YEDOMON ANGE BOVYS ZOCLANCLOUNON

Bioinformatician | Plant Genetics and Genomics

A highly motivated scientist, driven by the desire to elucidate novel genomic mechanisms of trait evolution in living organisms (plants, mammals, fungi, insects). Proficient in a variety of bioinformatics analyses including genome assembly and annotation, population genomics, GWAS, comparative genomics, pangenome, and phylogenetic analyses. Fast learner and excellent collaborator.

EDUCATION

2020 | 2023

Jeonbuk National University
Ph.D. in Crop Science and Biotechnology — Jeonju, South Korea

Thesis: Genomic and phenotypic characterization of sesame germplasm for phylogenomics and breeding

2014 | 2016

University Cheikh Anta Diop
M.S. in Plant Pathology and Crop Protection — Dakar, Senegal

Thesis: Characterization of downy mildew [*Sclerospora graminicola* (Sacc.) J. Schröeter] incidence and severity on 20 pearl millet [*Pennisetum glaucum* (L.) R. Br.] varieties and assessment of agronomic performance

2007 | 2012

University of Abomey-Calavi
B.Sc. Agricultural Pest Management — Abomey-Calavi, Benin

Thesis: Toxicity of two plant powders as biopesticides in the management of *Callosobruchus maculatus* F. (Coleoptera: Chrysomelidae, Bruchinae) on two stored grain legumes

RESEARCH EXPERIENCE

2018 | 2020

Graduate Research Assistant
Genomics Division, Department of Agricultural Biotechnology, National Institute of Agricultural Sciences
Jeonju, South-korea

- Genome assembly annotation, and comparative analyses using *Sesamum* and *Fusarium* species.
- Identification of peroxidase and laccase enzymes related to the biosynthesis of lignans from sesame seed.
- Construction of a sesame core collection and identification of accessions with high oil, and lignans content

Birth date: **January 27, 1990**
Native country: **Benin**

CONTACT INFO

angez9914@gmail.com
github.com/Yedomon
twitter.com/AngeOmics
https://yedomon-site.netlify.app/

SKILLS

Coding

R • Python • Bash • Shiny • Snakemake • Nextflow

Wet Lab

Plant and fungi DNA and RNA extraction • Sequencing library preparation • PCR • RT-PCR

Dry Lab

Genome assembly • Genome annotation • Comparative genomics • Pan-genome analysis • Population genomics • QTL • GWAS

Languages

French : Native • English: Fluent • Korean: Intermediate

2017 | 2018

Graduate Research Assistant
Centre d'Etudes Régional pour l'Amélioration de l'Adaptation à la Sècheresse (CERAAS)

Thies, Senegal

- Evaluation and mapping pearl millet disease incidence within Senegal agro-ecological areas.
- Identification of resistant genotypes as parental lines for millet breeding.

TEACHING EXPERIENCE

2021

Introduction to R Language for GIS application - Raster data session
Instructor of R and GIS data mining for the DAAD climapAfrica - Working group Climate change Animal and Plant Physiology and Stress. | Press release | Training material

Remote

2020

Introduction to R Language for GIS application - Shapefile data session
Instructor of R and GIS data mining for the DAAD climapAfrica - Working group Climate change Animal and Plant Physiology and Stress. | Press release | Training material

Remote

HONORS AND AWARDS

2014

In Country and in Region Scholarship for Master Science graduate Award
German Academic Exchange Service, Deutscher Akademischer Austausch Dienst (DAAD)

SOCIETY MEMBERSHIP

2020 | Present

International Society for Computational Biology: ISCB
Member

VOLUNTEERING

2021 | Present

African Biogenome Project (AfricaBP) - Pilot Committee
Co-Chair of the Genome Annotation Sub-committee | Link

2022

African Biogenome Project (AfricaBP) - Pilot Committee
Co-organizer of the AfricaBP Workshop on Biodiversity Genomics Technologies and Infrastructures | Link

SELECTED PUBLICATIONS

2023 **Genomic and phenotypic characterization of sesame germplasm for phylogenomics and breeding**
PhD Thesis Document | Download
Zoclanclounon YAB

2023 **Insights into chloroplast genome structure and phylogenetic relationships within *Sesamum* species complex (Pedaliaceae)**
Frontiers in Genetics | *doi*:https://doi.org/10.3389/fgene.2023.1207306
Zoclanclounon YAB, Thamilarasan SK, Mo Y, Ahn B-O, Kim J-G, and Lee K

2023 **Genome-wide development of intra- and inter-specific transferable SSR markers and construction of a dynamic web resource for yam molecular breeding: Y2MD**
Preprint bioRxiv | doi: https://doi.org/10.1101/2023.03.09.531889
Moussa D†, **Zoclanclounon YAB**†, Mboup PA, Diouf D, Malédon E, Rivallan R, Chair H and Dossa K (†: First co-author)

2023 **Haplotype-resolved telomere-to-telomere assembly of the African catfish (*Clarias gariepinus*) provides insights for terrestrial adaptation of air-breathing catfishes**
Preprint bioRxiv | doi: https://doi.org/10.1101/2023.03.23.533919
Nguinkal JA, **Zoclanclounon YAB**, Brunner RM and Goldammer T

2023 **Open Institute of the African BioGenome Project: Bridging the gap in African biodiversity genomics and bioinformatics**
Preprint OSF | *doi*:https://doi.org/10.31219/osf.io/adwh4
Sharaf A,Ndiribe CC, Omotoriogun TC, Abueg L, Badaoui B, Badiane Markey FJ, Beedesse G, Diouf D, Duru VC, Ebuzome C, Eziuzor SE, Fakim YJ, Formenti G, Ghanmi N, Guerfali FZ, Houaga I, Ideozu JE, Katee SM, Khayi S, Kuja JO, Kwon-Ndung EH, Marks RA, Moila AM, Mungloo-Dilmohamud Z, Muzemil S, Nigussie H, Osuji JO, Ras V, Tchiechoua YH, **Zoclanclounon YAB**, Tolley KA, Ziyomo C, Mapholi N, Muigai A, Djikeng A,Ebenezer TE

2022 **Characterization of peroxidase and laccase gene families and *in silico* identification of potential genes involved in upstream steps of lignan formation in sesame**
MDPI Life | doi: https://doi.org/10.3390/life12081200
Zoclanclounon YAB, Rostás M, Chung N-J, Mo Y, Karlovsky P and Dossa K

2022 **A chromosome-level genome of the Korean cultivar *Sesamum indicum* var. Goenbaek**
Data Set | NCBI Project: PRJNA810203 | doi: https://doi.org/10.5281/zenodo.6350880
Zoclanclounon YAB, Kim J-G, and Lee K

2021

A genome assembly of the sesame wilt disease pathogen *Fusarium oxysporum f.sp. sesami*
Data Set | NCBI Project: PRJNA667197
Zoclanclounon YAB, Jung H-J, Kim S-U, Yoon Y, Choi H-W, Kim TH and Lee K

REFEREES

Youngjun Mo, Ph.D.
Assistant Professor at Department of Crop Science and Biotechnology, Jeonbuk National University, Korea | **yjmo@jbnu.edu**

Ghislain Kanfany, Ph.D.
Assistant Professor at Gaston Berger University, UFR S2ATA, Saint-Louis, Senegal | **ghislain.kanfany@ugb.edu.sn**

Komivi Dossa, Ph.D.
Researcher at CIRAD, UMR AGAP Institut, Guadeloupe, France. | **komivi.dossa@cirad.fr**