

**OBAFEMI AWOLOWO UNIVERSITY, ILE IFE, NIGERIA**

**CURRICULUM VITAE**

**A. Personal Data:**

- |     |                                    |  |
|-----|------------------------------------|--|
| 1.  | Full Name:                         | Babajide Olugbeminiyi ODU  |
| 3.  | Contact Details:                   |  |
|     | (a) Physical Address:              | Department of Crop Production and Protection,<br>Obafemi Awolowo University, Ile Ife, Nigeria  |
|     | (b) E-mail Addresses:              | <a href="mailto:bodu@oauife.edu.ng">bodu@oauife.edu.ng</a> ;<br><a href="mailto:babajide_odu@hotmail.com">babajide_odu@hotmail.com</a> |
|     | (c) Mobile Phone Number:           | +234 8033608495  |
|     | (d) Researchgate:                  | <a href="https://www.researchgate.net/profile/Babajide-Odu-2">https://www.researchgate.net/profile/Babajide-Odu-2</a>                  |
| 4.  | Nationality:                       | Nigerian   |
| 5.  | State of Origin:                   | Ogun   |
| 9.  | Marital Status:                    | Married  |
| 10. | Number of Children and their Ages: | One (18 years)   |
| 11. | Next of Kin:                       | Mrs. Janet Aderonke Odu  |
| 12. | Contact Details of Next of Kin:    |  |
|     | (a) Physical Address:              | House 5, Road 20C, Senior Staff Quarters,<br>Obafemi Awolowo University, Ile Ife, Nigeria  |
|     | (b) E-mail Address:                | <a href="mailto:janemocat@hotmail.com">janemocat@hotmail.com</a>   |
|     | (c) Mobile Phone Numbers:          | +234 8034236920  |
| 14. | Status of First Appointment:       | Lecturer I   |
| 15. | Present Status:                    | Professor  |
| 19. | Faculty:                           | Agriculture  |
| 20. | Department:                        | Crop Production and Protection   |

**B. Educational Background**

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|----|--|-------------|
| 1. | <b>Educational Institute attended with dates</b>           |             |
|    | a. Institute of Agricultural Research and Training, Akure  | 1985 – 1987 |
|    | b. Obafemi Awolowo University, Ile Ife                     | 1988 – 1992 |
|    | c. University of Ibadan, Ibadan                            | 1995 – 1998 |
|    | d. University of Ibadan, Ibadan                            | 1998 – 2002 |
|    | e. The Hebrew University of Jerusalem, Rehovot, Israel     | 2009        |
| 2. | <b>Academic and Professional Qualifications with dates</b> |             |
|    | a. Ordinary Diploma  | 1987        |
|    | b. B.Agric., Plant Science                                 | 1992        |
|    | c. M.Sc. Botany (Plant Pathology)                          | 1998        |
|    | d. Ph.D. Botany (Plant Virology)                           | 2002        |
|    | e. Certificate in Biotechnology                            | 2009        |

**Certificate Training Courses Attended**

- |    |  |
|----|--|
| a. | Statistical Computing and Data Analysis for Graduate Research Fellows workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 9 – 27 February, 1998. |
| b. | Communication Skills Workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 25 – 29 May, 1998.  |

- c. Writing a Grant Winning Proposal workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 16 – 22, September, 1998.
- d. Statistical Computing and Data Analysis for Graduate Research Fellows workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 8 – 26 February, 1999.
- e. Training Course in GGE Biplot Analysis and Genotype-by-Environment Interaction for Breeders, Agronomists, Pathologists, Postharvest Specialists, Biotechnologists, Microbiologists, Natural Scientists and Biometricians, 17 -18 May, 2006, International Institute of Tropical Agriculture (IITA) Ibadan.
- f. IITA/IPM-CRSP/USAID International Plant Diagnostic Network (IPDN) Training workshop, 5<sup>th</sup> – 8<sup>th</sup> September 2006, International Institute of Tropical Agriculture (IITA) Benin Republic.
- g. MASHAV 7<sup>th</sup> International Post-graduate Course in Biotechnology in Agriculture in a World of Global Environmental Changes, 17<sup>th</sup> February – 18<sup>th</sup> March, 2009, The Hebrew University of Jerusalem, Rehovot Campus, Israel.
- h. Department of International Cooperation, Ministry of Science and Technology Sponsored International Training workshop on Potato Disease Detection, 21<sup>st</sup> August – 9<sup>th</sup> September, 2009, Supervision and Testing Center for Virus-free Seed Potatoes Quality of the Ministry of Agriculture of the Peoples' Republic of China, Harbin, China.

### 3. Other Distinctions and Awards with date

- a. **Scholarships:** Nil
- b. **Fellowships:**
  - i. International Institute of Tropical Agriculture Graduate Student Research Fellowship 1995
  - ii. Gatsby Charitable Foundation Fellowship (GCF), United Kingdom 1998
- c. **Research Grants:**
  - i. British £90,000 Gatsby Charitable Foundation Research Grant (GCF) 1998
  - ii. U.S. \$10,000 Generation Challenge Programme (GCP) on Preparing IITA-Cassava reference Germplasm for Distribution and Association Mapping 2006
  - iii. Seed money for Laboratory Establishment (₦400,000) 2014
  - iv. Vegetable Crop Research Grant (₦2,200,000) from NICANVEG, Osun State University, Osogbo 2017
- d. **National Awards:** Nil
- e. **International Awards:** Nil

### C Work Experience with Dates

#### 1. Previous Work Experience Outside the University Systems with dates:

- a. Obasanjo Farms Nig. Ltd., Ota, Ogun State Sept. 1997 – Aug. 1998
- b. Agricultural Officer, NYSC Farms, Abakaliki Road, Enugu State Oct. 1992 – Sept. 1993
- c. Junior Research Fellow, Institute of Agricultural Research and Training, Ibadan 1<sup>st</sup> July – 31<sup>st</sup> Dec. 1997
- d. Consultant Virologist, International Institute of Tropical Agriculture, Ibadan 1<sup>st</sup> Jan. 2002 – 31<sup>st</sup> Mar. 2003

- e. Germplasm Health Scientist, International Institute of Tropical Agriculture, Ibadan 1<sup>st</sup> Mar. 2004 – 28<sup>th</sup> Feb. 2008

2. **Previous Work Experience in other Universities with dates:** Nil

3. **Work Experience in the Obafemi Awolowo University:**

- |    |                 |   |
|----|-----------------|---|
| a. | Lecturer I      | 1 <sup>st</sup> July 2008 – 30 <sup>th</sup> Sept. 2010 |
| b. | Senior Lecturer | 1 <sup>st</sup> Oct. 2010 - 30 <sup>th</sup> Sept. 2014 |
| c. | Reader          | 1 <sup>st</sup> Oct. 2014 – 30 <sup>th</sup> Sept. 2018 |
| d. | Professor       | 1 <sup>st</sup> Oct. 2018 - Date                        |

4. **Courses being taught in the Current Academic Session:**

**Undergraduate Courses:**

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|----|--|
| a. | CPP 202 - Principles of Plant Science                |
| b. | CPP 304 - Plant Pathology                            |
| c. | CPP 405 - Greenhouse Operation                       |
| d. | CPP 406 - Nursery Practices and Vegetable Production |
| e. | CPP 506 - Plant Disease Control                      |

**Postgraduate Courses:**

- |    |  |
|----|--|
| a. | CPP 641 - Diseases of Tropical Crops             |
| b. | CPP 642 - Host-Parasite Interaction              |
| c. | CPP 644 - Plant Virology                         |
| d. | CPP 645 - Principles of Plant Disease Control    |
| e. | CPP 647 - Research Techniques in Plant Pathology |
| f. | CPP 649 - Seed Pathology                         |

5. **Graduate Student Supervision:**

- |      |  |                    |
|------|--|--------------------|
| a.   | <b>By Research:</b>  | <b>12 (Twelve)</b> |
| i.   | Reg. No. AGP10/11/H/1437. Oke, K.E. Incidence and Distribution of Major Tomato Leaf Curl and Mosaic Virus Diseases in South West Nigeria. M.Phil.                            |                    |
| ii.  | Reg. No. SCP10/11/H/0108. Kayode A.B. Molecular Identification and Distribution of Cucumber mosaic virus infecting Tomatoes in Selected farms in Southwestern Nigeria. M.Sc. | Defended           |
| iii. | Reg. No. SCP11/12/H/0055. Adu, A.A. Isolation, Characterization and Antimicrobial Effect of Humic acid obtained from soil at different sites in Ile Ife. M.Sc.               | Defended           |
| iv.  | Reg. No. AGP12/13/H/0462. Ayandokun, A.E. Molecular characterization and Sequence analysis of <i>Telfairia mosaic virus</i> . M.Phil.  | Defended           |
| v.   | Reg. No. SCP13/14/H/0212. Kayode A.B. Determination of the Occurrence and Molecular Characterization of major Viruses Infecting Tomatoes in Southwestern Nigeria. Ph.D.      | Defended           |
| vi.  | Reg. No. AGP14/15/R/0039. Oshundahunsi, B.O. Incidence and Severity of Yam mosaic virus among Selected Saved Seed Yams in Farmers' Field. M.Phil.                            | Defended           |

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|-------|--|-------------|
| vii.  | Reg. No. AGP16/17/H/0163. Oladele, O. R. Transmission Efficiency of Maize streak virus by Leafhoppers Associated with Virus Epidemics in Maize. M.Phil.  | Defended    |
| viii. | Reg. No. AGP16/17/H/1119. Adeife, A. B. M.Sc.  | In progress |
| ix.   | Reg. No. AGP16/17/H/0722. Fasusi, S. A. Molecular analysis of <i>Cucumber mosaic virus</i> isolates from selected vegetables in Southwestern Nigeria. M.Phil.                                      | Defended    |
| x.    | Reg. No. AGP16/17/H/0218. Ayandokun, A.E. Distribution, Phylogenesis and Assessment of Diagnostic tools of Rice yellow mottle virus and Biological Control of its Insect Vectors in Nigeria. Ph.D. | In progress |
| xi.   | Reg. No. AGP17/18/H/0039. Oshundahunsi, B.O. Effect of <i>Yam mosaic virus</i> on Seed Yam Degeneration and Control Intervention. Ph.D.  | Defended    |
| xii.  | Reg. No. AGP17/18/H/0502. Bamilosin, K. M.Sc.  | In Progress |
| b.    | <b>By long essay:</b>  | Nil         |

6. **Current Undergraduate Student Supervision:** 5

#### D. Membership of Professional Bodies

1. African Crop Science Society
2. Intern. Society for Tuber and Root Crops - African Branch (ISTRC-AB)
3. American Phytopathological Society, Membership No. 229479
4. American Society of Agronomy, Membership No. 451067
5. Nigerian Society for Plant Pathology
6. Nigerian Society for Plant Virology

#### E. Publications

##### 1. **Theses/Dissertation:**

- a. Odu, B.O. (1997) Isolation, characterisation and identification of a potyvirus from *Dioscorea alata* L. (water yam) in Nigeria. M.Sc. Thesis, University of Ibadan, Ibadan, Nigeria. 60 pp.
- b. Odu, B.O. (2002) Identification of resistance to yam viruses in *Dioscorea* species and genetic analysis of resistance to Yam mosaic virus in *Dioscorea rotundata* (Poir.). Ph.D. Thesis, University of Ibadan, Ibadan, Nigeria. 183 pp.

##### 2. **Books/Monographs:**

- a. Authored: Nil
- b. Edited:
  - i. Hughes, J.d'A and **Odu, B.O.** (Eds.) (2003). Plant Virology in sub-Saharan Africa, Proceedings of a conference organized by International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria, 4-8 June 2001. Pp 589.

##### 3. **Contribution to Books:**

- i. **Odu B.O.**, Coyne D. and Kumar P.L. (2016). Adapting a yam seed technique to meet farmers' criteria. In: J. Andrade-Piedra, J.W. Bentley, C. Almekinders, K. Jacobsen, S. Walsh and G. Thiele, Case Studies of Roots, Tuber and Banana Seed Systems. RTB Working Paper No. 2016-3, Chapter 4, pp. 46-63. ISSN 2309-6586.

#### 4. Published Journal Articles

- ii. **Odu, B.O.**, Hughes, J.d'A., Shoyinka, S.A. and Dongo, L.N. (1999). Isolation, Characterization and identification of a potyvirus from *Dioscorea alata* L. (water yam) in Nigeria. *Annals of Applied Biology*, 134:65-71.
- iii. **Odu, B.O.**, Hughes, J.d'A., Asiedu, R., Ng N.Q., Shoyinka, S.A. and Oladiran, A.O. (2004). Responses of white yam (*Dioscorea rotundata* Poir.) cultivars to inoculation with three viruses. *Plant Pathology* 53: 141-147.
- iv. **Odu, B.O.**, Asiedu, R., Hughes, J.d'A., Shoyinka, S.A. and Oladiran, A.O. (2004). Identification of resistance to *Yam mosaic virus* (YMV), genus *Potyvirus* in white Guinea yam (*Dioscorea rotundata*). *Field Crops Research* 89 (1): 97-105.
- v. **Odu, B.O.**, Asiedu, R., Shoyinka, S. A. and Hughes, J. d'A. (2006). Reaction of White Guinea Yam (*Dioscorea rotundata* Poir.) Genotypes to Virus Diseases in Four Agroecological Zones in Nigeria. *Journal of Phytopathology* 154: 688-693.
- vi. **Odu, B.O.**, Asiedu, R., Shoyinka, S. A., Hughes, J. d'A. (2006). Screening of Water Yam (*Dioscorea alata* L.) Genotypes for Reactions to Viruses in Nigeria. *Journal of Phytopathology* 154: 716-724.
- vii. Egesi, C.N., **Odu, B.O.**, Ogunyemi, S.O., Asiedu, R. and Hughes, J. (2007). Evaluation of Water Yam (*Dioscorea alata* L.) Germplasm for Reaction to Yam Anthracnose and Virus Diseases and their Effect on Yield. *Journal of Phytopathology* 155 (9): 536–543.
- viii. Odedara, O.O., Hughes, J. d'A., Odebode, A.C. and **Odu, B.O.** (2008). Multiple virus infections of Lablab (*Lablab purpureus* (L.) Sweet) in Nigeria. *Journal of General Plant Pathology*, 74 (4): 322-325.
- ix. Odedara, O.O., Hughes, J.d'A., **Odu, B.O.** (2009). Occurrence of latent virus infection in visually-rated cowpea (*Vigna unguiculata* L. Walp) seedlings. *Archives of Phytopathology and Plant Protection*, 42 (9): 882-890.
- x. Ojuederie, O.B., **Odu, B.O.** and Ilori, C.O. (2009). Serological detection of seed-borne viruses in cowpea regenerated germplasm using protein-A sandwich enzyme linked immunosorbent assay. *African Crop Science Journal* 17(3):125 – 132.
- xi. **Odu, B.O.**, Hughes, J.d'A. and Mahalakshmi, V. (2009). Practical application of virus diagnostics in 'cleaning-up' yam and cassava germplasm for distribution. *Ife Journal of Agriculture* 24: 151-161.
- xii. Sobowale, A.A., Jonathan, S.G., **Odu, B.O.**, Ayansina, A.D.V. and Ojikutu, T.K. (2010). *Trichoderma longibrachiatum* as an antagonist of *Botryodiplodia theobromae*. *Archives of Phytopathology and Plant Protection*, 43(5): 479-484.
- xiii. Okorogri, E.B., Adetimirin, V.O., Ssemakula, G., **Odu, B.** and Dixon, A.G.O. (2010). Rate of re-infection of tissue culture-derived Latin American and East and Southern African cassava genotypes by mosaic disease. *African Journal of Biotechnology* 9 (51): 8748-8753.
- xiv. Popoola, J. O., Adegbite, A. E., Obembe, O. O., Adewale, B. D. and **Odu, B. O.** (2011). Morphological intraspecific variabilities in African yam bean (AYB) (*Sphenostylis stenocarpa* Ex. A. Rich) Harms. *Scientific Research and Essay* 6(3): 507-515.

- xv. **Odu, B.O.**, Asiedu, R., Shoyinka, S.A. and Hughes, J.d'A. (2011). Analysis of resistance to *Yam mosaic virus* genus *Potyvirus* in white Guinea yam (*Dioscorea rotundata* Poir.) genotypes. *Journal of Agricultural Sciences* 56 (1): 1-13.
- xvi. Adesoye, A.I., Okooboh, G.O., Akande, S.R. V, Balogun, M.O., **Odu, B.O.** (2011). Effect of Phytohormones and genotypes on meristem and shoot tip culture of *Telfairia occidentalis* Hook F. *Journal of Applied Biosciences* 49: 3415-3424.
- xvii. Adeniji, M. A., Shoyinka, S.A., Ikotun, T., Asiedu, R., Hughes, J.d'A. and **Odu, B.O.** (2012). Yield loss in Guinea Yam (*Dioscorea rotundata* Poir.) due to Infection by *Yam mosaic virus* (YMV) genus *Potyvirus*. *Ife Journal of Science* 14 (2): 237-244.
- xviii. Kareem, K.T., **B.O. Odu**, V.C. Umeh, V.A. Chikaleke, K.E. Oke, O. Arogundade, A.O. Adediji, and O.O. Odedara, (2013). Incidence and Distribution of *Citrus tristeza virus* in Different Varieties of *Citrus* Cultivars in Ibadan, Southwest Nigeria. *Journal of Applied Horticulture* 15(3): 183-186.
- xix. Kayode, A.B., **Odu, B.O.**, Ako-Nai, K.A. and Alabi, O.J. (2014). Occurrence of *Cucumber mosaic virus* Subgroups IA and IB Isolates in Tomatoes in Nigeria. *Plant Disease* 98(12):1750. <http://dx.doi.org/10.1094/PDIS-08-14-0844-PDN>.
- xx. Kareem K.T., **Odu B.O.**, Arogundade O., Oyedeji E.O. and Adediji A.O. (2014). Concentration and distribution of *Xanthomonas axonopodis* in Citrus fruits. *Nigerian Journal of Plant Protection* 28 (1):14-20.
- xxi. Samuel C. J., Adebayo A. A., Olayinka A and **B. O. Odu** (2018). Growth, Nodulation and Nitrogen Fixation by Cowpea (*Vigna unguiculata* (L.) Walp) Cultivars as Affected by Cowpea mosaic virus and Starter Nitrogen. *Nigerian Journal of Soil Science* 28: 106 – 113.
- xxii. Kayode A., **Odu B. O.**, Oke K. E., Odedara O. O. and Elum C. G. (2019). African Journal of Microbiology Research Occurrence of Cucumber mosaic virus subgroup IA and IB isolates in pepper in Nigeria. *African Journal of Microbiology Research* 13 (17):298-308. DOI: [10.5897/AJMR2018.9007](https://doi.org/10.5897/AJMR2018.9007).
- xxiii. Thomas O. O., **Odu B. O.** and Adekunle O. K. (2019). Interaction of Root-knot Nematode and *Cowpea mild mottle virus* (CPMMV) Infection on Growth and Yield of Cowpea. *Ife Journal of Science and Technology* 3(1) 21- 38.
- xxiv. Oyerinde, R. M., Soyelu, O. J. and **Odu, B. O.** (2019). Efficacy of Selected Beauveria and Metarhizium Isolates against the Common House Fly, *Musca domestica* L. [Diptera: Muscidae]. *Nigerian Journal of Entomology* Vol. 35: 111-120. DOI: 10.36108/NJE/9102/53.01.01.
- xxv. Soyelu O. J. Oyerinde R. M., **Odu B. O.** and Okonji R. E. (2020). Effect of Fungal Infection on Defence Proteins of *Musca domestica* L. and Variation of Virulence with Temperature. *J. Applied Science and Environmental Management* Vol. 24 (3) 473- 476. DOI: <https://dx.doi.org/10.4314/jasem.v24i3.12>.
- xxvi. Adesuyi A. A., **Odu B. O.** And Adekunle O. K. (2022). Interaction Effects of Cowpea Mild Mottle Virus (CPMMV) and Root-Knot Nematode Infections on Growth and Yield of Cowpea (*Vigna unguiculata* L. Walp.). *Ife Journal of Agriculture* 34(1): 143-157.
- xxvii. Adeoye A. O., **Odu B. O.** and Adekunle O. K. (2022). Effects of interaction between *Meloidogyne incognita* and Cowpea mild mottle virus on soybean. *Archives Of Phytopathology And Plant Protection*. DOI: 10.1080/03235408.2022.2139750

5. **Published Refereed and Edited Conference**

**Proceedings:**

***Refereed Conference Proceedings***

- xxviii. **Odu, B.O.**, Shoyinka, S.A., Hughes, J.d'A., Asiedu, R. and Oladiran, A.O. (2001). Yam viruses of Nigeria. Proceedings of the 7<sup>th</sup> Triennial Symposium of the International Society of Tropical Root Crops-African Branch, Cotonou, Benin, 12-16 October 1998, 631-633.
- xxix. Kenyon, L., Shoyinka, S.A., Hughes, J.d'A. and **Odu, B.O.** (2003). An overview of viruses infecting yams in sub-Saharan Africa. *In: Plant Virology in Sub-Saharan*, Proceedings of a conference organized by International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria 4-8 June 2001, 432-439 edited by Hughes, J.d'A. and **B.O. Odu**.
- xxx. Asiedu, R., Mignouna, H., **Odu, B.O.** and Hughes, J.d'A. (2003). Yam breeding. *In: Plant Virology in sub-Saharan African*, Proceedings of a conference organized by International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria 4-8 June 2001, 466-475 edited by Hughes, J.d'A. and **B.O. Odu**.
- xxxii. Adewale, B. D., Kehinde, O. B., **Odu, B. O.** And Dumet, D. J. (2007). The potentials of African yam bean (*Sphenostylis stenocarpa* Hochst. Ex. A. Rich) Harms in Nigeria: character distribution and genetic diversity. 5<sup>th</sup> International Symposium on New Crops and Uses: their role in a rapidly changing world. 3-4 September 2007. The University of Southampton, Southampton, U.K., 265 – 276.
- xxxiii. Kayode, A. B., Oke, K. E., **Odu, B. O.** and Taiwo, S. O. (2017). Molecular characterization of *Cucumber mosaic virus* infecting pepper in Southwestern Nigeria. Proceedings of the 35<sup>th</sup> Annual Conference of the Horticultural Society of Nigeria, Kabba, Kwara State, Nigeria. 544-550.
- xxxiiii. Oke, K. E., Kayode, A. B., **Odu, B. O.** and Taiwo, S. O. (2017). Incidence and distribution of mixed infection of *Cucumber mosaic virus* and *Pepper veinal mottle virus* in Ibeju Lekki/Epe, Lagos State, Nigeria. Proceedings of the 35<sup>th</sup> Annual Conference of the Horticultural Society of Nigeria, Kabba, Kwara State, Nigeria. 685-689.

6. **Articles accepted for Publication:**

Nil

7. **Manuscripts submitted for Publication:**

- i. Partial Characterization and Phylogeny of *Telfairia mosaic virus* in Two Southwest States in Nigeria. *Archives of Phytopathology and Plant Protection*.

8. **Creative Work:**

Seven (7) Coat protein (CP)-specific sequences of *Cucumber mosaic virus* isolates infecting tomato plants in southwest Nigeria deposited at the GenBank

- i. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-ID: GenBank accession numbers KM091952
- ii. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-OLV: GenBank accession numbers KM091953
- iii. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-NH: GenBank accession numbers KM091954
- iv. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-IY: GenBank accession numbers KM091955
- v. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-ORI: GenBank accession numbers KM091956

- vi. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-IW: GenBank accession numbers KM091957
- vii. Kayode, A. B., **Odu, B. O.**, Ako-Nai, K. A. and Alabi, O. J. (2014). SWN-IF: GenBank accession numbers KM091958

9. **Technical Reports:** Nil

10. **Papers and Works in Preparation:**

- i. *In vitro* Selection of Virus-free Cassava (*Manihotis esculenta* Crantz) Tissue Culture Plantlets.
- ii. Application of IC-PCR for the detection of *African cassava mosaic virus* (ACMV), genus *Begomovirus* and *East African cassava mosaic virus* (EACMV), genus *Begomovirus*.
- iii. Prevalence and incidence of *Maize streak virus* genus *Mastrevirus* in South western Nigeria.
- iv. Effect of Positive Selection on Incidence and Severity of *Yam mosaic virus* (YMV) in White Yam (*Dioscorea rotundata*) in Farmers' Fields in Nigeria.
- v. Temporal, Spatial and Molecular Analysis of *Yam mosaic virus* (YMV) Re-infection in Yam Field.
- vi. Effect of Weather Parameters on the Abundance of Aphid vectors of *Yam mosaic virus* (YMV) in the field
- vii. Comparative study of the incidence of Tomato spotted wilt virus (TSWV) and Cucumber mosaic virus (CMV) infecting tomato in Southwestern Nigeria.
- viii. Molecular characterization of *Cucumber mosaic virus* infecting pepper in Southwestern Nigeria.

**F. Professional Accomplishment:**

1. A significant achievement was the isolation of *Dioscorea alata virus* (DAV) genus *Potyvirus* from the host plant (*D. alata*) which until then has been a difficult task, characterization of the virus, and subsequent development of a rapid and reliable serological detection method for the virus.
2. The identification of five cultivars that are resistant to YMV, with one expressing resistance to all four viruses studied (YMV and *Cucumber mosaic virus* (CMV) genus *Cucumovirus*, *Dioscorea alata virus* (DAV) genus *Potyvirus*, *Dioscorea alata bacilliform virus* (DaBV) genus *Badnavirus*). This was made possible with the development of reliable diagnostic methods.
3. The production of antibodies to the respective viruses infecting yams including YMV, CMV, DAV and DaBV).
4. The identification of previously unidentified vectors of the viruses (YMV, CMV, DAV) infecting *D. rotundata* studied after extensive survey and transmission studies.
5. The establishment of inheritance of resistance to YMV in the *D. rotundata* cultivars evaluated
6. The establishment of certification systems for seed and vegetatively propagated crops in International Institute of Tropical Agriculture (IITA) genebank.
7. I have been involved in formulating policies for Regional sustainable yam production systems as a member of the Stakeholders' Meeting on Strengthening Capacity for Yam Research for Development in Central and Western Africa (SCYReC)" project, funded by the African, Caribbean and Pacific Group of States (ACP Group) of the European Community (EU).
8. I have mentored many scientists in the field of virology, who are presently involved in cutting – edge researches in other institutions.

**G. Conferences, Seminars and Workshops Attended With Dates:**

1. Seventh Triennial Symposium of the International Society of Tropical Root Crops-African Branch, held at Cotonou, Republic of Benin, 12-16 October 1998.  
**Paper Presented:** Yam viruses of Nigeria.



2. Fifth African Crop Science Society Conference, held at Lagos, Nigeria, 21-26 October 2001.
3. Plant Virology in Sub-Saharan, a conference organized by International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria 4-8 June 2001.
4. Eight Triennial Symposium of the International Society of Tropical Root Crops-African Branch, held at International Institute of Tropical Agriculture (IITA), Nigeria.
5. Statistical Computing and Data Analysis for Graduate Research Fellows workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 9 – 27 February, 1998.
6. Communication Skills Workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 25 – 29 May, 1998.
7. Writing a Grant Winning Proposal workshop, International Institute of Tropical Agriculture, Ibadan, Nigeria. 16 – 22, September, 1998.
8. Workshop on the Production and Post-Harvest Technology of the yam tuber organized by the Department of Biochemistry, University of Benin, Nigeria. 1-2 April 1999.
9. Annual Collaborators meeting of Gatsby-Funded Biotechnology Projects, held at International Institute of Tropical Agriculture, Ibadan, 24<sup>th</sup>-26<sup>th</sup> November 1999
10. Annual Collaborators meeting of Gatsby-Funded Biotechnology Projects, held at John Innes Center (JIC), Norwich, United Kingdom, 17<sup>th</sup>-18<sup>th</sup> September 2001.
11. Challenge Generation Programme, Annual Research Meeting, 12-16 September, 2007. Benoni, South Africa.  
**Paper Presented:** Preparing IITA-cassava reference collection for distribution and association mapping.
12. International Conference on Bioenergy: Harnessing Plant Metabolism, held at The Otto Warburg Minerva Center for Agricultural Biotechnology, The Hebrew University of Jerusalem, 24 – 25 February, 2009, Rehovoth, Israel.
13. Stakeholders' Meeting on Strengthening Capacity for Yam Research for Development in Central and Western Africa (SCYReC)" project, funded by the African, Caribbean and Pacific Group of States (ACP Group) of the European Community (EU), July 15-16, 2010, Agura Hotel, Abuja.
14. First Biotechnology World Congress, held at Dubai Men's College, 12-16 February, 2012, Dubai, United Arab Emirates.  
**Paper Presented:** Yield loss in yam (*Dioscorea rotundata*) due to infection by *Yam mosaic virus* (YMV) genus *Potyvirus*.
15. Workshop on Measures to Control the Spread of Maize Lethal Necrosis in Africa, held at International Institute of Tropical Agriculture (IITA), Ibadan, 26<sup>th</sup> – 28<sup>th</sup> September, 2017.
16. American Society of Agronomy Conference, held at Minneapolis, Minnesota, 15<sup>th</sup> – 18<sup>th</sup> November 2015.  
**Paper Presented:** Occurrence of *Cucumber mosaic virus* Subgroups IA and IB Isolates in Tomatoes in Nigeria.

## H. Current Research Activities:

1. **Tomato Programme**
  - i. In collaboration with World Vegetable Centre (WorldVeg, formerly AVRDC), Tainan, Taiwan: APSA Ty multi-locational Trials for expression of Tomato yellow leaf curl virus resistance gene.
  - ii. Identification of viruses infecting tomato in Nigeria and, their molecular and biological characterization.
  - iii. Identification of alternate/alternative hosts of viruses infecting tomato in Nigeria.
2. **Maize Programme**
  - iv. Prevalence and incidence of viruses infecting maize in south western Nigeria.
  - v. Identification of alternate/alternative hosts of viruses infecting maize.

vi. Studies on vectors of viruses infecting maize.

### 3. **Cassava Projects**

Collaboration with Scientist at the National Root Crop Research Institute (NRCRI), Umudike, Abia State in the following projects:

- vii. NEXTGEN Cassava Breeding project
- viii. West Africa Virus Diagnostics project especially as it deals with insect-virus-plant interactions in disease transmission and epidemiology

### 4 **Other Projects**

- ix. Citrus tristeza virus research in Nigeria with the aim of enhancing management of Citrus tristeza virus (CTV) based on disease suppression; determining diversity of CTV strain; and developing improved methods to detect, identify, and distinguish CTV strains identified in Nigeria. In collaboration with NIHORT, Ibadan.
- x. Isolation and identification of viruses infecting some medicinal plants of interest.
- xi. Identification of alternate hosts of viruses infecting yams (*Dioscorea* spp.).
- xii. Temporal abundance and distribution of vectors of viruses infecting *Dioscorea* spp. Plots in Obafemi Awolowo University Teaching and Research Farm, Nigeria.
- xiii. Assessment of diagnostic tools of Rice yellow mottle virus, distribution and biological control of its insect vectors in Southwestern Nigeria.

## **I. Other Relevant Information**

### 1 **Service within the Department:**

- i. Member, Examination Coordination Committee 2008 – 2017
- ii. Member, Postgraduate Committee 2010 – 2017
- iii. Member, Equipment and Infrastructure Committee 2010 – 2012
- iv. Part V Staff Adviser 2009 – 2016
- v. Acting Head of Department 1<sup>st</sup> Oct. – 31<sup>st</sup> Dec., 2012.
- vi. Chairman, Examination Coordination Committee 2013 – 2016
- vii. Member, Consultancy Committee 2014 – 2016
- viii. Acting Head of Department 2016 – 2018

### 2. **Service within the Faculty:**

- i. Member, Faculty Review Panel 2008 – 2010; 2013 – 2014
- ii. Member, Faculty Board of Agriculture 2008 – date
- iii. Member, Faculty Board of Examiners 2008 – date
- iv. Member, Faculty Examination Coordination Committee 2008 – 2018
- v. Member, Faculty Greenhouse Committee 2009 – 2012
- vi. Member, Ife Journal of Agriculture Editorial Board 2012 – 2016
- vii. Chairman, Faculty Greenhouse Committee 2013 – 2016
- viii. Chairman, Faculty Postgraduate Committee 2016 – 2022

### 3. **Service within the University:**

- i. Member, Board of Natural History Museum, Obafemi Awolowo University. 2012 – 2016
- ii. Member, Board of Postgraduate College 2016 – 2022
- iii. Member, University 60<sup>th</sup> Anniversary Committee 2021
- iv. Director, University Research Office 2022 -

### 4. **Service outside the University:**

- i. External Examiner for MSc and PhD Thesis Defence
  - a. Federal University of Agriculture, Abeokuta
  - b. University of Ibadan, Ibadan

5. **Co-curricular Activities:**

- i. Reading
- ii. Listening to Music
- iii. Gardening

**J. Contribution to Knowledge:**

My research interests focus on virus diseases of yams (*Dioscorea* spp), tomato (*Lycopersicon esculentus*), cowpea (*Vigna unguiculata*), bambara groundnut (*Vigna subterranea*), some miscellaneous legumes and recently on citrus. A major emphasis is to develop an understanding of the relationships between viruses and their host plant on one hand, and their insect vectors on the other hand in yams.

A second area is the management of plant virus diseases based on a sound understanding of how virus-insect vector-plant host relationships affect the epidemiology and ecology of the disease. Finally, the development of appropriate, rapid and accurate diagnostics for the detection of viruses infecting these crops of interest is of utmost importance for the certification of germplasms intended for international exchange and dissemination to farmers prior to planting. It is of utmost importance for farmers to plant disease-free materials so as to maximize plants' productivity.

I have been involved in disseminating disease free plant materials to researcher and farmers all over the world. The research on the fundamental relationships between insects and viruses currently focuses on members of the Potyviridae and their aphid vectors. The Potyviruses are vectored specifically by different species of aphids. Also, the reactions of the different cultivated landraces to infections by all the viruses infecting *Dioscorea* spp in yam-growing areas in Africa has been investigated using mechanical inoculation and vector transmission methods. This is important in order to identify resistant genotypes among the collections in the genebank.

In recent years, Yam mosaic virus (YMV) has emerged as a serious disease problem in many seed yam producing areas of Nigeria, a major producer of yams in the world. The absence of sexual reproduction in vegetative propagated plants, such as yams, enables viruses to establish long-term infections and to be transmitted with high efficiency to daughter plants. Such permanent infections offer ideal conditions for long-term co-evolution of viruses with their host, but limited information is currently available on the diversity of RNA plant viruses infecting vegetatively propagated crops. This is a research area for the future. Presence of virus particles means fewer certified seed lots, loss of farm income, and increased initial virus inoculum levels in the next year commercial crop. My research has shown that yam cultivars differ not only in the percentage of tubers that become infected, but also in the rate that those infected tubers sprout and give rise to infected plants in subsequent years, and of course become foci of infection.

I have contributed immensely to the development of diagnostic tests, which has been employed in all yam producing countries, to provide an accurate picture of specific virus strains incidence and to ensure widely acceptable seed certification programs in order to limit the spread of the particularly damaging yam virus strains.

Recently, I have been involved in the detection of Cucumber mosaic virus (CMV) belonging to Subgroup 1A and IB, an ubiquitous pathogen, in tomato plant samples in a survey conducted in Southwestern states

of Nigeria. Also, Tomato mosaic virus was detected in leaf samples collected from Lagos state. Both cases were the first reports of the two viruses in Nigeria. These reports are useful for the agricultural Quarantine Agency in the country.

Signature

Date