

CURRICULUM VITAE

November 17, 2023

NAMES:

Charlotte Abiké Oladjo ADJE (PhD),– Genetics and Plant Breeding

TITLE, RESPONSIBILITY, AND ACADEMIC AFFILIATION

Research Fellow

Faculty of Agronomic Sciences (FSA)

Unit of Genetics, Horticulture and Seed Science (GBioS)

Laboratory of Crop Production, Physiology and Plant Breeding (PAGEV)

CONTACT DETAILS:

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EDUCATION / QUALIFICATION

2013 2017 PhD in Genetic and Plant Breeding. Faculty of Sciences and Technology (FAST), University of Abomey Calavi (UAC) Republic of Benin.

2011 2013: Msc in Genetic and Plant Breeding, Faculty of Sciences and Technology (FAST), University of Abomey Calavi (UAC) Republic of Benin.

2003 -2005: Msc in Environment and Health, Faculty of Letters, Arts and Human Sciences (FLASH), University of Abomey Calavi (UAC) **Republic** of Benin.

2002-2004: Msc in Natural Sciences Option Natural Sciences, Faculty of Sciences and Techniques, University of Abomey-Calavi. Republic of Benin.

2001-2002: Bsc in Natural Sciences Option Natural Sciences, Faculty of Sciences and Techniques, University of Abomey-Calavi. Republic of Benin.

MOST RECENT SPECIFIC TRAININGS

2021-2022: Training of Trainers and Facilitators on “The agroecological transition of the pineapple sector in Benin” phase 1, 2 and 3. COLEAD

April 2019: Training workshop in molecular biology and Open Labware, Republic of Benin organized by the University of Cambridge and the “Reach & Teach Science in Africa” initiative of the JR Biotek Foundation.

March 2018: Training on the detection and identification of living modified organisms for French-speaking Africa / Tunisia

WORK EXPERIENCE

2021 - present: Assistant to the coordination of the project "BIOVALOR: Strengthening the skills approach and entrepreneurial culture in higher education in agronomy: levers for professional integration and the development of the bioeconomy in Benin" implemented at the Faculty of Sciences Agronomics from the University of Abomey Calavi (FSA/UAC) and which focuses on 6 sectors namely Rice, Cashew, Pineapple, Fonio, Shea and Sisrê with French partners (University of Loraine, Institut Montpellier Sup Agro, Cirad).

2016 - present: Research fellow, in charge of the Molecular Biology section. Unit of Genetics, Horticulture and Seed Science, Faculty of Agronomic Sciences (FSA), University of Abomey-Calavi, Benin.

Main activities.

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- Supervision of activities at the level of the Molecular Biology section, initiation of learners to the use of equipment and planning of device maintenance.
- Contribution to the development and submission of a project for the acquisition of laboratory equipment: Seeding Labs, Laboratory Instrumentation Award Winners, Boston, Massachusetts, USA. \$120,000.
- Active involvement in setting up the Genetics, Horticulture and Seed Science Unit GBioS. Identification of the necessary equipment, definition of the characteristics, contact with international suppliers, follow-up of the process of acquisition of equipment and their installation.
- Research on the possibilities of improving pineapple productivity in Benin through rapid production methods of uniform suckers, understanding of the morphological and molecular diversity of pineapple germplasm in Benin and the analysis of different cultivars in production areas.
- Research on the introduction of orange-fleshed sweet potato in Benin through the constitution of a germplasm, the definition of cultivation practices for optimal yield, methods of production of healthy vines, agromorphological and molecular characterization, evaluations multi-local with the participation of producers, consumers and processors.
- Course on the legislation of plant genetic resources for Master's students in Plant Breeding from the Faculty of Agronomic Sciences of the UAC.
- Course in Molecular Genetics for Master's students in Genetic Resources and Plant Breeding from the Faculty of Agronomic Sciences and the Faculty of Sciences and Techniques of the UAC.
- History and Evolution of Cultivated Plants course for students of the Master's degree in Genetic Resources and Plant Breeding from the Faculty of Sciences and Techniques of the UAC
- Prospecting and Collection of Phylogenetic Resources course for Master's students in Genetic Resources and Plant Breeding from the Faculty of Sciences and Techniques of the UAC.
- Courses in Industrial Cultures for undergraduate and engineering students from the Faculty of Agronomic Sciences of the UAC.
- Practical work in Molecular Genetics: DNA extraction, agarose gel electrophoresis, PCR, enzymatic digestion for students from the Faculty of Agronomic Sciences and the Faculty of Sciences and Techniques of the UAC.
- Introduction of students to the statistical analysis of molecular data.

2018 – 2021: Manager of African Union Research project “Improving orange-fleshed sweetpotato value chains for food and nutrition security in Benin, Niger and Nigeria. Partners: University of Parakou (Benin), University of Abomey Calavi (Benin), Ebony State University Abakaliki (Nigeria), National Institute of Agronomic Research of Niger (Niger)”.

Main activities

- Develop the project management plan.
- Planning and organization of steering committees and management of partnerships.
- Planning, distribution and monitoring of the implementation of works.
- Planning and estimating costs and budgeting of activities while respecting budget lines.
- Identification of human resources needs and suggestion of suitable profiles.
- Identification of risks and proposal of risk mitigation strategies.
- Rigorous monitoring of equipment acquisition processes by defining product quality criteria and in compliance with purchasing procedures.
- Definition of security measures for sustainable management of equipment.
- Overall management of project work, necessary changes and control of deadlines for deliverables.
- Collection of data and information on project indicators, Preparation of project activity and financial reports.

2016 - 2022: Research fellow in the project funded by the European Executive Agency for Education and Culture (EACEA). Improve training and research mobility for breeding new crops in Africa.

Consortium members: University of Abomey-Calavi in Benin, Coordinating Institution, University of KwaZulu-Natal in South Africa, University of Namibia in Namibia, Jimma University in Ethiopia, Ebonyi State University in Nigeria, Montpellier SupAgro in France.

Main activities

- Evaluation of research protocols.
- Assistance in the conduct of activities.
- Supervision and supervision of student research projects.

2017 - 2022: Research fellow in the project funded by the European Executive Agency for Education and Culture (EACEA): Mobility of plant genomics researchers to accelerate climate-smart adaptation options and food security in Africa. Consortium members: Ebonyi State University in Nigeria, University of Abomey-Calavi in Benin, Jimma University in Ethiopia, University of Yaounde 1 in Cameroon, Wageningen University in the Netherlands. Associated partners include University of

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KwaZulu Natal (South Africa), BecA-ILRI (Kenya), Montpellier SupAgro, Center for International Cooperation in Agricultural Research for Development CIRAD, African Plant Breeding Academy (UC Davis), Plant Breeding E-learning Africa (Iowa State University).

Main activities

- Evaluation of research protocols.
- Assistance in the conduct of activities.
- Supervision and supervision of student research projects.

2018 - 2019: Manager of the project funded by ARES Academy of Research and Higher Education.

Project: Amplification of the agro-ecological transition for profitable and sustainable cereal and market gardening systems in the territories of Atacora in Benin and Houet in Burkina Faso (AGRO-ECO).

Partners: Catholic University of Louvain (UCL), Abomey-Calavi University (UAC), University of Liège (ULiège), National Center for Scientific and Technological Research (CNRST), Nazi Boni University (UNB), Louvain Coopération, Development Aid Gembloux (ADG), Autre Terre, Confédération Paysanne du Faso (CPF), Federation of Producer Unions (FUPRO).

Main activities

- Develop the project management plan.
- Planning and organization of steering committees and management of partnerships.
- Planning, distribution, and monitoring of the implementation of works.
- Planning and estimating costs and budgeting of activities while respecting budget lines.
- Assistance in the conduct of activities, communication between partners and drafting of reports.

2014 - 2017: Manager of the project: Agricultural Productivity Program in West Africa (PPAAO/WAAPP). Project "Improving the quality and productivity of pineapples in Benin

Main activities

- Planning and organization of steering committees and management of partnerships.
- Planning, distribution, and monitoring of the implementation of works.
- Planning and estimation of costs and budgeting of activities respecting the budget lines.:
- Drafting of activity reports.

2004 - 2010: Research Assistant in the Market Gardening Program of the Agricultural Research Institute of Benin (INRAB.).

Main activities

- Planning of research activities
- Monitoring of the implementation of works.
- Drafting of activity reports.

2020: Consulting Diagnosis and inventory of knowledge and experiences in agroecological practices in market gardening and rice growing in southern Benin, for Enabel Benin.

2017: Consulting Study on improving the productivity, competitiveness, and development of a geographical indication (GI) of the Benin sugarloaf pineapple for the FAO.

2016: Consulting Development of the pineapple production and processing database in Benin for "PINEX for development

CONTRIBUTION TO NATIONAL ECONOMIC GROWTH

KEY RECENT MEETINGS AND CONFERENCES

February 2022: Benin Cashew Day 3rd edition. Strategic partnerships for an Efficient Cashew Sector in Africa. February 22 to 24, 2022 at the Cotonou convention center.

September 2021: "Dialogue between students and private sector on circular economy and climate change: best practices and reflections for the future" 14 Septembre 2021 Italian Embassy in Belgium.

2022: Public meetings of the Commitment for the Competitiveness of the Pineapple sector in Benin organized by Pacofide.

MANUSCRIPTS REVIEW

Scientific African (2), Acta Horticulturae (1).

PROFESSIONAL MEMBERSHIP

African Society of Genetics (SAGE)

African Plant Breeders Association (APBA)

Organization for Women and Science for the Developing World (OWSD)

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Association of Women for Education, Training and Scientific Research in Benin (AFEFRS-Benin).

AWARDS AND DISTINCTIONS

Winner of the First Innovation Prize (XOF 1,000,000) of the University of Abomey-Calavi (Dec 2022) during the First Week of Science and Innovation

MOST RECENT GRANTS, FELLOWSHIPS

2013: Subsidy from the West African Agricultural Productivity Program (WAAPP / PPAAO). 50000 USD

2018: Seeding Labs, Laboratory Instrumentation Awards Winners, Boston, Massachusetts, USA. 20,000USD.

2018: Improved Orange Fleshed Sweet Potato value chains for food and Nutrition security in Benin, Niger and Nigeria” funded by the African Union. University of Parakou (Benin). Budget: 1,200,000 USD.

MOST RECENT PUBLICATIONS

1. Kaczmarek, T., Causse, S., Abdul, S. D., Abraham, S., Achigan-Dako, E. G., **Adje, C.**, ... & Billot, C. (2023). Towards conservation and sustainable use of an indigenous crop: A large partnership network enabled the genetic diversity assessment of 1539 fonio (*Digitaria exilis*) accessions. *Plants, People, Planet*.
2. Azon CF, Fassinou Hotegni NV, **Adjé CAO**, Agossou CO, Sogbohossou OED, Nouletope H, Akotchayé OPK, Kékpè P, Aïssou C, Guirguissou MA, Dossa K, Agbangla C, Quenum FJB, and Achigan-Dako EG. Socio-demographic factors and ethnobotanical knowledge associated with sesame management practices across agroecological zones in Benin. *Experimental Agriculture*. <https://doi.org/10.1017/S0014479723000078>
3. Isiaka, A. I., Agossou, C. O. A., Agbolade, J. O., **Adje, C. A. O.**, Fassinou, N. V., Tossou, M. G., Oselebe, H., & Achigan-dako, E. G. (2023). Phenology, floral organs ultra-structure , traits correlation , stigma receptiveness , pollen viability and germinability in horsegram (*Macrotyloma uniflorum* Lam .) Verdc . *South African Journal of Botany*, 161, 444–453. <https://doi.org/10.1016/j.sajb.2023.08.033>
4. Nkoulou, L. F. M., Ngalle, H. B., Cros, D., **Adje, C. O.**, Fassinou, N. V., Bell, J., & Achigan-Dako, E. G. (2022). Perspective for genomic-enabled prediction against black sigatoka disease and drought stress in polyploid species. *Frontiers in Plant Science*, 13.
5. Adigoun, R. F. R., Houdegbe, A. C., Fassinou Hotegni, V. N., Segnon, A. C., N'Danikou, S., **Adjé, C. A.**, ... & Achigan-Dako, E. G (2022). Enabling effective maize seed system in low-income countries of West Africa: Insights from Benin. *Frontiers in Sustainable Food Systems*, 570.
6. Sohindji, F. S., **Adje OA, C.**, Fassinou Hotegni V, N., Fanou Fogny, N., Akponikpe, T., Quenum, F., & Achigan-Dako, E. G. (2022). Orange-fleshed sweetpotato production: Progress and perspectives for value chain development in West Africa. *JSFA Reports*, 2(5), 198-207.
7. Achigan-Dako E.G., Sogbohossou OED, Houdegbe CA, Sohindji F., Chataika B., Blalogue J, Zohoungbogbo HF, Oyango Abutkusa M, Salaou M, R. Francisco, **Adje A.O.C.**, Fassinou H. N., E.M. Schranz (2021). Ten years of *Gynandropsis gynandra* improvement for nutrient-rich leaf consumption in Africa: lessons learnt and way forwards. *Annual Plant Reviews* (2021) 4,1–45.
8. Ibrahim Bio Yerima, A. R., Achigan-Dako, E. G., Aissata, M., Sekloka, E., Billot, C., **Adje, C. A.O.**, Bakasso, Y. (2020). Agromorphological Characterization Revealed Three Phenotypic Groups in a Region-Wide Germplasm of Fonio (*Digitaria exilis* (Kippist) Stapf) from West Africa. *Agronomy*, 10(11), 1653. IF:1.68.
9. Bio Yerima, A. R. I., Issoufou, K. A., **Adje, C. A.**, Mamadou, A., Oselebe, H., Gueye, M. C., Achigan-Dako, E. G. Genome-wide scanning enabled SNP discovery, linkage disequilibrium (LD) patterns and population structure in a panel of fonio (*Digitaria exilis* (Kippist) Stapf) germplasm (2021).. *Frontiers in Sustainable Food Systems*, 294. IF:3.5.
10. **Adjé CAO**, Achigan-Dako GE, d'Eeckenbrugge GC, Hounnankpon Y and Agbangla, C. (2019) Morphological characterization of pineapple (*Ananas comosus*) genetic resources from Benin. *Fruits* 74, 167-179. IF: 0.81.
11. **Adjé CAO**, Quenum F, Akonde PT, Achigan-Dako GE and Clément Agbangla (2018) Differential response of pineapple cultivars to propagules production using stem cuttings. *Annales des Sciences Agronomiques* 22(2).
12. **Adjé CAO**, Achigan-Dako GE, Agbangla C (2016) Optimizing genomic DNA isolation in pineapple (*Ananas comosus* L.) *Journal of Plant Breeding and Genetics* 4(1) 11-18.

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13. Achigan-Dako GE, **Adjé CAO**, N'Danikou S, Fassinou Hotegni NV, Agbangla C, Ahanchédé A (2014) Drivers of conservation and utilization of genetic resources in pineapple, *Ananas comosus* (L.) Merr., production systems in Southern Benin SpringerPlus 3:273. IF: 1.49