channels and agencies on the COVID-19 pandemic

Named an honorary fellow of the Royal Society of Tropical Medicine and Hygiene (2021)
In closing

Thank you, women in science!

TDR recognizes the massive role that women play in the scientific community. Whether taking on the role of researcher, scientist, anthropologist, or academic, these powerful women each have a story to tell that will uplift and encourage not only young and upcoming researchers, but anyone that pursues a career in science. We are looking forward to expanding this research and networking platform to inspire and connect members of the TDR Global community who are passionate about finding solutions to infectious diseases of poverty.

A heartfelt thanks to all of the stakeholders involved who made this celebration of women possible.

May you find words of wisdom and encouragement in these pages. No one’s story is the same, but we all work towards our shared vision of improving the health and well-being of people through research and innovation.

- The team at TDR Global

As scientists and researchers, we are quite used to drawing up hypotheses, generalizing findings, creating inferences, and setting up research methodologies.

This compendium is by no means aiming to do the same. We are not generalizing any of the findings. The compendium is a showcase and celebration of remarkable women, and perhaps, someone might see the shared humanity that sparks an idea, interest, or solution to a pressing problem.
TDR, the Special Programme for Research and Training in Tropical Diseases, co-sponsored by UNICEF, UNDP, the World Bank and WHO, is able to conduct its work thanks to the commitment and support from a variety of funders. These include our long-term core contributors from national governments and international institutions, as well as designated funding for specific projects within our current priorities. For the full list of TDR donors, please visit our website at: https://www.who.int/tdr/about/funding/en/

THESE ARE OUR TOP CORE CONTRIBUTORS FOR THE PAST 5 YEARS:

- Sida
- UKaid
- Swiss Agency for Development and Cooperation SDC
- Belgium
- National Health Commission of the People's Republic of China

TDR IS CO-SPONSORED BY THE FOLLOWING ORGANIZATIONS: