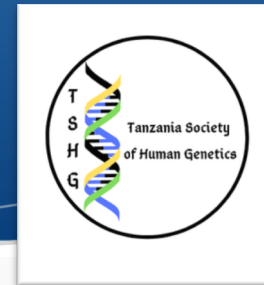


# Tanzania Society of Human Genetics (TSHG)

## Newsletter 2021.1



### Word from the Secretary

#### Changing the landscape of genetics and genomics in Tanzania!

Over the past year we have witnessed many changes in our active and evolving society. As we begin a new academic year, we look forward with excitement to further positive changes as we strive to advance our societies missions in education, advocacy and research.

The Tanzania Society for Human Genetics (TSHG) was established in November 2019 with the overall goal of pursuing and advocating for research and training, increased awareness and consultancy in human genetics and related fields. TSHG brings together scientists working on human genetics and related disciplines in Tanzania into a network to expand research in human genetics. It fosters awareness of human genetics and genomic research in Tanzania and promoting the development of effective public policy in the field.

We welcome our readers and well-wishers to join hands with us to promote genetics and genomics in Tanzania. I hope this newsletter will give you a glimpse of the many activities TSHG is undertaking and part of.

I look forward to seeing many of you in 2021!

Sincerely,  
Mohamed Zahir Alimohamed,  
TSHG Secretary.

### Inside

- Page 2 TSHG annual symposium 2020
- Page 3 Publication feature
- Page 4 News  
Opportunities  
Courses and workshops
- Page 5 Conferences and other events

*P. O. Box 65001, 1 Kipalapala street, Dar es Salaam, Tanzania*



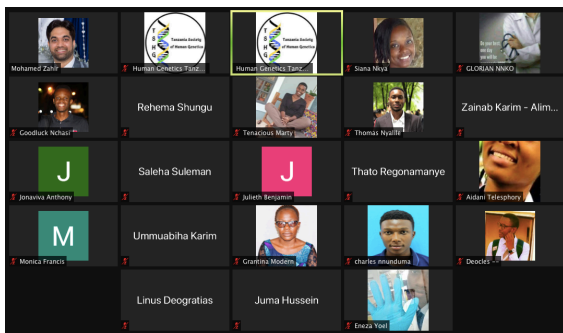
# TSHG annual symposium - 2020

TSHG annual symposium (2020) was hosted virtually on December 10 - 11<sup>th</sup> 2020 under the theme **“Human genetics and genomics in Tanzania: Implementing advocacy and public engagement”**, featuring:

- Pre-symposium “Youth in Human Health” workshop
- A symposium
- Virtual poster session and competition
- 

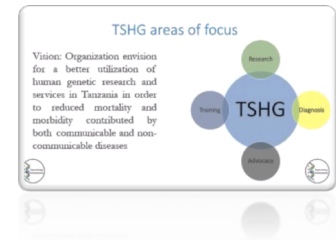
**The pre-symposium workshop** targeted early career researchers (ECRs) and students in relevant fields to human health and genetics. The workshop featured a scientific talk [on potential application of human genetics](#) knowledge and research in the African context (by Mr. Mohamed Zahir). A training on talk [preparing and presenting a scientific poster](#) (by Dr. Juma Hussein) followed the talk.

*“[The symposium] opened my eyes on the importance of genomics in Africa”  
- Abiha*



Prof. Lucio Luzzato gave a keynote address titled **“The Globin Genes, Genetics and Genomics”** including an extensive history of research on sickle cell diseases.

Participants had an opportunity to ask questions and engage in discussion with the facilitators of each presentation. The symposium ended with [closing remarks](#) from the Society president, Dr. Siana Nkya.



All recorded sessions are available here:  
<https://bit.ly/3oaGoIK>

**The symposium** featured a keynote address, a scientific talk, a talk on ethical-legal aspects of human genetics research as well as the voice of patients.

Dr. Samson Kilaza gave the first talk and it was on the [role of the human microbiome in health](#) as well as advocacy around the field. Dr. Syntia Nchangwi addressed the ethical legal issues surrounding human health research while Ms. Arafa Said shared her [experience as a patient of a genetically linked disease](#), sickle cell disease.

*“I learned about TSHG, the importance of studying human genetics and related fields as well as the status of genomics and bioinformatics in Tanzania”  
- Gloria*

Continued on page 3

The winner of the most popular **scientific poster competition** was Moshi [Shabani](#) with a poster titled "**Saving lives through voluntary blood donation: learning from medical students in Ruvuma, southern Tanzania**".

## Publication feature

Inauguration of the Tanzania Society of Human Genetics: Biomedical Research in Tanzania with Emphasis on Human Genetics and Genomics *Alimohamed et al. 2020*

### Summary

The Tanzania Society of Human Genetics (TSHG) was officially launched in November 2019 during the annual [Tanzania Health Summit](#). This manuscript describes the events leading to the inauguration of the Society as well as justification for its establishment. Link: <https://pubmed.ncbi.nlm.nih.gov/33350369/>

Baseline Evaluation of Bioinformatics Capacity in Tanzania [pre-print] *Sangeda et al. 2020*

### Summary

This paper shares the findings of a virtual survey conducted between September - November 2018 to determine the human capacity for conducting bioinformatics analyses in Tanzania. The survey concluded that the human capacity for bioinformatics analyses is low and the researchers lack [access to] tools and resources for analysis. Also, early career researchers formed the large group of people with interest in and/or skills for bioinformatics work.

Link: <https://assets.researchsquare.com/files/rs-112131/v1/ec211990-049c-4f0a-8e80-aa4b679c41a5.pdf>



In the picture, Mr. Shabani Moshi (L) received the prize for “[the most popular poster](#)”, a 2021 branded diary from Mr. Adolf Ismael (R). Mr. Ismael is an [executive board](#) member of TSHG. Read more on Shabani’s work [here](#).

**Saving lives through Voluntary Blood Donation: Learning from Medical Students in Ruvuma, Southern Tanzania**

Moshi Moshi Shabani<sup>1</sup>, Kaziba Robert Dzinwa<sup>2</sup>, Bernard Mkwana<sup>3</sup>

**Background**

About one third of all maternal haemorrhage deaths in sub-Saharan Africa are directly due to lack of blood. In Tanzania, maternal mortality ratio (MMR) has remained as high as 556 for the past 10 years. One of the reasons being severe loss of blood after birth. In addition, Tanzania has not met country's most basic need of blood. The use of medical students for blood donations can be a promising solution though it has rarely been described in Tanzania.

**Objectives**

Assessment of Attitude, Practice, willingness for future voluntary blood donation among medical students in Southern Tanzania.

**Methods**

Cross-sectional study used to engage random sampling to assess 176 students of a medical college in Sinyawa, Southern Tanzania from March to June 2018.

**Results**

**Attitude towards Blood Donation**

4000  
#Bad  
10.7%

**Practice of Blood Donation**

Reason	Count
Not interested	42 (5%)
Family Disapproval	12 (2%)
Others	1226

**Willingness to donate blood in future events**

74% Yes  
26% No

**Conclusion**

The students offered an impressive attitude towards the practice of voluntary blood donation accompanied with a better intention to donate blood. This offers the low hanging fruits for high volume of safe blood collection that will save more lives of mothers and children. The use of medical student is a promising solution for blood shortage in Tanzania because of their willingness and positive attitude towards blood donation.

**Recommendation**

The NBS and MHCDC are urged to use this opportunity to organize University Medical College events that will collect blood from medical students resulting into saving more lives of mother and children. The program can be further emphasized by other colleges in Tanzania as well as mass motivation of the community.

**WAT FORWARD**

“NERC WA MAMA NA MDCD INIYATI”

**REFERENCE**

1. Akse L, Chapman G, K. van der L, A. van der Boven H. (2018). Mother mortality reduction: How the contribution of obstetric-related neonatal deaths (BOLD) in international Journal of Gynecology and Obstetrics (IJGO). 120(1): 100-106.
2. World Health Organization (WHO). (2018). Global status report on non-communicable diseases 2018. Geneva: World Health Organization.
3. MHCDC. (2018). National Blood transfusion Service 2018/2019 annual report.
4. World Bank. (2018). Tanzania: toward ending preventable maternal mortality (TAMM) strategy. Washington, DC: International Development Research Center.

# Opportunities

## ICGEB PhD and postdoctoral fellowships



**ICGEB** International Centre for Genetic Engineering and Biotechnology

The Arturo Falaschi Fellowship Programme  
**PhD Fellowships**

Trieste ITALY | New Delhi INDIA | Cape Town SOUTH AFRICA

**ICGEB offers competitive PhD Fellowships in Life Sciences** to highly motivated scientists wishing to pursue PhD research studies in a world-class scientific environment.

**Fellowships include:**

- Participation in a top-class research programme
- Access to state-of-the-art facilities
- Participation in ICGEB Meetings, Seminars and Journal Clubs
- A competitive stipend, travel provision plus full coverage of tuition fees and health insurance

**Closing date for application: 31 March 2021**

Nationals from ICGEB Member States are encouraged to apply

<https://www.icgeb.org/activities/fellowship/>

**Information and Applications:**  
ICGEB PhD Fellowships Unit  
Via. Padriciano, 99 - 34149 Trieste, ITALY  
Tel: +39040 3732627467  
Email: Fellowships@icgeb.org | www.icgeb.org

**PhDs in the life sciences** from The Open University (UK) and the International School for Advanced Studies (SISSA) in Trieste, Italy, the Jawaharlal Nehru University in New Delhi and the University of Cape Town in South Africa.

The structure of the three-year PhD course includes:

- Intensive laboratory research activities
- Participation in seminars and communication training

More:

<https://www.icgeb.org/activities/fellowship/>  
**Deadline: 31 March 2021**

Competitive **Postdoctoral Fellowships** in the Life Sciences to highly motivated scientists wishing to pursue postdoctoral research in a world-class scientific environment.

The Fellowships consist of a very competitive package including stipend, health insurance and additional benefits. The most successful fellows will also be eligible to apply for ICGEB Early Career Research Grants to support their own research programs as young PIs upon return to an ICGEB Member State

**Deadline: 31 March 2021 & 30 September 2021**

More: <https://www.icgeb.org/activities/fellowship/>



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# News

**African genomics: The scientists unlocking cures encoded in DNA**

Read more [here](#).

**GSK and Novartis announce collaboration to support scientific research into genetic diversity in Africa**

Read more [here](#).

## Courses, workshops & training

**Online genetics courses**

A list of online genetic courses at different levels. More details [here](#).

**List of courses and meetings from ICGEB** (International Centre for Genetic Engineering and Biotechnology). Find out more [here](#).

**Deadline: 28th February**



## Conferences and other events

### ASHG's (African Society of Human Genetics) virtual career fair

**Date:** 17 February 2021

**Time:** Doors open at 10 am ET and close at 3 pm ET

**Venue:** Virtual

Meet recruiters and representatives of companies for positions in genetics and genomics. Also, One-on-One interviews, networking, resume/CV review.

More details: <https://www.ashg.org/careers-learning/ashgs-virtual-career-fair/>

### Rare diseases day

**Date:** 28 February 2021

Theme: *"Equity for people living with a rare disease"*

TSHG is collaborating with the Ali Kimara Rare Diseases Foundation (AKRDF) to host the annual [Rare Diseases Day](#) that is celebrated globally.

Watch out for more details on our and AKRDF's social media pages.

### International Symposium on Human Genetics 2021 (ISHG 2021)



**Dates:** Tuesday, 9 & Wednesday, 10 March 2021

**Venue:** Virtual Conference Platform. Sessions will last for two hours, one accommodating western time zones and the other Eastern Time zones

**Cost:** No charge

Link: <https://www.ichg2022.com/pre-congress-symposium/>

# Thank you for reading this newsletter!

Please send us relevant articles, publications, news and opportunities to be featured in our mailing list at [humangeneticstz@gmail.com](mailto:humangeneticstz@gmail.com).

Include the words “**Mailing List**” in your heading to make it easier to find it.

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