

World Congress on **APPLIED MICROBIOLOGY**
&
World Congress on **ANTIBIOTICS**

August 13-14, 2018
Rome, Italy

Antimicrobial resistant lactic acid bacteria with probiotics potentials isolated from caged broiler birds

Nsikak U Stephen¹, Ukponobong E Antia¹, Anthony A Adegoke^{2,3}, Nsikan S Udoekong⁴, Endurance J Afe¹, Edidiong S Effiong¹

¹Akwa Ibom State University, Nigeria

²University of Uyo, Nigeria

³Durban University of Technology, South Africa

⁴Akwa Ibom State polytechnic, Nigeria

Antibiotic resistant pattern of lactic acid bacteria obtained from poultry origin was evaluated using standard microbiology methods and integrative approaches. A total of seven isolates were obtained. Upon growing anaerobically at 37°C for 24 hours they all showed varying level of tolerance to the bile salt, pH and NaCl, with *Enterococcus* sp. B51 having the highest tolerance to bile salt. Five (71.4%) of the isolates were resistant to

ciprofloxacin and erythromycin, 4 (57.1%) were resistant levofloxacin, 3 (42.9%) were resistant norfloxacin, amoxicillin, chloramphenicol and ampiclox, 2 (28.6%) were resistant to gentamycin and Streptomycin. All the isolates were susceptible to rifamycin except *Enterococcus* sp. B42. The isolates showed high resistance to fluoroquinolones and macrolide class of antibiotics thus posing some levels of public health concerns.

Biography

Nsikak Umo Stephen was born on 8th February 1982 in Lagos, Nigeria. In 2001 he graduated from secondary school at Civil Service Model College, Lagos and continued with BSc Microbiology in the University of Port Harcourt, Nigeria in 2005. Upon graduation in 2010 he started the MSc program in industrial Microbiology at University of Nigeria, Nsukka. His thesis was on sugar tolerance performance of palm wine yeasts isolated from parts of Nsukka, Nigeria. In 2015 he had an oil spill management and remediation trainee position with Nigerian Content Development and Monitoring Board. In 2016, he got employed with Akwa Ibom State University as an Assistant Lecturer. His research interest includes probiotics lactic acid bacteria of poultry origin with extension on free range birds. In 2017, he started his PhD program entitled "Quantitative Microbial Risk Assessment for *L. Monocytogenes* and *Salmonella* on Pumpkin leaves" at University of Uyo, Nigeria.

nsikakstephen@aksu.edu.ng

Notes: