Curriculum vitae: Allan Akandwanaho, MSc

Education

2022-present: Charles university Prague (ongoing)

PhD in Developmental and Cell Biology

Project title: Converting molecular-scale torques to embryonic left-right asymmetry.

2019-2021: University of Turin

Master's degree in Cell and Molecular Biology (Laurea Magistrale)

Thesis: Genome editing in salmon cell lines

2017-2019: Houari Boumediene University of Sciences and Technology, Algiers

Master's degree in Biochemistry and Immunology

Thesis: Synthesis and characterization of polymeric nanoparticles

2014-2017: Houari Boumediene University of Sciences and Technology, Algiers

Bachelor's degree in Biochemistry

Nature and life sciences

Work experience

2022-present: Instituteof Molecular Genetics of the Czech Academy of Sciences Prague, Czech republic

Position: PhD student

Lab: Developmental mechanobiology

Roles: My main role is to understand forces arise in embyronic stages of development. I have mastered working with C.elegans, spining disc

microscopy, fluorescence microscopy, data analysis with FIJI , GraphPAD and am learning MATLAB.
Additionally I used techniques such as PCR, cloning, restriction and sequencing.

01/2021-07/2021: Vaxxinova GmbH, Germany

Position: Intern

Lab: Fish Immunology

Supervisor: Yorick van der Wal

Roles: The project I did at Vaxxinova for my master thesis was entitled 'Genome editing in fish cell lines' with focus on cell culture, single-cell cloning, cell transfection, infection of cells with viruses or bacteria, titration, and qPCR. CRISPR RNP was used for generating knockouts, sequencing was done by the Sanger method and the sequence analysis was done using Geneious software and TIDE webtool

07/2018-08/2018: Baylor College of Medicine (Immunology, Allergy & Rheumatology), Uganda

Position: Intern

Lab: Infectious diseases

Roles: Diagnosis and follow-up of infectious diseases were the main focus of the laboratory with special attention to AIDS patients. Rapid tests were done for Hepatitis (B and C), tuberculosis and syphilis. Biomarkers for autoimmune diseases and underlying medical conditions were monitored routinely with
biochemical tests. Immune cell populations were analysed using flow cytometry.

06/2018-07/2018: Directorate of Government Analytical Lab, Uganda

Position: Intern

Lab: Forensic biology

Roles: Forensic analysis was the main focus of the laboratory. Samples and exhibits from crime scenes were received and stored according to protocols. DNA was extracted and sequenced to determine the probability of a suspect being at a crime scene.

04/2017: Institut Pasteur d'Algérie, Algeria

Position: Intern

Lab: Cell and molecular Immunology

Roles: My role in the Cellular and Molecular Immunology laboratory was to analyze immune deficiencies (innate and acquired) using Flow cytometry, ELISA and Nitro Blue Tetrazolium colouration techniques.

08/2016-09/2016: Polyclinique El. Dojf, Algeria

Position: Intern

Lab: Hematology

Roles: Diagnosis of diseases was the main focus of the laboratory. Phlebotomy, haematology, blood grouping for transfusions and qualitative tests for disease biomarkers were done. Quantitative biochemical tests for blood glucose levels, triglycerides, cholesterol were also done, using the spectrophotometer.

06/2016:Polyclinique de Reghaia, Algeria

Position: Intern

Roles: Diagnosis of diseases was the main focus of the laboratory. Phlebotomy, haematology, blood grouping for transfusions and qualitative tests for disease biomarkers were done. Quantitative biochemical tests for blood glucose levels, triglycerides, cholesterol were also done, using the spectrophotometer.

Publications

Coauthor research paper

Yorick A. van der Wal,1 ,2Henriette Nordli,2Allan Akandwanaho,1Linn Greiner-Tollersrud,2Jaap Kool,1andJorunn B. Jørgensen2

CRISPR-Cas– induced IRF3 and MAVS knockouts in a salmonid cell line disrupt PRR signaling and affect viral replication

Front Immunol.14, 1214912, (2023)

Oral presentations

IMG PhD conference September 2023: Talk “Converting molecular-scale torques to embryonic left-right asymmetry“

International C. elegans conference in Scotland June 2023: Poster “Converting molecular-scale torques to embryonic left-right asymmetry“

BIOCEV poster session in June 2023: Poster “Converting molecular-scale torques to embryonic left-right asymmetry“

Cytoskeletal brew organized by IBT in Prague April 2023: Talk “Converting molecular-scale torques to embryonic left-right asymmetry“

Cytoskeletal retreat in Dresden March 2023 : Talk “Converting molecular-scale torques to embryonic left-right asymmetry“

Student’s conference of Charles university September 2022: Poster “Converting molecular-scale torques to embryonic left-right asymmetry“

Languages:

English(C1), French(B2), German(B2), Italian(B2), Czech(B1), Luganda(mother tongue)