
CURRICULUM VITAE

Celestine Khalechi Makobe

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Personal information:

Name: Celestine Khalechi Makobe
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Date of birth: 16.06.1983
Place of birth: Kakamega
Nationality: Kenyan
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Career Objective:

To work in a reputable and established organization that offers a challenging opportunity and adequate room for personal growth through relevant training and wide exposure in the research field.

Vision:

To work in an environment where I get to do research that will empower people's lives and improve the quality of their lives.

Education Background:

- **Doctor of Philosophy (Theoretical Medicine–Medical Microbiology). October 2012-June 2016.** Institute of Medical Microbiology and Hospital Infection Control, Faculty of Medicine, at the Goethe University, Frankfurt am Main.
Thesis: Analysis of *Acinetobacter baumannii* pathogenicity mediated by Acinetobacter trimeric autotransporter adhesin (Ata)
Enrolled as a student at the Graduate school 1172 Biologicals, at the Goethe University, Frankfurt am Main
- **Masters of Science in Medical Microbiology. 2007-2010.** Jomo Kenyatta University of agriculture and Technology (JKUAT).
Thesis: Molecular Characterization of Virulence Factors in Diarrheagenic *Escherichia coli* Isolates from Children at the Mbagathi District Hospital, Nairobi, Kenya.(MSc)
- **Bachelor of Science in Medical Microbiology (First class Honours). 2003-2006.** Jomo Kenyatta University of agriculture and Technology (JKUAT).
Thesis: Isolation and Characterization of Hospital Environment Microorganisms: A case study on Nosocomial Infections in Mbagathi District Hospital (I.D.H), Nairobi. (BSc)

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- **Certificate in computer studies. 2002.** Donholm Catholic School, Kenya.
 - **Kenya Certificate of Secondary Education (KCSE). 1998 - 2001.** Moi Girls School Nairobi, Kenya.
 - **Kenya Certificate of Primary Education (KCPE). 1990-1997.** Donholm Primary School, Kenya.

Work Experience/Professional Background:

- November 2016-Todate: **Lecturer, Department of Medical Microbiology. Jomo Kenyatta University of Agriculture and Technology (JKUAT).**

Duties and responsibilities:

- ◆ Teaching undergraduate and post graduate students
- ◆ Project Supervision of undergraduate and post graduate students
- ◆ Academic Board member
- ◆ 1st Year Academic class advisor
- ◆ Department Time tabler
- ◆ Served as acting Examination officer

- June 2012- October 2016: **Tutorial Fellow, Department of Medical Microbiology. Jomo Kenyatta University of Agriculture and Technology (JKUAT).**

Duties and responsibilities:

- ◆ Teaching undergraduate and postgraduate students
- ◆ Project Supervision of undergraduate and post graduate students
- ◆ 1st Year Academic class advisor
- ◆ Department Time tabler

- November 2011- May 2012: **Tutorial Fellow, Institute of Tropical Medicine and Infectious Diseases (ITROMID). Jomo Kenyatta University of Agriculture and Technology (JKUAT).**

Duties and responsibilities:

- ◆ Teaching undergraduate and Diploma students
- ◆ Project Supervision of undergraduate and Diploma students
- ◆ Secretary to ITROMID Scientific Conference

- February 2009-October 2011: **Teaching Assistant, Institute of Tropical Medicine and Infectious Diseases (ITROMID). Jomo Kenyatta University of Agriculture and Technology (JKUAT).**

Duties and responsibilities:

- ◆ Teaching undergraduate and Diploma students
- ◆ Secretary to ITROMID Scientific Conference

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- 2007-2008: **Student attachment and Volunteer, United States Medical Research Unit- Nairobi, Kenya (Enterics Laboratory).**

Duties and responsibilities:

- Laboratory organization
- Quality control and safety in laboratory
- Receiving documentation and storing samples
- Gram staining procedures
- Microscopy and bacterial counts
- Preparation of different bacteria culture media
- Bacterial culture and identification
- Polymerase chain reaction and gel electrophoresis
- DNA extraction
- Biosafety and handling of class II pathogens
- Antimicrobial susceptibility test

Professional Workshops/Trainings/ Seminars:

September 2017. **Workshop training on ‘In situ Proximity Ligation Assay (PLA)’**. Africa International Biotechnology and Biomedical Conference (AIBBC) in Jomo Kenyatta University of Agriculture and Technology, Kenya.

November 2011. **Effective Teaching Seminar**. Institute of Tropical Medicine and Infectious Diseases in Jomo Kenyatta University of Agriculture and Technology, Kenya.

April 2008. **Laboratory Safety Training**. US-Army Medical Research Unit-Kenya.

Research Grants:

October 2012: German Academic Exchange Service (DAAD)-NACOSTI PhD scholarship in Germany.

Membership to Professional Associations and Clubs:

Member: Society of Biomedical and Biotechnology, Kenya

Member: Infection Prevention Network- Kenya (IPNET-K).

Member: Infection Prevention Network-Africa (IPNET-A).

Founder Member: Jomo Kenyatta University Medical Microbiology Students Association.

Patron: Jomo Kenyatta University Medical Microbiology Students Association (2017).

Volunteer: Hatua Likoni Organization (Student Mentor programme).

Scientific Publications:

Makobe C. K., Sang, W. K., Kikuvu, G., and Kariuki, S. (2012). Molecular Characterization of Virulence Factors in Diarrheagenic *Escherichia coli* Isolates from Children in Nairobi, Kenya. *J infect Dev Ctries* 2012; 6(8):598-604

Weidensdorfer, M., Chae, J.I., **Makobe, C.**, Stahl J., Averhoff, B., Müller, V., Schürmann, C., Brandes, R. P., Wilharm, G., Ballhorn, W., Christ, S., Linke, D., Fischer, D., Göttig, S., and Kempf, V. A. (2015). Analysis of endothelial adherence of *Bartonella henselae* and *Acinetobacter baumannii* using a dynamic human *ex vivo* infection model. *Infection and immunity* 84(3):711-22.

Conferences and Seminar presentations:

Omondi, A. A., and **Makobe, C. K.** (2017). 3rd Africa International Biotechnology and Biomedical Conference (AIBBC). Juja. Kenya. Poster presentation ‘Antimicrobial activity of cruciferous vegetables extracts against *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans*.

Makobe, C. K., Mühl, H., Radeke, H., Göttig, S., and Kempf, V. A. J. (2015). Winter school seminar organized collectively by FIRST, GRADE and GRK 1172 Biologicals, Frankfurt am Main, Germany. Seminar presentation entitled “Analysis of *Acinetobacter baumannii* pathogenicity mediated by *Acinetobacter* trimeric autotransporter adhesin (Ata).”

Makobe, C. K., Frank, D., Christ, S., Enders, G., Wilharm, G., Linke, D., Wichelhaus, T., Kempf, V. A., and Göttig, S. (2014). 4th Joint conference-German Society for Hygiene and Microbiology (DGHM), Association for General and Applied Microbiology, Dresden, Germany. Seminar presentation entitled “Evaluation of *Acinetobacter baumannii* Trimeric *Autotransporter* adhesin as an adhesion and virulence factor.”

Makobe, C. K., Kempf, V. A., and Göttig, S. (2014). Symposium German Society for Hygiene and Microbiology (DGHM), Association for General and Applied Microbiology on Microbial pathogenicity, Bad Urach, Germany. Seminar presentation entitled “Analysis of *Acinetobacter baumannii* pathogenicity mediated by *Acinetobacter* trimeric autotransporter adhesin (Ata).”

Makobe, C. K., Mühl, H., Radeke, H., Göttig, S., and Kempf, V. A. (2014). Winter school seminar organized collectively by FIRST, GRADE and GRK 1172 Biologicals, Frankfurt am Main, Germany. Seminar presentation entitled “Analysis of *Acinetobacter baumannii* pathogenicity mediated by trimeric autotransporter adhesin (Ata).”

Makobe, C. K., Mühl, H., Radeke, H., Göttig, S., and Kempf, V. A. (2013). Summer school seminar organized collectively by FIRST, GRADE and GRK 1172 Biologicals, Lowenstein, Germany. Seminar presentation entitled “Analysis of *Acinetobacter baumannii* pathogenicity mediated by *Acinetobacter* trimeric autotransporter adhesin (Ata).”

Makobe, C. K., Mühl, H., Radeke, H., Göttig, S., and Kempf, V. A. (2013). Winter school seminar organized collectively by FIRST, GRADE and GRK 1172 Biologicals, Frankfurt am Main, Germany. Seminar presentation entitled “Analysis of *Acinetobacter baumannii* pathogenicity mediated by *Acinetobacter* trimeric autotransporter adhesin (Ata).”

Makobe, C. K., Kikuvi, G., Sang, W., and Kariuki, S. (2009). Institute of Tropical Medicine and Infectious Diseases (ITROMID) Scientific conference, Juja, Kenya. Seminar presentation entitled “Molecular Characterization of Virulence Factors in Diarrheagenic *Escherichia coli* Isolates from Children at the Mbagathi District Hospital, Nairobi, Kenya.

Awards:

- ◆ Certificate from the Vice Chancellor's Award (J.K.U.A.T) for best student performance.
- ◆ Participation in St. John's Ambulance First Aid training and competition.
- ◆ Junior Achievements-Leadership Skills, Success Skills.

Students Supervised:

1. Hellen Saisi. MSc in Medical Microbiology. 2016. (ongoing) Jomo Kenyatta University of Agriculture and Technology. **Antimicrobial resistance patterns in extended-spectrum beta-lactamase producing *Klebsiella pneumoniae* isolates from children in Mukuru slums, Nairobi, Kenya.**
2. Rukiya Mohamed Haji. MSc in Medical Microbiology. 2016. (ongoing). Jomo Kenyatta University of Agriculture and Technology. **Characterization of antigenic properties of a selected gram-positive and gram-negative bacteria following inactivation by low-energy electron beam irradiation**
3. Nickson Simani Ifedha. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Bacteria causing bovine mastitis and its antimicrobial susceptibility patterns in Kabete sub county, Kenya.**
4. Anita A. Omondi. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Antimicrobial activity of cruciferous extracts against *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans*.**
5. Lorine Akinyi Onyango. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Isolation and characterization of *Enterobacteriaceae* found on chopping boards in food kiosks in Juja town, Kenya.**
6. James Ndobi Wekesa. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Isolation and characterization of fungi from barbers equipment around Juja area, Kenya.**
7. Leornard Kipkoech Korgoren. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Determination of enteric bacteria contamination in Lomolo water dam, Nakuru county, Kenya.**
8. Sarah Sidi. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Isolation, characterization and antimicrobial susceptibility patterns of bacteria found on menu in Juja restaurants, Kenya.**
9. Stella Njeri Maina. BSc in Medical Microbiology. 2016. Jomo Kenyatta University of Agriculture and Technology. **Determination of bacterial contaminants on toothbrushes kept in shared bathrooms of students within Juja, Kenya.**
10. Alvin Kinji Mwabu. BSc in Medical Laboratory Science. 2011. Jomo Kenyatta University of Agriculture and Technology. **Tuberculosis prevalence in Mbagathi district hospital, Nairobi, Kenya.**

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11. Gilbert Samba. BSc in Medical Laboratory Science. 2011. Jomo Kenyatta University of Agriculture and Technology. **Factors Influencing Prevalence of HIV/AIDS among Youth aged 15-24 years in Kibera Slum, Nairobi, Kenya.**
 12. Julie Ochola. BSc in Medical Laboratory Science. 2011. Jomo Kenyatta University of Agriculture and Technology. **Efficacy of the new Cryptococcal Antigen Lateral Flow Assay Kit using Urine Samples from HIV/AIDS patients attending African Inland Church (AIC) Kijabe Mission Hospital, Central Kenya.**
 13. Joan Maina. BSc in Medical Laboratory Science. 2011. Jomo Kenyatta University of Agriculture and Technology. **Presence of Disinfectant Resistant Bacteria in Kiambu District Hospital Laboratory, Kenya.**
 14. Alex Mungei. BSc in Medical Laboratory Science. 2011. Jomo Kenyatta University of Agriculture and Technology. **Prevalence of *Mycobacterium tuberculosis*, *Cryptococcus* and *Cryptosporidium* Species in HIV/AIDS Patients Attending Armed Forces Memorial Hospital Nairobi, Kenya .**
 15. Lilyana Dayo. BSc in Public Health. 2010. Jomo Kenyatta University of Agriculture and Technology. **Prevalence and Predisposing Factors of Sexually Transmitted Infections among Youth Attending Special Treatment Center Casino, Nairobi, Kenya.**
 16. Sharon Sironka. Diploma 2009. Jomo Kenyatta University of Agriculture and Technology. **HIV/AIDS knowledge and awareness sources among standard seven pupils in Kepiro Primary School, Kajiado District, Kenya.**

References:

1. Professor Gideon Kikui

Chairman, Department of Environmental Health

Jomo Kenyatta University of Agriculture and Technology

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2. Professor Samuel Kariuki

Director, Center for Microbiology Research

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3. Professor Dr. med.Volkhard A. J. Kempf

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5. Dr Andrew Kimanga Nyerere

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