

The Education Committee
European Society of Human Genetics

To whom it may concern

Report of visit to the Cologne Centre for Genomics as part of the ESHG Mentorship award and update on the relationship.

I am very grateful for the International Mentorship Award which I received from the ESHG Education Committee and which was confirmed to me through an email by Professor Bill Newman, who is the Chair of the committee, on January 2, 2023. The award would afford me the opportunity to attend the ESHG conference in Glasgow 2023, as well as fund my travel to the Cologne Centre for Genomics, University of Cologne, Weyertal, Germany.

ESHG Conference in Glasgow, 2023

The ESHG International Mentorship award enabled me to attend the ESHG Conference at the Scottish Event Campus, Glasgow from the 10th to 13th June 2023 where I also presented a poster. As part of the award's benefits, I received a registration fee waiver for the conference, and this was a massive discount for me, a final year PhD student at the University of Nottingham.

At the conference in Glasgow, I had the exciting experience of learning about the latest research in genetics and biomedical sciences from the hundreds of posters on display, and the many interesting presentations and workshops which were well organised. I also had the opportunity to meet the Chair of the Education Committee during the Networking Evening and learned so much from him about the visions of the Society for young researchers especially from countries like Nigeria, which are currently poorly represented in genetic/genomic research.

The ESHG conferences offer opportunities for meeting new people and forming important connections, and this was another opportunity to meet vibrant colleagues from many countries and research groups doing great research.

On Monday, the 12th of June, 2023, I was presented the award certificate by Professor Newman during the award ceremonies. This was a great feeling. I felt honoured to be called up on the stage to receive the award, which shows how valued the mentorship award is (See pictures below)



Figure 1 Key activities at the ESHG Conference in Glasgow 2023. Upper left-hand side, certificate of award presented by the Chair of the Education committee; lower left-hand side, a handshake with Prof Newman upon receipt of award. Right: poster presentation at the conference.

Visit to the Cologne Centre for Genomics, Weyertal, Germany

The ESHG conference 2022 in Vienna holds an important place in my heart because it was during that conference that I made the critical connection which would take me to the Cologne Centre for Genomics in August 2023 to be mentored by my prospective mentor, Professor Dr Michael Nothnagel, who is the Director General of the Centre and a world-renowned statistical geneticist/genomicist.

I met Prof. Dr. Nothnagel through his PhD student at the time, Dr Oluyomi Adesoji, and I immediately fell in love with their research. I qualified as biomedical scientist in Nigeria, and later gained UK qualification too as a biomedical scientist. I developed a great interest in molecular genetics and went on to study MSc Molecular Genetics at the University of Nottingham, UK and am completing a PhD in brain genomics. The one area I knew that I needed to develop was in statistical genomics, first because it is a skill that I knew I needed for my PhD research. Secondly, it is a niche area which is not developed in my home country and in most of Africa.

So, when I was applying for the ESHG Mentorship Award, I reached out to Prof. Dr. Nothnagel who agreed to be my mentor. We identified the great need for developing capacity in human genomics in Nigeria, to contribute to bridging the knowledge gap in that area, and to develop research capabilities and collaborations to improve genomic data resource from Africa which is currently grossly underrepresented.

I received immense support from the University of Nottingham and planned to visit Cologne near the end of August 2023.

I arrived in Cologne on 20th August 2023, and the next day, I was at the CCG where I was warmly welcomed. I was shown round the massive genomic centre which hosts genomic services for Western Germany and saw the state-of-the-art facilities for genome sequencing as well as for single cell sequencing.

Over the next 5 days, I was introduced to statistical genomic analysis and given access to the University's virtual computing platform, Kreta. Dr Oluyomi, who is now a postdoctoral fellow at the Centre, was nearby, guiding me by the hand through the basics of analysis of genomic data using Plink and R. It was the first time I had practised coding and GWAS analysis. I continued practising and analysing data from my accommodation over the next week before returning to the United Kingdom on 2 September, 2023.

My visit to the Cologne Centre for Genomics has been transformative as it started me on my journey to developing capacity in genomic data analysis. Also, it has opened a great door for ongoing relationships with my mentor, and his university, and this has great prospects that would benefit my home University, the University of Nigeria, while

fostering collaborative interdisciplinary research with the University of Cologne in Germany.



Figure 2 Photograph with my mentor and Director of the CCG, Prof. Dr. Michael Nothnagel (Left) and Dr Oluyomi (Right).

Future Plans

Prof. Dr. Nothnagel and I have been discussing ongoing relationships. We are developing a framework for collaboration with faculties at the University of Nigeria. First, there is an ongoing consultation with his University for teaching and engagement which is expected to start in 2025. I am assembling passionate researchers at the University of Nigeria, Enugu Campus who will be interested in developing research foci for collaboration.

Once again, I am grateful to the ESHG for the opportunity granted to me to be part of this programme, and to the Division of Cells, Organisms and Molecular Genetics, Queen's Medical Centre, for supporting me for the visit in Cologne.

I am also immensely grateful to Prof Nothnagel and Dr Adesoji for accepting to mentor me, while I look forward to the interesting collaborations that lie ahead.

Thanks

Oliver C. Orji

(Nottingham, United Kingdom; 05/04/2024)