

54GENE ENLISTS PARADIGM4'S SCIENCE-READY DATA SOLUTION FOR ITS AFRICAN HEALTH INFORMATION ECOSYSTEM

Jan. 12, 2021 by Paradigm4

12 JANUARY 2021: Paradigm4, specialist in scientific data management and scalable computation, has signed an agreement with 54gene, a health technology company deriving insights from the world's most diverse populations to solve some of healthcare's biggest challenges.

The agreement will allow 54gene to use Paradigm4's REVEAL™ Biobank app to explore, characterize and query the growing repository of data that constitutes 54gene's pioneering African Health Information Ecosystem, which is a highly curated, unique data source of clinical, phenotypic and genetic information from which insights can be generated that lead to new treatments and diagnostics.

Africa contains more genetic diversity than any other continent, however, fewer than 3% of the genomes analyzed to date have come from Africans¹. As a result, information that could prove beneficial to the improvement of healthcare for all populations across the world, may be missed. 54gene is working to change this by collaborating with researchers on the African continent to include the world's most genetically diverse population in global genomics research that can be used to power drug discoveries and derive therapeutic insights in healthcare for the benefit of all populations.

The REVEAL™ Biobank app that 54gene will use is built on top of Paradigm4's novel

computational database engine, SciDB™, which is purpose-built to handle large-scale

heterogeneous scientific data. The REVEAL™ Biobank provides researchers with an easy-to-use way to access their high-resolution, multi-dimensional and multi-attribute data. Users can fluidly combine diverse data sources like genotypic, phenotypic, biomedical imaging, and health records for cross-validation and

enrichment. The app is also optimized for scalable advanced analytics and machine learning.

Marilyn Matz, co-founder and CEO of Paradigm4, commented: *"We're delighted to be*

partnering with 54gene on this exceptionally important project to create an inclusive bank of genetic data for African people that has the potential to change the way pharma companies develop personalized medicine. Our REVEAL™ Biobank app accelerates integrative,

multimodal, longitudinal, population-scale data science exploration and discovery, which will provide 54gene with an unrivalled ability to interrogate its extensive and diverse datasets."

Delali Attiogbe Attipoe, Chief Operating Officer at 54gene, commented: *"We discovered*

Paradigm4 via its work with the UK Biobank and were impressed by REVEAL™ Biobank's cohort selector tool and R API with complex computing capacity. This will help us conduct detailed analysis of a variety of genotypic and phenotypic data within our African Health Information Ecosystem. Working with Paradigm4 and its intuitive app will allow us to uncover genetic connections and associations that will help support the development of therapeutics for a variety of diseases. By better understanding the genetic drivers of disease, we can ensure that African people and the global community benefit from cutting-edge medical innovation developed from the insights we have generated."

For more information about Paradigm4, visit <http://bit.ly/38k2T9m>.

ENDS

References

[1] A standardized framework for representation of ancestry data in genomics studies, with application to the NHGRI-EBI GWAS Catalog:

<https://genomebiology.biomedcentral.com/articles/10.1186/s13059-018-1396-2>

NOTES TO EDITOR

About Paradigm4:

- Based in Waltham MA.
- Multidimensional data solutions serving up science-ready data and enabling scientists to quickly analyze their data.
- Specialists in scientific data management and scalable computation.
- REVEAL™ provides end-to-end application-specific solutions transforming hypothesis and evidence generation to advance drug discovery, biomarkers, and precision medicine. Scientists can discover and confirm findings across complex, heterogeneous data from proprietary and public datasets.
- For more information about Paradigm4, visit <http://bit.ly/38k2T9m>.

About 54gene:

- Headquartered in Washington D.C, with operations in Nigeria.
- 54gene is a health technology company deriving insights from the world's most diverse populations to solve some of healthcare's biggest challenges.
- Founded in 2019, 54gene utilizes clinical, phenotypic and genetic data to improve the development, availability, and efficacy of medical products and diagnostics that will prove beneficial to all populations.
- Visit the website for more information: <https://54gene.com/index>.

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