

## Curriculum Vitae

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**Timothy Amukele MD, PhD**

ICON Laboratory Services  
Farmingdale, NY (USA)

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**Education**

MD PhD, Albert Einstein College of Medicine, Bronx, NY

**Doctor of Medicine (2006)**

**Doctor of Biochemistry (2003)**

The City College of the City University of New York (Biochemistry, Music)

**Bachelor of Science with High Honors (1996)**

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**Training**

2019	Leadership Development Program (LDP) - LDP is a year-long Johns Hopkins Medicine sponsored leadership development initiative including Strategic Planning, Negotiation, Influencer/Behavior change strategies, Team Development, Public speaking etc.
2009-2010	Fellowship in International Clinical Laboratory Medicine - Department of Laboratory Medicine, University of Washington Medical Center, Seattle WA
2008-2009	Chief Resident, Department of Laboratory Medicine, University of Washington Medical Center, Seattle, WA
2006-2009	Residency in Clinical Pathology, University of Washington Medical Center, Seattle WA

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**Experience**

<b>Vice President, Global Medical Director</b>	ICON ILS ICL Laboratory	Jan 2021 to Present
<b>Chief of Pathology</b>	Johns Hopkins Bayview Medical Center, Baltimore, MD	Mar 2017 to Dec 2020
<b>Medical Director of the Clinical Labs</b>	Johns Hopkins Bayview Medical Center, Baltimore, MD	Feb 2016 to Dec 2020
<b>President</b>	Pathologists Overseas Inc.	Jan 2018 to Present
<b>Associate Director for Clinical Pathology Programs</b>	Pathologists Overseas Inc.	2013 to Jan 2018
<b>Medical Director of the Clinical Labs</b>	Infectious Diseases Institute, Kampala, Uganda	2013 to 2020
<b>Medical Director of the Clinical Labs</b>	JHU-Malawi CTU, Blantyre, Malawi	Mar 2016 to Jan 2021

<b>Laboratory Co-Investigator</b>	JHU-Malawi CTU, Blantyre, Malawi	Jul 2011 to Mar 2016
<b>Associate Professor of Pathology</b>	Johns Hopkins University	Nov 2018 to Dec 2020
<b>Assistant Professor of Pathology</b>	Johns Hopkins University	Jul 2013 to Nov 2018
<b>Instructor of Pathology</b>	Johns Hopkins University	Jul 2010 to Jun 2013

### Licenses and Boards

#### Medical License:

Washington State – Initial issuance 2007. Expired

State of Maryland, D0071075 – Initial issuance 2010. Current expiration date 9/30/2022

#### Specialty Boards:

American Boards of Clinical Pathology – Initial issuance 7/24/2009. Date recertified 11/11/2019

### Publications

#### Peer-reviewed Original Research

- Amukele TK**, Schramm VL. Ricin A-chain substrate specificity in RNA, DNA, and hybrid stem-loop structures. *Biochemistry*. 2004 May 4;43(17):4913-22. PMID: 15109249
- Roday S, **Amukele T**, Evans GB, Tyler PC, Furneaux RH, Schramm VL. Inhibition of ricin A-chain with pyrrolidine mimics of the oxacarbenium ion transition state. *Biochemistry*. 2004 May 4;43(17):4923-33. PMID: 15109250
- Amukele TK**, Roday S, Schramm VL. Ricin A-chain activity on stem-loop and unstructured DNA substrates. *Biochemistry*. 2005 Mar 22;44(11):4416-25. PMID: 15766271
- Amukele TK**, Hoofnagle AN, Astion ML. Use of a resident on-call database to characterize failures in communicating critical laboratory results. *Clin Chem*. 2009 Aug;55(8):1590-1. PMID: 19498048
- Amukele TK**, Ferrell C, Chandler WL. Comparison of plasma with whole blood prothrombin time and fibrinogen on the same instrument. *Am J Clin Pathol*. 2010 Apr;133(4):550-6. PMID: 20231607
- Amukele TK**, Baird GS, Chandler WL. Reducing the use of coagulation test panels. *Blood Coagul Fibrinolysis*. 2011 Dec;22(8):688-95. PMID: 21934488
- Amukele TK**, Michael K, Hanes M, Miller RE, Jackson JB. External quality assurance performance of clinical research laboratories in sub-saharan Africa. *Am J Clin Pathol*. 2012 Nov;138(5):720-3. PMID: 23086773S
- Amukele TK**, Soko D, Katundu P, Kamanga M, Sun J, Kumwenda NI, Taha TE. Vitamin D levels in Malawian infants from birth to 24 months. *Arch Dis Child*. 2012 Dec 7. PMID: 23220204
- Elbireer A, Opio A, Sandagiua H, Bagenda D, Jackson JB, **Amukele TK**. The Good the Bad and the Unknown: Quality of Clinical Laboratories in Kampala, Uganda. *PLoS One*. 2013 May 30;8(5) PMID: 23737993
- Amukele TK**, Lee Shroeder. Medical laboratories in sub-Saharan Africa that meet international quality standards. *Am J Clin Pathol*. 2014 Jun;141(6):791-5.
- Amukele TK**, Lee Shroeder, J. Brooks Jackson, Ali Elbireer. Most clinical laboratory testing in kampala occurs in high-volume, high-quality laboratories or low-volume, low-quality laboratories: a tale of two cities. *Am J Clin Pathol*. 2015 Jan;143(1):50-6
- Kalyesubula R, Lunyera J, Makanga G, Kirenga B, **Amukele TK**. A 4-year survey of the spectrum of renal disease at the Mulago Hospital Renal Outpatient Clinic, Uganda *Kidney International* 2015 Mar; 87:663
- Amukele TK**, Sokoll LJ, Pepper D, Howard DP, Street J. Can Unmanned Aerial Systems (Drones) Be Used for the Routine Transport of Chemistry, Hematology, and Coagulation Laboratory Specimens? *PLoS One*. 2015 Jul 29;10(7) PMID: 26222261

14. Schroeder L, Elbireer A, Jackson JB, **Amukele TK**. Laboratory Diagnostics Market in East Africa: A Survey of Test Types, Test Availability, and Test Prices in Kampala, Uganda. *PLoS One*. 2015 Jul 30;7 PMID: 26226183
15. Schroeder LF, LaBarre P, Weigl BH, **Amukele T**. The Next Phase for Point-of-Care Testing in Resource-Limited Settings: Noncommunicable Disease. *Point of Care The Journal of Near-Patient Testing & Technology* Jun 2016
16. Schroeder LF, Guarner J, Elbireer A, Castle PE, **Amukele T**. Time for a Model List of Essential Diagnostics. *N Engl J Med*. 2016 Jun 30;374(26):2511-4 PMID: 27355530
17. **Amukele TK**, Street J, Carroll K, Miller H, Zhang SX. Drone Transport of Microbes in Blood and Sputum Laboratory Specimens. *J Clin Microbiol*. 2016 Oct 54(10):2622-5. PMID: 27535683
18. **Amukele T**, Ness PM, Tobian AA, Boyd J, Street J. Drone transportation of blood products. *Transfusion*. 2016 Nov 11. doi: 10.1111/trf.13900. PMID: 27861967
19. **Amukele T**, Lee Schroeder What is the Value of Clinical Laboratory Testing? *J Applied Lab Med*. 2017 Jan. doi: 10.1373/jalm.2016.022251.
20. **Amukele T**, Africa CDC: Establishing Integrated Surveillance and Laboratory Networks for Rapid Disease Detection and Response, Control, Prevention, and Clinical Care in Africa. *Afr J Lab Med*. 2017;6(1):638. doi:10.4102/ajlm.v6i1.638.
21. **Amukele T**, Hill C, Guarner J. Creation and evaluation of a laboratory administration curriculum for pathology residents. *Am J Clin Pathol*. 2017 Oct 1;148(4):368-373 PMID:28927229
22. **Amukele T**, Hernandez J, Snozek C, Wyatt R, Douglas M, Amini R, Street J. Drone Transport of Chemistry and Hematology Samples over Long Distances. *Am J Clin Pathol*. 2017 Nov 2;148(5):427-435 PMID: 29016811
23. **Amukele T**, Tewelde M, Riley S. Voices from the Field: Interviews with Global Health Pathology Volunteers. *Clin Lab Med*. 38 2018 Mar;38(1):11-20. PMID: 29412875
24. **Amukele T**, Jones R, Elbireer A. Test Accuracy and Test Cost in Clinical Laboratories in Kampala, Uganda. *Am J Clin Pathol*. 2018 Apr 25;149(6):522-529. PMID: 29659678
25. Schroeder LF, Guarner J, **Amukele T**. Essential Diagnostics for the Use of World Health Organization Essential Medicines. *Clin Chem*. 2018 Jun 5. [Epub ahead of print] PMID: 29871869
26. Burns KH, Borowitz MJ, Carroll KC, Gocke CD, Hooper JE, **Amukele T**, Tobian AAR, Valentine A, Kahl R, Rodas-Eral V, Boitnott JK, Jackson JB, Sanfilippo F, Hruban RH. The Evolution of Earned, Transparent, and Quantifiable Faculty Salary Compensation: The Johns Hopkins Pathology Experience. *Acad Pathol*. 2018 Jun 11; PMID: 29978019
27. Jeannette Guarner, Lee F Schroeder, Timothy K **Amukele**. Three Approaches to Creating an Essential Diagnostics List *Am J Clin Pathol*. 2019 May; 151(5): 443–445. PMID: 30551217
28. **Amukele T**. Current state of drones in healthcare: challenges and opportunities *Journal of Applied Laboratory Medicine* 2019 Sept; 14 (2): 296-298. PMID: 31639681
29. **Amukele T**. The economics of medical drones *Lancet Glob Health*. 2020 Jan;8(1):e22. PMID: 31839132
30. Sarah E Wheeler, Octavia M Peck Palmer, Dina N Greene, Jason Y Park, Gabrielle Winston- McPherson, **Timothy K Amukele**, Eliseo J Pérez-Stable. Examining Laboratory Medicine's Role in Eliminating Health Disparities *Clinical Chemistry*. 2020 Oct;66(10): 1266–1271. PMID: 32888006
31. Fongwen N, Boeras D, Peeling RW, **Amukele T**, Connected Diagnostics Systems: The Future of Disease Control in Africa. *Afr J Lab Med*. Accepted.
32. Caleb L. Ward, Marissa Z. Guo, **Timothy K. Amukele**, Abass Abdul-Karim, Lee F. Schroeder, Availability and Prices of WHO Essential Diagnostics in Laboratories in West Africa: A Landscape Survey of Diagnostic Testing in Northern Ghana *Journal of Applied Laboratory Medicine* 2021 Jan; 6(1): 51–62, <https://doi.org/10.1093/jalm/jfaa190>
33. Kushbu Patel, Joe El-Khoury, Ana-Maria Siundic, Christopher Farnsworth, Franziska Broell, Jonathan Genzen, and **Timothy K Amukele**. Evolution of Blood Sample Transportation and Monitoring Technologies *Clinical Chemistry*. 2021 Accepted

### Review Articles

1. Schroeder LF, Guarner J, **Amukele T**. Essential Diagnostics for the Use of World Health Organization Essential Medicines. *Clin Chem*. 2018 Jun 5. [Epub ahead of print] PMID: 29871869

### Case Reports – None

### Book Chapters, Monographs

1. **Amukele T**, Tuggey R (eds). Principles of Quality Assurance in the Clinical Laboratory. A short textbook, to teach Quality Assurance and Quality Control practices to laboratory workers in resource-challenged settings. In collaboration with Washington University Department of Immunology and Pathology, University of Washington Department of Laboratory Medicine, and Pathologists Overseas. 2010 Jan

### Online Teaching

- 11/1/10 **Amukele T**, Astion M, Wilcock C (eds). Introduction to Analytic Quality Assurance. It was published as a paid subscription on [www.medtraining.org](http://www.medtraining.org) —the #1 provider of continuing education content for clinical laboratory scientists in the world. The course has 77,797 test completions and 42,918 continuing education hours as of March 22, 2018.
- 5/13 **Amukele T**. - 221.649.81 E-HEALTH AND M-HEALTH: Using Information Technology to Improve Health in Low and Middle-Income Countries. Johns Hopkins School of Public Health
- 12/1/16 'Delivering Health in Remote Areas – Case Study using Drones' presented at School of Public Health and Community Medicine, University of New South Wales– Lecture given via Skype from Blantyre, Malawi
- 6/12/18 'Medical sample transport by drones' presented at Department of Clinical Laboratory Science School of Health Professions The University of Texas Medical Branch School of Public Health and Community Medicine – Lecture given via Skype

### Books, Textbooks

Global Health and Pathology, An Issue of the Clinics in Laboratory Medicine, Volume 38-1. 1st Edition. Timothy Amukele et.al., Dan Milner, Editor. Hardcover ISBN: 9780323581585

### Letters and Other Publications

- 3/15 Kalyesubula R, Lunyera J, Makanga G, Kirenga B, **Amukele TK**. A 4-year survey of the spectrum of renal disease at the Mulago Hospital Renal Outpatient Clinic, Uganda *Kidney Internat*. 2015 Mar; 87:663
- 6/24/16 **Forbes** – Why The World Needs An Essential Diagnostics List-  
<http://www.forbes.com/sites/sciencebiz/2016/08/04/why-the-world-needs-an-essential-diagnostics-list/#2cd3de1d79cd>
- 10/25/16 **THE CONVERSATION** – Africa has an essential medicines list. Now it needs one for diagnostics – <http://theconversation.com/africa-has-an-essential-medicines-list-now-it-needs-one-for-diagnostics-66973>
- 07/13/20 **THE CONVERSATION** – African countries need cheaper COVID-19 tests: here's how to get them – <https://theconversation.com/african-countries-need-cheaper-covid-19-tests-heres-how-to-get-them-141315>

### Editorials

1. **Amukele T**. The economics of medical drones *Lancet Glob Health*. 2020 Jan;8(1):e22. PMID: 31839132
2. **Amukele T**, Lee Schroeder. What is the Value of Clinical Laboratory Testing? *J Applied Lab Med*. 2017 January. doi: 10.1373/jalm.2016.022251.
3. Jeannette Guarner, Lee F Schroeder, Timothy K **Amukele**. Three Approaches to Creating an Essential Diagnostics List *Am J Clin Pathol*. 2019 May; 151(5): 443–445. PMID: 30551217

4. Sarah E. Wheeler, Octavia M. Peck Palmer, Dina Greene, Jason Y. Park, Gabrielle Winston-McPherson, **Amukele T**, Eliseo J. Pérez-Stable. Examining Laboratory Medicine's Role in Eliminating Health Disparities *Clin Chem*. 2020 June *In Press*

### **Media Releases or Interviews**

- 7/29/15 Vice Magazine (Online) – <http://motherboard.vice.com/read/drones-can-be-used-to-fly-blood-samples-to-remote-medical-clinics>
- 7/30/15 The Washington Post – <https://www.washingtonpost.com/news/to-your-health/wp/2015/07/30/how-drones-can-improve-access-to-medical-care/>
- 2/19/16 CNN – The good drones: air delivery of blood samples could save lives  
<http://www.cnn.com/2016/02/19/health/drones-deliver-healthcare-samples/>
- 5/2/16 TEDxClaremontColleges – Drones and the Future of Medicine-  
<https://www.youtube.com/watch?v=0g5OI1xCwc0>
- 6/24/16 Associated Press – Use of drones for disaster missions put to the test  
<http://www.dailymail.co.uk/wires/ap/article-3657684/Use-drones-disaster-missions-test.html>
- 6/24/16 Forbes – Why The World Needs An Essential Diagnostics List –  
<http://www.forbes.com/sites/sciencebiz/2016/08/04/why-the-world-needs-an-essential-diagnostics-list/#2cd3de1d79cd>
- 1/1/17 The Baltimore Sun – Drones could soon get crucial medical supplies to patients in need –  
<http://www.baltimoresun.com/health/maryland-health/bs-hs-drones-for-blood-20161223-story.html>
- 5/9/17 ABC – Drones could soon deliver medical supplies and blood samples, changing health care –  
<http://www.abc2news.com/news/health/drones-could-soon-deliver-medical-supplies-and-blood-samples-changing-health-care>

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## **Additional Skills and Qualifications**

### **EDUCATIONAL ACTIVITIES**

#### **Teaching**

Classroom Instruction at the University of Washington

- 2008 Lab M 418 – ‘Topics in Clinical Chemistry’, 1-hr lecture on "Lipid Analysis and Result Interpretation"
- 2008 Lab Medicine Residency ‘Core’ Curriculum, 4-hr workshop on "Principles of Laboratory Medicine"
- 2008 Lab Medicine Residency ‘Core’ Curriculum, 1-hr workshop on "Electronic Resources for Residents"
- 2008 Lab M 418 – ‘Topics in Clinical Chemistry’, 1-hour lecture on "Point of Care Testing"
- 2007 Lab M 418 – ‘Topics in Clinical Chemistry’, 1-hour lecture on "Lipid Soluble Vitamins"

Classroom Instruction at Johns Hopkins University School of Medicine

- 2011 Second Year Medical Student Course, ‘Genes to Society’, small group instructor. Johns Hopkins University, Baltimore, MD

#### **Clinical Instruction**

- 2/16-12/20 Designed and run the 2-month Bayview senior rotation in clinical laboratory management (CLM), designed to teach the principles and practice of laboratory management to the residents in Pathology before their exit from training. The curriculum, which consists of didactic lectures, validation of new tests, quality improvement projects, clinical care, and novel interactive online eLearning modules, was designed in collaboration with the residency program director for Pathology at Emory University School of Medicine and has been deployed in both institutions for two years. Results of the deployment, as well as



the eLearning modules and the full curriculum, were published early this year. (Guarner, Am J Clin Pathol. 2018)

10/10-2/17 Teaching of pathology residents during their 2-month Diagnostic Immunology rotation

**Web-based CME Conferences** – None

## SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

### WITHIN JHM:

#### 06/2017 – 12/2018 Co-chair Department of Pathology CP Customer Service Task Force

- **Background** - Formed in May of 2017 by administrator Allen Valentine bringing forth an initiative by Dr. Karen Carroll, former Vice-Chair of Clinical Affairs.
- **Scope** - The task force had representation/participation from JHH laboratories (Core, Microbiology, Transfusion Medicine, and Molecular), BMC, HCGH, SMH, SH, JH IT, JH CQI, and JHML (outreach).
- **Process**
  - Used historic 'lost specimen' data to establish a custom electronic tracking tool about sample location in transit.
  - Workflows rolled out to the 5 hospitals and JHML sites (GSS, WM, EBMC, Odenton)
  - HPO procedure published and in use since 2018
- **Goals** (i) Improve real-time inter-hospital/JHML sites specimen tracking in order to reduce occurrences of delayed or lost specimens (ii) Establish a real-time specimen tracking system.
- **Impact** – Went from median of 12 to zero lost specimens **monthly** between JHBMC and JHH.

#### 2016 Improved efficiency and decreased cost of doing Procalcitonin testing at JHBMC

In 2016, the testing was done in the JHBMC laboratory on an instrument dedicated to doing only this test, and all providers could order testing. We moved the test to the Roche line at JHH, and instituted a strict algorithm for ID-led ordering and monitoring. The algorithm has just been expanded to include pharmacists. This initiative freed up the precious floor space in the JHBMC laboratory which is not being used for Thromboelastography, COVID and Flu/RSV testing; increased the clinical utility of this test leading to a publication; and saved approximately \$100,000/yr in reagent costs.

#### 2018 Established a more clinically-appropriate hemolysis cutoff at JHBMC

We performed a series of retrospective and prospective studies to determine if our hemolysis cut off was appropriate. Based on comparison to JHH as well as clinical outcomes, we determined that our cutoff was too stringent. Cut hemolysis (and subsequent rejection and redraw) from 12 to 6% hospital-wide. Estimated savings in additional nursing and lab labor and materials of \$900,000/yr.

### International Program Building/Leadership:

2012-Present Makarere University-Johns Hopkins Univ. Research Collaboration, Kampala, Uganda; & The College of Medicine-Johns Hopkins Research Project (COM-JHP) in Blantyre, Malawi  
**Role:** Medical Director

**Achievement:** One of Johns Hopkins most unique and recognizable aspects is its large international research footprint. Johns Hopkins has a presence in over 30 countries and has long-term institutional experience in successful performance of international research. Two of the largest JHU SOM's programs are in Uganda and Malawi respectively and account for over \$55 million in combined funding in the 6 years in which Dr. Amukele has been the medical director of the laboratories in both countries. The laboratory in Kampala, Uganda was the first in Africa to be accredited by the College of American Pathologists. I have maintained this for three 2-year inspection cycles (6 years).

## ORGANIZATIONAL ACTIVITIES

### Departmental Administrative Appointment

2013-2017	Residency Training Committee
2015-2016	Resident / Fellow Quality and Safety Forum
2015-2017	Pathology Grand Rounds Coordinator
2017-Present	Laboratory Advisory Committee. This is a hospital-wide committee. I serve as Chair and Convener
2017-Present	Tissue Audit & Transfusion Review committee. This is a hospital-wide committee. I serve as Convener
2017-Present	Bayview Medical Center Medical Advisory Board. This is a hospital-wide committee. I serve as a member
2017-Present	Department of Pathology Operations Group. This is a Johns Hopkins Health System (JHHS) committee focused on Pathology-related issues across the health system. JHHS is comprised of 5 sister hospitals. I serve as a member.
2018-Present	Africa Working Group of the American Association of Clinical Chemistry

### Institutional Administrative Appointment – None

### Editorial Activities

#### Editorial Review Board:

2013-2019	Associate Editor - American Journal of Clinical Pathology
2015-present	African Journal of Laboratory Medicine

#### Ad Hoc Reviewer:

2012-present	American Journal of Clinical Pathology
2012-present	Public Library of Science
2013-present	International Health
2015-present	African Journal of Laboratory Medicine
2016-present	Practical Laboratory Medicine
2016-present	Journal of Applied Laboratory Medicine
2017-present	Lancet
2019-present	Lancet Global Health
2020-present	Nature Biomedical Engineering
2019-present	BMJ Global Health
2019-present	Clinical Chemistry

## RECOGNITION

### Honors

1994 – 1996	Undergraduate Research Fellowship, Minority Biomedical Research Fellowship
1996	Sigma XI - The Scientific Research Society
1996 – 2006	Medical Scientist Training Program Fellowship, National Institutes of Health
1998 – 2003	Molecular Biophysics Training Grant, National Institutes of Health
1997 – 2002	NIH National Research Service Award – Predoctoral Fellowship for Minority Students
2006	Alfred Angrist Prize for excellence in Pathology research
2007	Paul E. Strandjord Young Investigator Award, Association of Clinical Laboratory Scientists and Physicians
2009	'Day on the Hill' Grant from American Society of Clinical Pathology
2009	Quality Assurance Training and Monitoring Grant, Beckman Coulter Foundation
2009	Paul E. Strandjord Young Investigator Award, Association of Clinical Laboratory Scientists and Physicians

2013 American Association of Clinical Chemistry's Management Sciences and Patient Safety Division's 2013 Abstract Award; given for abstract entitled "Clinical Laboratory Testing Pattern in Kampala, Uganda: Test Volumes, Test Menus, and Alignment with Disease Burden"

### Invited Talks and Seminars – National

1995 Gordon Research Conference on Proteins. Characterization of the N and C fragments of *E. Coli* thioredoxin and their reconstituted complex via CD, fluorescence and NMR

2003 American Chemical Society 226<sup>th</sup> National Meeting, New York. Ricin A-chain Substrate Specificity and the Role of Binding Interactions in Catalysis (poster presentation)

2006 University of Washington Department of Laboratory medicine Grand Rounds. Problems associated with laboratory testing in ambulatory patients with Multiple Medically Unexplained Symptoms

2007 Academy of Clinical Laboratory Physicians and Scientists (ACLPS) 42<sup>nd</sup> Annual Meeting, San Diego. Evaluation of the use and utility of the Coagulation Screen

2007 ACLPS 42<sup>nd</sup> Annual Meeting, San Diego Use of a resident on-call database to characterize communication failures in critical value reporting

5/09 International Training and Education Center on HIV (I-TECH) 2009 Clinical Summit, Seattle WA. Improving The Clinical Laboratory in Low-Resourced Settings

6/09 ACLPS 44<sup>th</sup> Annual Meeting, Redondo Beach, CA; Development and Validation of a Laboratory Test for Glycosylated

6/09 ACLPS 44<sup>th</sup> Annual Meeting, Redondo Beach, CA; Development and Validation of a Laboratory Test for 3-Betahydroxybutyrate

6/09 ACLPS 44<sup>th</sup> Annual Meeting, Redondo Beach, CA. Use of an Online Learning Management System to teach a Clinical Lab Course for Family Medicine Residents

6/10 ACLPS 45<sup>th</sup> Annual Meeting, Nashville, TN. Establishing a Quality Assurance System in a Resource-Limited Setting

6/11 ACLPS 46<sup>th</sup> Annual Meeting, St. Louis, MO; Diagnostic and Clinical Utility of Age-Based Reflex Testing for Immunofixation

913 **Amukele T**, Elbireer A, Plenary session presented at 2013 American Society for Clinical Pathology (ASCP) Annual Meeting in Chicago, IL, "Perspectives in Global Pathology: Case Studies in Vietnam, Uganda and Sub-Saharan Africa"

7/29/15 'Can Drones be used for the Routine Transport of Chemistry, Hematology, and Coagulation Laboratory Specimens' presented at American Association of Clinical Pathology, Atlanta GA

10/27/15 'Developing a Gates Foundation proposal' for GH 542 Evidence-Based Planning Strategic Planning, Emory University Rollins School of Public Health

12/8/15 'Can Drones be used for the Routine Transport of Laboratory Specimens' presented at Center for Accelerating Innovation and Impact USAID | Bureau for Global Health, Washington, DC

2/20/16 'When you go to change the world, start by asking questions' presented at TEDx Claremont Colleges, Claremont, CA

2/22/16 'Weakly Reactive HIV Rapid Diagnostic Test Kits Shouldn't be Reported as Positive. Karugaba P, **Amukele T**, Elbireer A, Nansamba A. - presented at Conference on Retroviruses and Opportunistic Infections (CROI), Boston, MA

3/10/16 'Transportation of Laboratory Samples via Unmanned Aerial Vehicles: Promises and Possibilities' presented at Hubert Department of Global Health, Emory University, Atlanta GA

8/1/16 'Technologies That Could Change the Future of the Clinical Laboratory' presented at American Association of Clinical Chemistry, – Philadelphia, PA

1/25/17 'To boldly go where no one has gone before: Drone Transportation of Laboratory Specimens and Blood Components' presented a AABB CME seminar, – Lecture given via Webinar



- 4/19/17 'Drones in the transport of laboratory specimens: Promises and Possibilities' presented for Department of Laboratory Medicine Grand Rounds, Yale School of Medicine, Yale University, New Haven, CT
- 7/20/17 'Impact of an Essential Diagnostics List on Laboratories in Low-Income Countries' presented at American Association of Clinical Chemistry, San Diego, CA
- 10/10/17 'Drones in the transport of laboratory specimens: Promises and Possibilities' presented for CAP'17 Inspiration Stage, National Harbor, MD
- 3/16/18 'Pathology, the missing link in Global Health' presented at 9<sup>th</sup> Annual Consortium of Universities for Global Health conference, New York, NY
- 8/2/18 'Essential Diagnostics: Meeting the Needs of a Global Population'. Plenary session presented at American Association of Clinical Chemistry, Chicago, IL
- 10/3/18 'Capacitating clinical pathology/laboratory medicine training and practice in low resources settings in Africa' presented at American Society of Clinical Pathologists, Baltimore, MD
- 10/4/18 'What would a worldwide List of Essential Diagnostic Tests look like?' presented at American Society of Clinical Pathologists, Baltimore, MD
- 10/10/18 'Medical drones and other innovations to strengthen laboratory medicine in low and middle-income countries' presented at Pathology Grand Rounds, University of Minnesota, Minneapolis, MN
- 3/1/19 'Transforming Transportation Through Cargo Robotics' presented at WeRobotics Global, Rockefeller Foundation. New York, NY
- 6/4/19 'Medical drones and other innovations to strengthen laboratory medicine in low and middle-income countries' presented at Laboratory Medicine Grand Rounds, MSKCC. New York, NY
- 6/28/19 'The Good Drones: Air Delivery of Lab Samples Over Long Distances in sub-Saharan Africa' presented at Association of Nigerian Physicians in America. Washington DC
- 8/5/19 Chair's Invited Session: Race, Genomics and Medicine (32223) at the 71st AACC Annual Scientific Meeting & Clinical Lab Expo in Anaheim, California
- 9/10/19 'The Promise and the Reality of Drone Delivery of Laboratory Samples and other Medical Supplies' presented at Department of Pathology Grand Rounds, Penn State College of Medicine. Hershey, PA
- 9/10/19 'Regulation of the Clinical Laboratory in the US' presented for resident noon conference at Department of Pathology Grand Rounds, Penn State College of Medicine. Hershey, PA
- 10/24/19 'Promise and the reality of drone delivery of laboratory samples and other medical supplies' presented at Instrumentation Laboratory Burlington, Massachusetts
- 10/02/20 Symposium: Novel Approaches to Diagnostics in Developing Countries at IDWeek 2020. Advances in specimen transport presented online during the COVID-19 pandemic

### Invited Talks and Seminars – International

- 9/16-19/03 3<sup>rd</sup> International Symposium on Nucleic Acids Chemistry Sapporo, Japan, Plenary session presentation. RTA Substrate Specificity and the Role of Binding Interactions in Catalysis
- 9/13-17/10 10th Biennial Conference of Association of Pathologists of East, Central and Southern Africa (APECSEA), Kampala Uganda. Impact of a Quality Assurance System in a Resource-Limited Setting: Approaches that work, and Lessons Learned
- 12/12 Schroder L, **Amukele T**. Paper presented at 1st International Conference of African Society for Laboratory Medicine (ASLM); Cape Town, South Africa. ISO 15189 and CAP-accredited laboratories in sub-Saharan Africa
- 12/12 Elbireer A, **Amukele T**. Paper presented at 1st International Conference of ASLM, Cape Town, South Africa. A survey of clinical laboratories in Kampala
- 7/28-8/1/13 **Amukele T**, Ladenson J, Badrick T. Symposium presented at 2013 American Association for Clinical Chemistry (AACC) Annual Meeting and Clinical Lab Expo in Houston, TX. "Challenges for Clinical Laboratories in Developing Countries"

- 3/4/13 African Assembly of International Association of Pathology Organizational Session; United States and Canadian Academy of Pathology, Baltimore, MD. What is the state of the Clinical laboratory in sub-Saharan Africa
- 1/13-15/14 Symposium presented at 'Non-communicable Disease Complications of HIV: Understanding the Data and Exploring Research Priorities. Sponsored by U.S. Fogarty International Center, Blantyre, Malawi. "Building Laboratory Capacity for NCD Research"
- 1/21-24/14 course on "Laboratory Medicine for Clinicians" Sponsored by U.S. Government (PEPFAR and NIH) funded Medical Education Partnership Initiative (MEPI) between Emory University and Addis Ababa University. Black Lion Hospital, Addis Ababa, Ethiopia
- 11/14 Guarner J, **Amukele T**, Wilson M, Winkler A, del Rio C. Symposium presented at 2nd International Conf of African Society for Laboratory Medicine (ASLM); Cape Town, South Africa. Enhancing the physician-laboratory collaboration to improve patient care in Africa
- 12/14 Symposium presented at 2nd Oriental Conference of Laboratory Medicine; Shanghai, PRC. A Brief History of the Establishment of Laboratory Quality Assurance in the United States
- 1/26-28/15 Symposium presented at 'Non-communicable Disease Complications of HIV: A focus on the renal, reproductive and lymphatic systems. Sponsored by U.S. Fogarty International Center, Blantyre, Malawi
- 1/29-30/15 2nd Global Health Workshop on held in conjunction with 17th International Conference on Dialysis, Advances in Kidney Disease Sponsored by Renal Research Institute, New Orleans
- 8/17/15 'Can Drones be used for the Routine Transport of Chemistry, Hematology, and Coagulation Laboratory Specimens' presented at Kitale Hospital Continuing Medical Education Meeting, Kitale District Hospital, Kitale, Kenya
- 12/1/16 'Delivering Health in Remote Areas – Case Study using Drones' presented at the School of Public Health and Community Medicine, University of New South Wales, Lecture given via Skype from Blantyre, Malawi
- 12/6/16 'A Model List of Essential Diagnostics' presented at African Society of Laboratory Medicine, Cape Town, South Africa
- 12/6/16 'Almost doesn't count: A Survey of Test Cost and Accuracy in Laboratories in Kampala, Uganda' presented at African Society of Laboratory Medicine, Cape Town, South Africa
- 2/2/17 'Delivering Health in Remote Areas – Case Study using Drones' presented at Arab Health 2017, Dubai, UAE
- 6/12-15/17 'Global Health Diagnostics' – a 4-day course. Part of McGill Summer Institute in Infectious Diseases and Global Health, Montreal, Canada
- 12/12/18 Co-chair for the oral session on 'Improving diagnostics to achieve Universal Health Coverage and International Health Regulations' presented at African Society of Laboratory Medicine, Abuja, Nigeria
- 02/13/19 'CDC Medical Cargo Drone Delivery Workshop' Co-organized by the Center for Disease Control (CDC) and WeRobotics, The Stanley Hotel, Port Moresby, Papua New Guinea
- 4/15/19 'Global Health Trends and [the] Essential Diagnostics List'. Plenary session presented at BD Global Health Annual Meeting, The Hague, Holland
- 10/3/19 'The Promise and the Reality of Drone Transported Samples' presented at the 3<sup>rd</sup> 'Cutting Edge Laboratory Management in Europe' symposium, organized by the European Federation of Laboratory Medicine, Prague, Czechia

## Employee Signature:

Timothy Amukele  
09 Feb 2022 22:46:017+0000

REASON: I approve this document

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