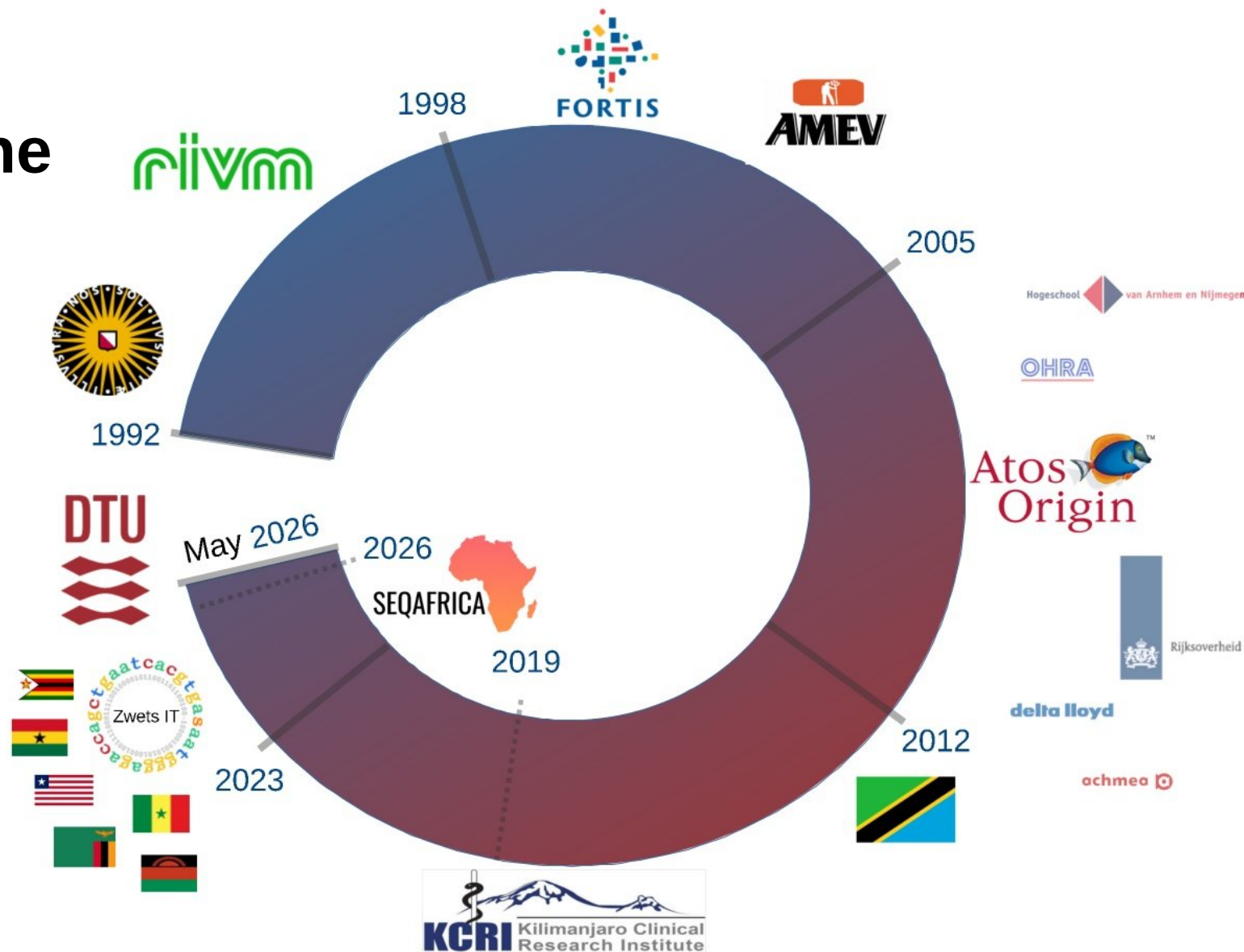


DTU



Introducing ... Marco van Zwetselaar

Timeline



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Tanzania



July 2022

July 2012

Photos by the author

The WGS Project and what followed



2021
(SeqAfrica)



2014



Photos by the author

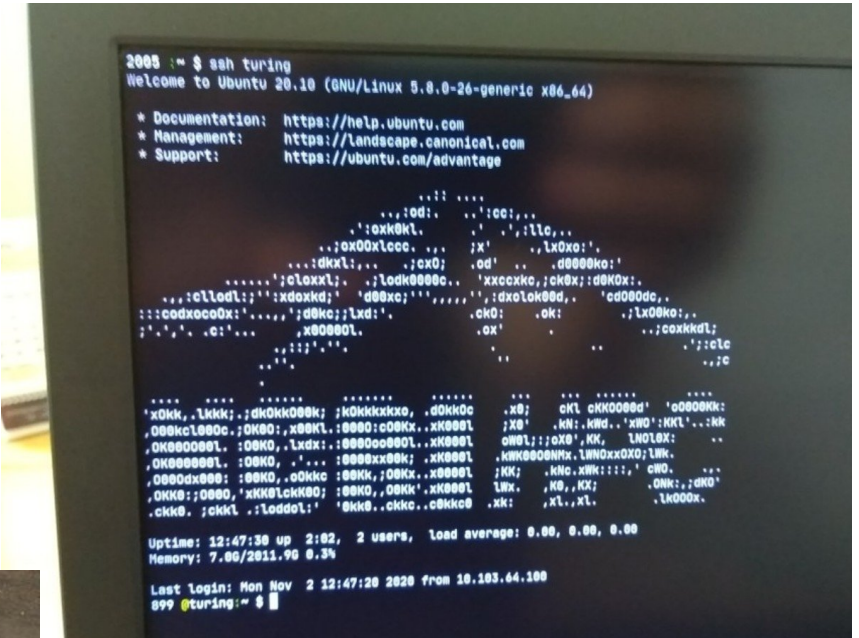
Evolution of the KCRI HPC



2014: *Genie, Crick & Watson*
 Precision 8 core 32G 1TB SSD

- CGE Tools
- PBS & Moab

2019-2021: *Turing*
 128 core, 2TB mem, 200TB HDD



2021-2023: *Babbage, Hopper*
2024: *Shannon?*

Photos by the author

SeqTanzania



2022

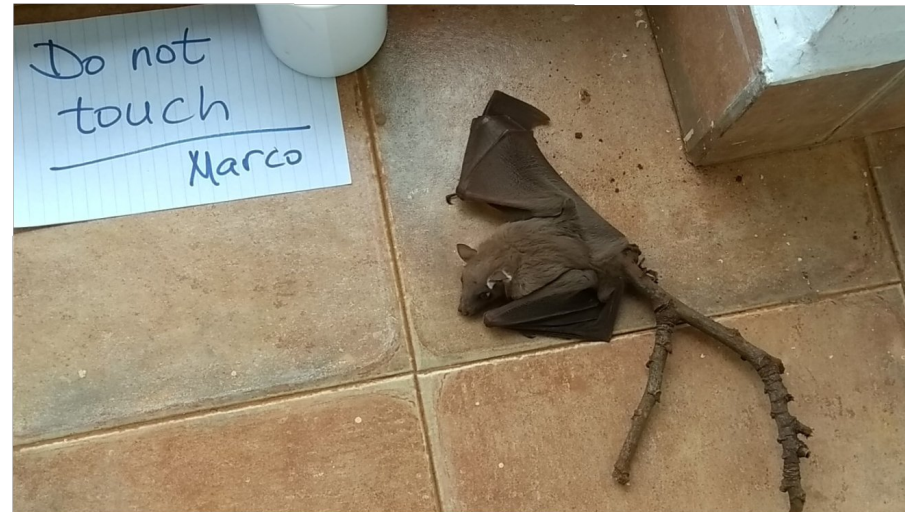


Photos by the author

Adventurous Sequencing

- The Hippo Pond in Ngorongoro
- The Top of Kilimanjaro (on the Top of Kilimanjaro)
- The Ice Core
- The Soda Lake (or that fish)
- Genomic epidemiology of bus travel
- Baobabs
- A Whale
- A Paralysed Bat
- Marburg / Ebola / Mpox
- SARS-CoV-2 ... or ...

Tanzania isn't the most hospitable country for doing Recreational Sequencing ...



Photos by the author

SeqAfrica Supported

Whole-genome sequencing of SARS-CoV-2 isolates from symptomatic and asymptomatic individuals in Tanzania

Shabani Ramadhani Mziray^{1,2*}, Marco van Zwetselaar³, Charles C. Kayuki⁴, Peter M. Mbelele², Abel N. Makubi⁵, Alex S. Magesa⁵, Riziki M. Kisonga², Tolbert B. Sonda³, Gibson S. Kibiki⁶, George Githinji^{7,8}, Scott K. Heysell⁹, Jaffu O. Chilogola^{1,3} and Stellah G. Mpagama²

Sequenced March 2021,
released January 2023 ...



Sequencing Projects

- 500 WGS & WGS Clinical isolates
- 3000 Bacterial isolates (SeqAfrica)
... among which several novel species
- First human rabies case in East Africa
- TB patient gut microbiome
- Rodent metavirome
- Sickle Cell Disease targeted amplicon
- Suspected novel toxic *Aspergillus* subspecies
- Novel frog species complete mitochondrion (well that was Saria, really)



It was lot of effort (and the occasional frustration) **but ...**

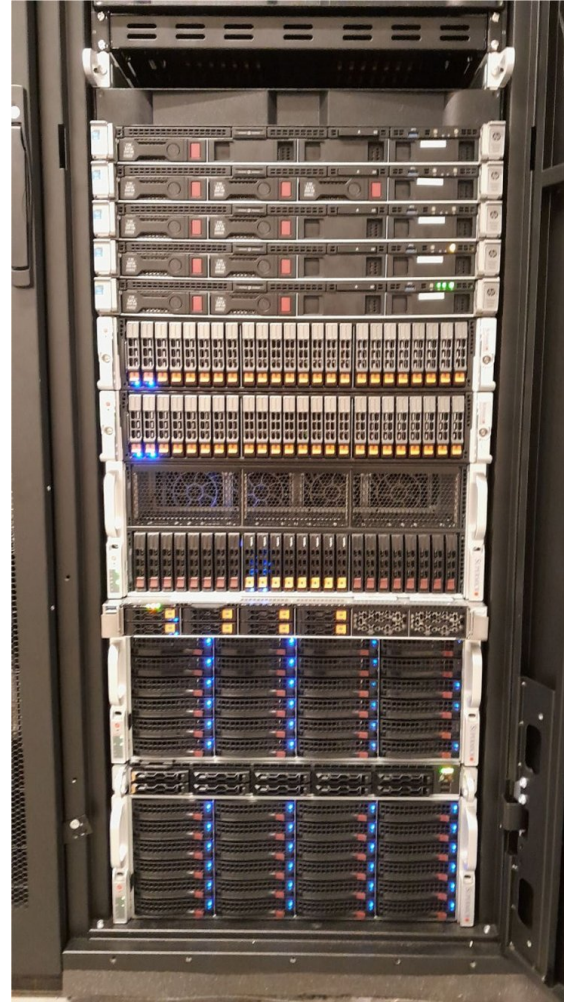
- KCRI has made great strides, starting from nothing in 2013
- Very rewarding to see the progress at labs in Zambia, Malawi, Zimbabwe, Ghana, ...
- It's just not easy to pull this off in Africa

Looking ahead

- Dune tuning & expansion
- Workshops
- Support
- GPAP



This
is
Dune



And the rest



Thank you!