

CURRICULUM VITAE

November 2023

NAMES

Dèdéou Apocalypse Tchokponhoué (PhD), Plant breeding

TITLE RESPONSIBILITY AND ACADEMIC AFFILIATION

Dr

Genebank Manager; Genetics, Biotechnology and Seed Science Unit (PAGEV/GBioS/FSA)

University of Abomey-Calavi, Republic of Benin.

CONTACT DETAILS

Genetics, Biotechnology and Seed Science (GBioS) Unit, Laboratory of Plant Production, Physiology and Plant Breeding (PAGEV), Faculty of Agricultural Sciences, University of Abomey-Calavi, 01 BP 526 Abomey-Calavi, Republic of Benin.

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EDUCATION / BACKGROUND

2018 - 2022: PhD, **Plant Breeding**, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa.

2014 – 2016: Master of Science, **Biotechnology and Plant Breeding**, School of Plant Sciences, Faculty of Agronomic Sciences (FSA), University of Abomey-Calavi (UAC), Republic of Benin.

2008 – 2012: Bachelor of Science, **Crop Science**, Faculty of Agronomic Sciences (FSA), University of Abomey-Calavi (UAC), Republic of Benin.

2009 – 2012: Bachelor of Science, **Statistics**, Faculty of Statistics and Econometrics (FASEG), University of Abomey-Calavi (UAC), Republic of Benin.

RESEARCH INTERESTS

Plant Genetic Resources Conservation, Genebank genomics, Conservation genomics, Plant Breeding, and Seed Science.

MOST RECENT SPECIFIC TRAININGS AND WORKSHOPS

6th - 10th March 2023: Seeds for Resilience (SFR) workshop. Global Crop Diversity Trust, Casablanca, Morocco.

10th - 14th October 2022: Genetic Resources Course, The World Vegetable Center, Arusha, Tanzania.

09th - 13th May 2022: Seeds for Resilience (SFR) workshop. Global Crop Diversity Trust, Nairobi, Kenya.

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2nd - 29th September 2019: IGSS (Integrated Genotyping Service & Support) Marker Assisted Breeding Training Workshop. Laboratory Management and Equipment Operations Training Workshop for GENES and MOBREED students. Biosciences Eastern and Central Africa- ILRI Hub, Nairobi, Kenya.

2nd - 13th September 2018: Molecular Laboratory Training Workshop, Department of Plant Sciences, University of Cambridge, UK.

RESEARCH AND WORK EXPERIENCE

January 2023 – Present: Genebank Manager; Genetics, Biotechnology and Seed Science Unit (PAGEV/GBioS/FSA), University of Abomey-Calavi.

January 2023 – Present: SAFE-PGR (Safeguarding Plant Genetic Resources of Benin for a sustainable future use) project manager [Funding: **Crop Trust**, Amount: **USD 84,850**].

Role: Planning and ensuring the timely implementation of the project activities and coordination of technical and financial reporting.

January 2023 - Present: TAVI (Taiwan Africa Vegetable Initiative) project manager (Funding: **Taiwan Agricultural Council**, Amount: **€ 228,600**).

Role: Planning and ensuring the timely implementation of the project activities and coordination technical and financial reporting.

Feb 2018 – Dec 2021: **Research fellow**, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, South Africa.

PRIZES AND GRANTS AND AWARDS

☒ **Aug 2021 – Jul 2024:** Research grant from the **International Foundation for Science**. **Project title:** Elite genotypes selection and development of vegetative propagation techniques for enhanced production and fruit quality attributes in the miracle plant *Synsepalum dulcificum* (Schumach & Thonn.) Daniell (**14,541 USD**).

☒ **December 2022: First Prize**, Innovation contest, 1st edition of the Science and Innovation Week of the University of Abomey-Calavi, 20 - 22 December 2022.

Innovations' titles: 1- Early fruiting and high yielding Sisrè genotype, 2- Discovery of two genepools for the Sisrè berry plant in West Africa: Implication for conservation and breeding.

☒ **November 2021: Third Prize** for the best poster presentation at the Second African Plant Breeders Association Conference, Kigali, Rwanda, 25th-30th October 2021.

Poster title: End-users' desired breeding traits in the Sisrè berry plant [*Synsepalum dulcificum* (Schumach & Thonn.) Daniell] across ecological zones and sociolinguistic groups in West Africa.

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- ☒ **September 2018:** JR Biotek Foundation and University of Cambridge Scholarship for outstanding Africa based PhD students involved in agricultural research to participate in world-class Molecular Laboratory Training Workshop at the Department of Plant Sciences, University of Cambridge from 3rd - 12th September 2018 (£ 5,000).

SCHOLARSHIPS

2017 – 2021: Intra Africa Mobility PhD Scholarship (Enhancing training and research mobility for novel crops breeding in Africa (MoBreed, www.mobreed.com), University of KwaZulu-Natal, South Africa. (€ 51,200).

INTERNATIONAL PROJECT AND PROGRAMS

- ☒ **Capacity Building of African Young Scientists in Precision Agriculture Through Cross-Regional Academic Mobility for Enhanced Climate-Smart Agri-Food System (PATH), Funding:** European Education and Culture Executive Agency, **Amount:** EUR 1,796,820, **Duration:** 2024 - 2027).
Role: Leader of the project drafting team.
- ☒ **Mobility for plant genomics scholars to accelerate climate-smart adaptation options and food security in Africa / GENES;** Funding: European Education and Culture Executive Agency, Amount: EUR 1.399.800,00).
Role: Member of the project writing team.
- ☒ **Safeguarding Plant Genetic Resources of Benin for a sustainable future use (SAFE PGR);** Funding: Global Crop Diversity Trust, Amount: USD USD 84,850).
Role: Leader of the project drafting team.

SOME SELECTED PUBLICATIONS

- ☒ **Tchokponhoué, D. A.,** Eric C. Legba, S. N'Danikou, Nyadanu, D., Oselebe, H. and Achigan-Dako, E.G. Management systems, farmers, and consumers' preferences for breeding traits in Sisrè berry (Syn: miracle fruit) plant [*Synsepalum dulcificum* (Schumach & Thonn.) Daniell] in Southwest and Southeast Nigeria. *Frontiers in Sustainable Food System*, 7, 1252036.
- ☒ **Tchokponhoué, D. A.,** Achigan-Dako, E.G., Sognigbé, N., Nyadanu, D., Hale, I., Odindo, A.O., and Sibiya, J. **2023.** Genome-wide diversity analysis suggests divergence among Upper Guinea and the Dahomey Gap populations of the Sisrè berry (Syn: miracle fruit) plant (*Synsepalum dulcificum* [Schumach. & Thonn.] Daniell) in West Africa. *The Plant Genome*, e20299.

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- ☒ Capo-Chichi, D. B., **Tchokponhoué, D. A.**, Sogbohossou, D. E., & Achigan-Dako, E. G. **2023**. Narrow genetic diversity in germplasm from the Guinean and Sudano-Guinean zones in Benin indicates the need to broaden the genetic base of sweet fig banana (*Musa acuminata* cv Sotoumon). *Plos one* 18(11), e0294315.
- ☒ **Tchokponhoué, D.A.**, N'Danikou, S., Fassinou-Hotegni, V.N., Nyadanu, D., Kahane, R., Odindo, A.O., Achigan-Dako, E.G. and J. Sibiya. **2021**. Use patterns, knowledge diversity, and drivers for the cultivation of the miracle plant [*Synsepalum dulcificum* (Schumach. & Thonn.) Daniell] in Benin and Ghana. *Plants*, 10 (11), 2253.
- ☒ **Tchokponhoué, D.A.**, E. G. Achigan-Dako, S. N'Danikou, R. Kahane, A.O. Odindo and J. Sibiya. **2021**. Comparative analyses of management practices and end-users desired breeding traits in the miracle plant (*Synsepalum dulcificum*) in West Africa. *Journal of Ethnobiology and Ethnomedicine*, 17(1): 41.
- ☒ Nyadanu, D., Lowor, S.T., **Tchokponhoué, D.A.**, Pobee, P., Nunekpeku, W., Brako-Marfo, M., Okyere, D., Owusu-Ansah, F. and Ofori, A. **2021**. Combining ability and gene action for sexual compatibility and pattern of nut colour segregation among ten elite clones of kola (*Cola nitida* (Vent) Schott and Endl.). *Euphytica*, 21 (62).
- ☒ **Tchokponhoué, D.A.**, Achigan-Dako E.G., N'Danikou S., Nyadanu D., Kahane R., Houéto J., Fassinou Hotegni N.V., Odindo A.O. and Sibiya J. **2020**. Phenotypic variation, functional traits repeatability and core collection inference in *Synsepalum dulcificum* (Schumach & Thonn.) Daniell reveals the Dahomey Gap as a centre of diversity. *Scientific Reports* 10: 1-17.
- ☒ Nyadanu, D., Lowor S.T., Akpertey A., **Tchokponhoué D.A.**, Pobee P., Dogbatse J.A., Okyere D., Amon-Armah, F. and Brako-Marfo, M. **2020**. Genetic variability of bioactive compounds and selection for nutraceutical quality in kola [*Cola nitida* (Vent) Schott. and Endl.]. *PloS one* 15:e0242972.
- ☒ **Tchokponhoué, D.A.**, N'Danikou S. and Achigan-Dako E.G. **2019**. A combination of approaches evidenced seed storage behaviour in the miracle berry *Synsepalum dulcificum* (Schumach. et Thonn.) Daniell. *BMC Plant Biology* 19:117.
- ☒ **Tchokponhoué, D.A.**, N'Danikou S., Houéto J.S. and Achigan-Dako E.G. **2019**. Shade and nutrient-mediated phenotypic plasticity in the miracle plant *Synsepalum dulcificum* (Schumach. et Thonn.) Daniell. *Scientific Reports* 9:5.
- ☒ **Tchokponhoué, D.A.**, Achigan-Dako E.G., N'Danikou S., Houdegbe C.A., Agossou C.A.O., Assogba-Komlan F. and Vodouhè R.S. **2018**. Regeneration ability and Seedling growth in the miracle plant

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Synsepalum dulcificum (Schumach. & Thonn.) Daniell. *Fruits* 73(1):13-21.
<https://doi.org/10.17660/th2018/73.1.2>

- ☒ **Tchokponhoué, D.A.**, N'Danikou S., Hale I., Van Deynze A. and Achigan-Dako E.G. **2017**. Early fruiting in *Synsepalum dulcificum* (Schumach. & Thonn.) Daniell juveniles induced by water and inorganic nutrient management. *F1000 Research*. 03/2017; 6: 399.
- ☒ Achigan-Dako, E.G., **Tchokponhoué D.A.**, N'Danikou S., Gebauer J. and Vodouhè R.S. **2015**. Current knowledge and breeding perspectives for the miracle plant *Synsepalum dulcificum* (Schumach. & Thonn.) Daniell. *Genetic Resources and Crop Evolution* 62 (3):465-476.
- ☒ N'Danikou, S., Achigan-Dako E.G., **Tchokponhoué D.A.**, Agossou C. O. A., Houdegbe C.A., Vodouhe R.S. and Ahanchede A. **2015**. Modelling socioeconomic determinants for cultivation and in-situ conservation of *Vitex doniana* Sweet (Black plum), a wild harvested economic plant in Benin. *Journal of Ethnobiology and Ethnomedicine* 11(1):28.
- ☒ N'Danikou S., Achigan-Dako E.G., **Tchokponhoué D.A.**, Assogba-Komlan F., Vodouhè R.S. and Ahanchédé A. 2015. Improving seedling production for *Vitex doniana*. *Seed Science and Technology* 43(1):10-19.
- ☒ N'Danikou, S., Achigan-Dako E.G., **Tchokponhoué D.A.**, Assogba-Komlan F., Gebauer J., Vodouhè R.S. and Ahanchédé A. 2014. Enhancing germination and seedling growth in *Vitex doniana* Sweet for horticultural prospects and conservation of genetic resources. *Fruits* 69(4): 279-291.
- ☒ Achigan-Dako, E.G., N'Danikou S., **Tchokponhoué, D.A.**, Assogba-Komlan F., Larwanou L., Vodouhe S.R. and Ahanchede, A. **2014**. Sustainable use and conservation of *Vitex doniana* Sweet: unlocking the propagation ability using stem cuttings. *Journal of Agriculture and Environment for International Development* 108(1): 43-62.
- ☒ N'Danikou, S. and **Tchokponhoué, D.A.** 2019. Plant Domestication for Enhanced Food Security. In W. Leal Filho et al. (eds.), Zero Hunger. Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-319-69626-3_96-1.
- ☒ N'Danikou, S., **Tchokponhoué, D.A.**, Houdegbe C. A., Achigan-Dako E. G. **2014**. African Plant Biodiversity in Pest Management. In Gurib-Fakim A. (Ed.) Novel Plant Bioresources: Applications in Food, Medicine and Cosmetics. John Wiley & Sons, Ltd, Chichester, UK. pp 263-283. ISBN 978-1-118-46061-0.

CONFERENCES

- ☒ **Tchokponhoué D.A.**, Achigan-Dako E.G N'Danikou S., Nyadanu D., Hale, I., Odindo A.O. and Sibiya J. 2021. Divergence among Upper Guinea and Dahomey Gap Populations of the Sisirè berry (Syn: Miracle

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Fruit) Plant [*Synsepalum dulcificum* (Schumach. &Thonn.) Daniell] in West Africa. Oral presentation. 3rd African Plant Breeders Association Conference. **23rd - 26th, October 2023, Benguerir, Morocco.**

- ☒ **Tchokponhoué D.A.**, Sibiya J., N'Danikou S., Nyadanu D., Kahane, R., Odindo A.O. and Achigan-Dako E.G. **2021**. Comparative analysis of end-users desired breeding traits in the miracle plant (*Synsepalum dulcificum*) in West Africa. Poster presentation. 2nd African Plant Breeders Association Conference. **25th-29th, October 2021, Kigali, Rwanda.**
- ☒ **Tchokponhoué D.A.**, Sibiya J., N'Danikou S., Nyadanu D., Houeto J., Odindo A.O. and Achigan-Dako E.G. **2020**. Phenotypic variation in West African accessions of miracle plant [*Richardella dulcifica* (Schumach & Thonn.) Baehni] Daniell. Oral presentation. 13th Southern Africa Plant Breeding Association Conference. **8th – 11th, March 2020, Pretoria, South Africa.**
- ☒ **Tchokponhoué D.A.**, N'Danikou S. and Achigan-Dako E.G. **2019**. Evidence of recalcitrance in the miracle berry *Synsepalum dulcificum* (Schumach & Thonn.) Daniell. Oral presentation. Launching Conference of the African Plant Breeders Association. **25th – 29th October 2019, Accra, Ghana.**

MANUSCRIPT REVIEW

Scientific Reports (Nature Publishing group), **Journal of Plant Ecology** (Oxford University Press), **Scientia Horticulturae** (Elsevier), **Heliyon** (Elsevier), **PeerJ** (PeerJ), **HortScience** (American society of Horticulture), **Sustainability** (MDPI), **Forests** (MDPI), **Agronomy** (MDPI), **Agriculture** (MDPI).

PROFESSIONAL MEMBERSHIP

- ☒ African Plant Breeders Association (APBA)
- ☒ International Society for Seed Science (ISSS)

REFEREES

Prof. Dr Ir Enoch G. Achigan-Dako Head of Laboratory of Genetics, Horticulture and Seed Science (GBioS) School of Plant Sciences, Faculty of Agronomic Sciences University of Abomey-Calavi, 01 BP 526 Cotonou, Republic of Benin Telephone. (+229) 95 39 3283	Dr. Julia Sibiya Senior Lecturer – Plant Breeding AGRA – IMCDA Project Manager EU – Mobreed Local coordinator School of Agricultural, Earth and Environmental Sciences University of KwaZulu-Natal P.Bag X01, Scottsville 3209, Pietermaritzburg, South Africa Telephone: +27 33 260 6246
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Prof Iago Hale Department of Agriculture, Nutrition, and Food Systems, University of New Hampshire, Durham, NH, USA Telephone: (603) 862-4653, E-mail: Iago.Hale@unh.edu Rgate: https://www.researchgate.net/search.Search.html?query=iago+hale&type=publication	