

**“We are going to get Past this pandemic together!”**

**Professor Aman**



By Ruth Abraham

*Aman Russom is a professor working as the head of a division of Nano Biotechnology at KTH Royal Institute of Technology in Stockholm, Sweden. He was born in Eritrea and been an available resource for his country in fields related to his expertise. He believes if all of us integrate our resources, the pandemic will go away with minimum loss. As part of their research, Professor Aman and his colleagues work on a variety of diagnostic means for Sub-Saharan Africa. He has come to visit and see with his own eyes the wellbeing of his home country in the middle of the pandemic.*

- *Thank you Professor Aman, please introduce yourself to our audience.*

I am head of the Division of Nano Biotechnology at KTH Royal Institute of Technology in Stockholm, Sweden. This means that I am basically a full time researcher in the Institute. Among what we have developed, there is a testing DVD that has proven to be efficient to Covid-19 mass testing especially for low income countries. The research that I and my division do is generally about bioengineering; we try to combine nanotechnology with something we call microphysics with biomedicine and biotechnology. Therefore, Nano Biotechnology is specifically my field of expertise. And when you go deeper, we are more of engineers looking for biological applications. This means when the clinical question comes from biology, then the solution comes from technology. So, we combine those two and that

makes it a quite interdisciplinary research. There are about 20 people in my team and we are part of a bigger department. KTH is much more similar to EIT (Eritrean Institute of Technology) in Maynefi but the research that we do is comparative with what people do in Orotta Medical School, Eritrea.

- ***Draw us a picture of how you got to become the Professor you are today?***

I was born in Eritrea. I left Eritrea with my family when I was seven and half years old. We lived in Sudan for two and half years and left for Sweden when I was ten years old. So my entire education was in Sweden. I did my Masters in Chemical Engineering and my PHD in Microsystem Technology and Micro Fluids. Then I went to Boston and joined Harvard for three years for my post-doctoral degree. Then I decided to go back to Sweden, start my own research group as an assistant professor. Ever since, I have been in academia. Basically, I am one of those institutionalized researchers; never left academia.

- ***Please tell us about your achievements?***

I think the best is yet to come but I would say I have been very interested in what I do. I am a researcher essentially. Always looking for problems to solve; create one and solve it if there is none. I have been dedicated in my work; I am motivated and I work hard. I am also passionate about giving to the society. I try to engage with the Eritrean diaspora community in Sweden. I try to contribute to different association. It is my pleasure to help in any way I can. When it comes to Eritrea, I would like to give more than I do anywhere else. To me Eritrea is home, it is where I was born. Although I live in Sweden, here is where I feel home. A lot of people like me identify themselves as such. And it is not surprising that we feel that way.

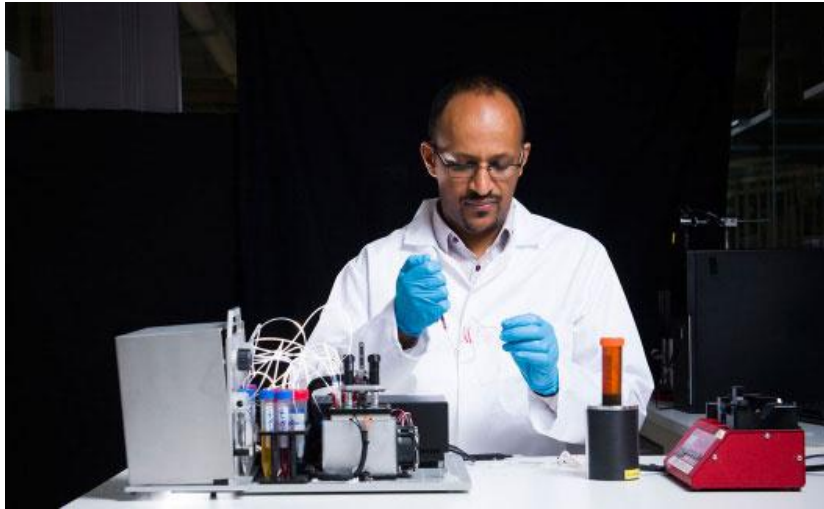
- ***How often do you come to Eritrea?***

Not as often as I want to. I was here before the pandemic in 2019 and this is actually my first international flight since the pandemic. This makes it a one and half year gap and my hope is to come here more often; at least once a year; depending on my work load.

- ***What was this visit about?***

It is more of a combination of work and vacation. I wanted to check myself because this is my first international flight since 2019. We do a lot of Covid-19 tests in my lab; so we are experts in diagnostics and in the testing. With such experience I felt it was important for me to come

in here and check on how things are going in my country and discuss with colleagues in Eritrea. So I would say it's a more work related trip than vacation.



- *How do you see Eritrea fighting the pandemic?*

That's a good question. First let me tell you that I am quite impressed with the way the government and the people are handling the pandemic because it is normally a consuming fight. Seeing people wearing masks everywhere, washing utensils in every enterprise and the style of the greetings signifies the commitment. It is quite impressive because I saw how difficult it is for people to maintain the discipline abroad. I looked at the testing strategy and on how things are generally, it is a state of the art operation. We have PCR (Polymerase Chain Reaction) facility that really gives you the results accurately and rapid antigen testing has penetrated effectively so I think nationally and globally Eritrea is doing quite well. Compared to the rest of the world, Africa has not been hit as strongly and nobody really knows why. So, this is a very open research for many of us and it is a puzzle, a blessed puzzle I would say. Because the healthcare system and infrastructure in the sub-Saharan Africa doesn't match with that of the West. However, the Western countries were quickly crippled by the pandemic. And that experience has probably helped Africa to be better prepared. It helped us to be alert about it, know what is coming our way and mobilize our resources. That is also what I see in Eritrea; everybody is washing their hands and maintaining social distancing. It is mandatory to have a mitigation plan; otherwise you cannot make it. That is what we learned in the West. Social distancing is the best way of mitigating the spread of the virus and to curb the transmission is everybody's responsibility. It seems like everyone is taking it seriously around here. People of all ages, be it children or adults are very cooperative with the

guidelines. I have been seeing school children fully armed with masks and sanitizers. So, it is important that we maintain the state and keep on working on the pandemic.

- ***Besides, the National Health Laboratory (NHL), where else have you visited in Eritrea?***

The key objective was to visit the NHL because that is much more connected to my work than anything else. I have been here for only six days, so it was my primary goal and I needed to focus on what I needed to do. And then I tried to interact with the NHL and many professors in the educational sector as well because we are also looking into collaborating not only on research but education as well. But most importantly, I met with the members of the Board of Higher Education and discussed those things. I think my trip was more beneficial for me than anyone else. And I take with me the homework of working together in the future. It helped me to get clear picture of where we are going with the task.

- ***How was your interaction with the staffs at the NHL?***

I have to say I was super excited and very interested. May be it is because this is in the middle of a pandemic but I saw the spirit; extremely high level of knowledge. It is almost shameful for me because now I know I need to do a lot of home work in order to be more resourceful to the lab.

- ***How was their feedback?***

Of course, it's important that they knew the level of experience and knowledge that I have acquired from my work at KTH. This isn't the first time I have been here. Moreover, I believe it was also a good experience for them to have somebody that spoke the same language. So, it was a very good and positive interaction. We checked on the different methods of testing and discussed the pros and cons and many other things. It was like meeting new colleagues; I hope they also appreciate our time because I had the chance to do this. When you are in diaspora, you watch the situation on TV but it is not the same. So, being able to discuss with the professionals face to face and have the opportunity to visit was a privilege to me. And I intend to pay back by contributing as we go forward.

- ***What can we expect from this visit?***

We can expect to find a way to do more. It is not only Covid-19; there are many other infectious diseases. So, I think the fact that we have full speed operational state of the art equipment due to Covid-19; gives us the luxury of asking what else we can do with it. As a researcher, it is important not to be satisfied with what we have but look forward for more. The way I see it, I think, the situation in Eritrea is under control and I am proud of what I saw.



- *What do you suggest could be done better in Eritrea?*

I suggest that we look at what the trends are and keep pace. We were hit with another wave in Europe that just started a month and half ago and we expect more of it. Despite high vaccination rates, we are now going back to restrictions to contain it. This proves that vaccination alone does not do all the work; mitigation plans on breaking the transmissions are very important. If there is one infected person, how to isolate them and stop the spread is another challenge. Of course it's not an easy task. Furthermore, as we go forward, we have to look at the strategies and always be ready to adapt depending on how the virus is behaving. Sometime along the line, it is very likely that Africa in general and Eritrea as part of it, come across the same problem. That is why it is crucial to be aware of the pandemic updates from all over the world and plan accordingly. The trends that dominate in Europe are not necessarily the same as in any country. That is why we need to have our own surveillance system on how things are developing in Eritrea, then in neighboring countries all the way to the rest of the world. That is going to help us remain prepared ahead of the hardest hit populations. But from a public health perspective, keeping up with the social distancing, wearing masks, washing hands and the overall hygiene are the best measures we can take to tackle upsurges.

- **What will we be expecting from this visit?**

I think from my point of view, it's more like being a resource when needed and a colleague in terms of brainstorming about trends that might be important to Eritrea. For instance, when new things are happening in Europe, I will be immediately reporting to say "this is what we are seeing, are you finding the same thing?" I will mostly be the colleague and be there for them both on the technical side and on the trends and prediction of the inclination of the pandemic.

But on the same note, a message to the Eritreans in diaspora is that don't sit there and wait. You have to come and interact. Because Eritrea is busy dealing with the pandemic, they are very focused and working on things according to priorities. We need to identify where we can put an input that supports their efforts. So, we need to come here, ask the right questions, and ask if you can help with it. "I am identifying areas I excel at and say hey, I think I can help here, what do you think?" that makes things easy for everyone. We have our people in the laboratory working relentlessly really hard. We have essential workers in the lab working on weekends and weekdays none-stop. I say Salute to them. So, if you get a chance like mine, come in here and let them know they are not fighting this alone; I believe it is important to them.

- **Any final remarks?**

Thank you for the great opportunity I got to interact with my colleagues in Eritrea, I appreciate it. I would also like to underline the resilience around here. We are learning a lot with time and I want to say that we are in this together. The public cooperation, clinical interventions and the testing strategies are going to be helpful for a great leap forward. Eritrea is on the right track. Salute to my people, greetings to Eritreans in diaspora that are still thinking about Eritrea and its well-being. And we look forward to the world past the pandemic; assured that we are going to get past this together.

- **Thank you for your time.**

**Eritrea Profile, 01/01/2022**