

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Bilikis Oladimeji MD, MMCi

Previous Name: Bilikis Akindele

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Senior Director, Clinical Informatics & Innovation

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY
University of Oxford Medical School (Centre for Diabetes, Endocrinology and Metabolism, Churchill Hospital) Oxford, United Kingdom	Elective Placement Attendance	02/2010	Medical Student Exchange Program in Endocrinology
College of Medicine, University of Lagos, Nigeria	MBBS (US equiv. of MD)	10/2010	Medicine
Duke University, Fuqua School of Business	Masters - MMCi	08/2013	Clinical Informatics
Oregon Health & Science University	Certificate	06/2017	Healthcare Data Analytics
Harvard Medical School Executive Education	Certificate	10/2020	Health Care Strategy

A. Personal Statement

I am an avid believer in the power of curiosity, diligence, teamwork, and have a mindset of continuous improvement, in people, processes and technology. My three priority areas are equity, health, and education. I am a Physician and Healthcare Informatics professional with a background in Clinical Medicine, and experiences in Clinical Research, Life Sciences - Personalized Medicine, Innovation and Business of Healthcare across both academic and industry employments. I currently work as a Senior Director Clinical Informatics and Innovation at the Center for Advanced Clinical Solutions, Optum Health (part of UHG), exploring and creating solutions such as Clinical Decision Support (CDS) tools for clinical care teams that helps contribute to the attainment of Quadruple Aim in healthcare. In this role I lead our efforts around academic research for our products ranging from methods of product development to outcome evaluation. I also am a member/collaborator with the Center for Translation and Implementation Research (CTAIR) at the University of Nigeria advising on informatics and data science.

Prior to Optum, I worked at GSK as a Director for Medical Analytics and Insight Lead, using multiple data sources to unravel medical unmet needs and as a member of the leadership team influenced key decision-making. Prior to GSK, I led a team of informaticists at Duke Health that applied a variety of healthcare generated data (including EHR data) to Clinical Research, Population Health, and Quality Improvement efforts. This was in the Clinical Research Analytics/Informatics role, Research Customer

Segment of the Analytics Center of Excellence. At Duke, I also serve as a fellow for the EHR-Enabled Research Support Initiative fostering Clinical Research, Quality Improvement efforts and Data Science at Duke. I have extensive experience linking and analyzing electronic health record (EHR) data with other administrative and research study datasets. Before Duke, I worked in a Bioscience company focusing on genomics research. During the Ebola outbreak of 2014 in Lagos, Nigeria, I volunteered as a Chief Technical Officer and contributed to pooling volunteers to run the Emergency Response Center for Ebola in Lagos, Nigeria.

In all my career, I have always found a way to connect Clinical Research and Education to every role whether through my core responsibilities, volunteering, or partnerships. I have contributed to numerous abstracts, presentations, publications, and innovative solutions that expand medical knowledge and evidence, promote better and equitable care delivery, and improve health outcomes for populations. In support of education, I have advised and mentored many students and early professionals in Medicine and Informatics, was a member of TIGER (Technology Informatics Guiding Education Reform) Taskforce and Working group that that created and maintained resources for the TIGER Virtual Learning Environment (VLE) and recently co-authored a chapter in an informatics textbook: "Nursing Informatics - A Health Informatics, Interprofessional and Global Perspective".

B. Positions, Scientific Appointments, and Honors

Fulltime Positions

- 2021 to date Senior Director, Clinical Informatics and Innovation, Center for Advanced Clinical Solutions, Optum (part of United Health Group)
- 2019 to 2021 Director, Medical Analytics, and Insights Lead, US Medical Affairs GlaxoSmithKline
- 2017 to 2019 Fellow, EHR-Enabled Research Support, Duke Health
- 2015 to 2019 Research Analyst, Business/Informatics Analyst, then Team Lead, Research Customer Solution, Duke Health
- 2013 to 2015 Clinical Research Coordinator, then Manager, Clinical Research and Analytics, Proove Biosciences.
- 2010 to 2012 Medical Officer for various Hospitals in Lagos, Nigeria

Other Experiences and Professional Memberships

- 2022 to date Board Member, Engineering World Health
- 2021 to date Member/Foreign Collaborator Center for Translation and Implementation Research (CTAIR) at the University of Nigeria
- 2018 to date Member, American Medical Informatics Association (AMIA)
- 2016 to 2020 Reviewer, Journal of Child and Family Studies
- 2012 to date Member, Health Information Management Systems Society (HIMSS)

Honors

- 2009 University of Lagos, Nigeria 2007/2008 Endowment Scholarship Awards for Students with Leadership Qualities.
- 2004 to 2010 Full six-year Medical Education Academic Scholarship Shell Petroleum Development Company (**National Merit Award**)
- 2002 Bakri Award for Best Graduating Student in High School.

C. Contributions to Science

Book Chapter, Abstracts, Publications & Scientific Presentations

Clinical and Public Health Informatics

Book Chapter

Oladimeji, B.J., Okuzu, O., Olaniran, O. (2022). Nigeria: Interprofessional Health Informatics Collaboration. In: Hübner, U.H., Mustata Wilson, G., Morawski, T.S., Ball, M.J. (eds) Nursing Informatics . Health Informatics. Springer, Cham. https://doi.org/10.1007/978-3-030-91237-6_46

Peer-reviewed Publications and abstracts

These (and many others on which I am not named author on) helped to drive research in several clinical areas for research and clinical operation purposes.

1. Larsen K, Akindele B, Head H, Evans R, Mehta P, Hlatky Q, Krause B, Chen S, King D
Developing a User-Centered Digital Clinical Decision Support App for Evidence-Based Medication Recommendations for Type 2 Diabetes Mellitus: Prototype User Testing and Validation Study JMIR Hum Factors 2022;9(1):e33470 doi: [10.2196/33470](https://doi.org/10.2196/33470) PMID: [34784293](https://pubmed.ncbi.nlm.nih.gov/34784293/)
2. L E Boulware, G B Harris, P Harewood, F F Johnson, P Maxson, N Bhavsar, S S Blackwelder, S S Poley, K Arnold, **B Akindele**, J Ferranti, M Lyn, Democratizing health system data to impact social and environmental health contexts: a novel collaborative community data-sharing model, *Journal of Public Health*, , fdz171, <https://doi.org/10.1093/pubmed/fdz171> Jan. 2020
3. Monitoring the Monitors: Data-Driven Alarm Management Strategies for Clinical Devices at Duke Health **Bilikis Akindele** MBBS, MMCi, Tracey Hughes BA, MMCi Scientific paper, **podium presentation, presented by Bilikis Akindele** at AMIA 2019 Annual Summit, San Francisco CA. Mar. 2019
4. Towards reproducibility and quality in EHR-enabled data science – Methods and Strategy Bhargav Adagarla, MS, Brian McCourt, BA, Matthew Harker, MPH MBA, **Bilikis Akindele**, MBBS MMCi. **Scientific Poster Board 01 presented by Bilikis Akindele** at AMIA 2019 Annual Summit. Mar. 2019

Pain and Addiction Medicine

These studies/presentations helped to progress scientific knowledge about the contributions of both phenotypic and genomic factors to pain and addiction/Substance Abuse.

5. Anand Natasha BA, MS, Meshkin Brian, BA, Tobore Onojighofia, MD, MPH, Daniel Schwarz, MD, **Bilikis Akindele** MBBS, MMCi, John Hubbard, PT, Schwarz Daniel MD. Factors that Might Affect Pain Perception: A Study on the Role of Age, Gender and Depression on Pain Perception PM&R Journal Abstract 159, September 2015 Volume 7, Issue 9, Supplement, Page S144. Available at <http://www.pmrjournal.org/article/S1934-1482%2815%2900347-0/abstract>
6. Anand Natasha BA, MS, Meshkin Brian, BA, Tobore Onojighofia, MD, MPH, Daniel Schwarz, MD, **Bilikis Akindele** MBBS, MMCi, John Hubbard, PT Study to Comprehensively Calculate Risk of Aberrant Behavior to Opioids by Incorporating Genetic and Phenotypic Risk Factors in Pain Patients. PM&R Journal Abstract 159, September 2015 Volume 7, Issue 9, Supplement, Page S144. Available at: <http://www.pmrjournal.org/article/S1934-1482%2815%2900505-5/abstract>
7. Meshkin B., Schwarz D., **Akindele B.**, Hubbard J., Holman D., Anand N., Onojighofia T. “Role of OPRM1 in Risk of Opioid Abuse; Relationship between OPRM1 and SOAPP®-R Test”. **Presented by Bilikis Akindele**, MD, MMCi. at American Academy of Pain Medicine Annual Meeting. National Harbor, MD, March 2015.
8. Pain and Genetics: Study of Different Genes that are Prevalent in Different Pain Patients. Tobore Onojighofia; **Bilikis Akindele**; Dan Schwarz; Brian Meshkin; John Hubbard; Natasha Anand Pain Medicine. 16(8):1657–1658, AUG 2015 Issn Print: 1526-2375 Publication Date: 2015/08/01

Pharmacogenomics

These studies/presentations helped to progress scientific knowledge about the effectiveness of certain opioid medications on individual patients based on their genomic composition.

8. Meshkin B., **Akindele B.**, Schwarz D., Hubbard J., Holman D., Anand N., Onojighofia T. “Genetics and Drug Response: Role of Genetic Variation in Gabapentin Response”. **Podium Presentation by Bilikis**

Akindele, MD, MMCi. at the American Society of Interventional Pain Physician Annual Meeting. Orlando FL, April 2015.

9. Meshkin B., Schwarz D., **Akindele B.**, Hubbard J., Holman D., Anand N., Onojighofia T. "Genetics and Drug Response: Study on the Influence of Genetic Variation on Morphine Response". **Presented by Bilikis Akindele**, MD, MMCi. at American Academy of Pain Medicine Annual Meeting. National Harbor, MD, March 2015.
10. **B. Akindele**, MD; R. Alexander, PhD; M. Knauer, PhD; D. Schwarz, MD; T. Onojighofia, MD; B. Meshkin; D. Holman, MD; J. Hubbard, RPT; S.V. Nguyen, MD. "Genetics and Drug Response: Influence of variations in ANKK1 and DBH in Individual Response to Oxycodone Medication (Among Patients with Spondylosis & Allied Disorders)". **Presented by Bilikis Akindele**, MD. at the Pain Society of the Carolinas Annual Meeting. Charleston, SC, December 2014.

Mental Health Disorders

These studies/presentations helped to progress scientific knowledge about the genetic factors responsible for multiple Mental Health Disorders.

11. Onojighofia T., Meshkin B., Schwarz D., **Akindele B.**, Smith D., Deer T., Webster L., Zoleikhaeian A., Hua M., Hubbard J., Chang S. "Study Investigating a Genetic Dependence Risk Index of Variants Effect on Risk for Co-morbid Psychiatric Disorders Among Chronic Pain Patients." Presented at American Academy of Pain Medicine Annual Meeting 2014, Phoenix AZ by Dan Schwarz MD.
12. Onojighofia T., Meshkin B., Schwarz D., **Akindele B.**, Smith D., Deer T., Webster L., Zoleikhaeian A., Hua M., Hubbard J., Chang S. "Study Investigating a Genetic Dependence Risk Index of Variants Effect on Risk for Co-morbid Psychiatric Disorders Among Chronic Pain Patients." Presented at American Academy of Pain Medicine Annual Meeting 2014, Phoenix AZ by Dan Schwarz MD.
13. Brian Meshkin; Daniel A. Schwarz, MD; **Bilikis Akindele**, MD, MMCi; Sanford Silverman, MD; Derrick Holman, MD; John Hubbard, RPT; May Hafez, MD; Natasha Anand, MS; Svetlana Kantorovich, PhD; Tobore Onojighofia, MD, MPH. 5HT2a and Mental Health Disorders: Multi-Center Study to Determine Association of Genetic Polymorphisms and Mental Health Disorders. Society of Biological Psychiatry 70th Annual Scientific Meeting, May 14-16 in Toronto, Ontario - Canada

Medical School Dissertation - Maternal and Child Health

Oladimeji B., Knowledge and Attitude to Antenatal Care among Women of Ishagatedo Community in Oshodi/Isolo Local Government, Lagos State. Presented by **Bilikis Oladimeji** at the Medical Women Association of Nigeria Conference Lagos, 2010.

In addition to the above, there are several other publications that I lend my expertise through data abstraction, being EHR data SME and Supervision, informatics advisory without authorship.

RESEARCH GRANT SUPPORT

A few of the Studies I supported or contributed to in my Informatics role, on which I am often listed as Key Data and Informatics personnel on either in sponsorship application or internal Duke IRB, include:

The Duke-UNC Prevention Epicenter Program
CDC Prevention Epicenters Program - 1U54CK000164
PI: Deverick Anderson

Defining Measures of Impact for Antimicrobial Stewardship Programs in Community Hospitals
AHRQ - K08 HS023866-01
PI: Rebekah Moehring

EMPOWER Study in collaboration with University of Cincinnati
NIH Subaward - 1R01-DA044248-01
Duke Co-PI: Rowena J. Dolor