

# CURRICULUM VITAE: DR. EKUNDAYO, T.C.

---

## A. Personal Data

1. **Full names:** EKUNDAYO Temitope Cyrus
2. **Place and Date of Birth:** Ise Ekiti, 30<sup>th</sup> April, 1985
3. **Detail of Contact Address:**  
**Postal Address:** University of Medical Sciences Ondo,  
Department of Biological Sciences, PMB  
536, Laje Road, Ondo City, Ondo State,  
Nigeria  
Emails: cyruscyrusthem@gmail.com  
tcekundayo@unimed.edu.ng  
Mobile: +2348133544641  
Skype: live:cyruscyrusthem

### Researcher links

- i. **Researchgate:**  
[https://www.researchgate.net/profile/Temitope\\_Ekundayo](https://www.researchgate.net/profile/Temitope_Ekundayo)
  - ii. **ORCID:** [orcid.org/0000-0002-7781-3507](http://orcid.org/0000-0002-7781-3507)
  - iii. **LiveDNA:** <http://livedna.org/234.11749>
  - iv. **Researcher ID:** H-3302-2015
  - v. **Googlescholar:**  
[https://scholar.google.com/citations?user=o\\_hvFk8AAAAJ&hl=en](https://scholar.google.com/citations?user=o_hvFk8AAAAJ&hl=en)
4. **Nationality:** Nigerian
  5. **State of Origin:** Ekiti
  6. **Senatorial District:** Ekiti South Senatorial District
  7. **Local Government Area:** Ise/Orun
  8. **Permanent Home Address:** 3, Olele Street, Ise Ekiti, Ekiti State
  9. **Marital Status:** Married
  10. **Number and Ages of Child(ren):** 1 (1+ year)
  11. **Next of Kin:** Ekundayo, Olapeju Y.
  12. **Details of Contact Address of Next of Kin:**
  13. **Date of Assumption of Duty:** 04-Jan-2016
  14. **Rank/status on First Appointment:** Assistant Lecturer
  15. **Present Status:** Lecture II
  16. **Date of Last Promotion:** 13-Sept-2019
  17. **Present Salary, Grade Level and Step:** CONUASS3 STEP1
  18. **Data of Confirmation of Appointment:** Nil
  19. **Faculty:** Science
  20. **Department:** Biological Sciences
  21. **Educational Institutions Attended (with dates):**
    - (a) **Tertiary:**
      - (i) University of Fort Hare, Alice, South Africa, 2016 – 2019
      - (ii) Federal University of Technology, Akure, Nigeria, 2012-2015
      - (iii) Federal University of Technology, Akure, Nigeria, 2006-2011
    - (b) **Secondary:** Ise Comprehensive High School, Ise Ekiti, 1998-2004
    - (c) **Primary:** St Paul's Anglican Primary School, Ise Ekiti, 1992-1998
  22. **Qualifications (with dates)**
    - (a) **Academic:**
      - (i) Ph.D. Microbiology 13/09/ 2019
      - (ii) M Tech., Environmental Microbiology (CGPA:4.72/5.0), 10/08/2015
      - (iii) B.Tech., Microbiology (CGPA: 4.09/5.0), 02/09/2011
  23. **Membership of Professional Bodies:**
    - (i) Nigerian Society for Microbiology (NSM)

- (ii) American Society for Microbiology (ASM)
- (iii) Society for Applied Microbiology (SfAM)
- (iv) Federation of European Microbiology Societies (FEMS)
- (v) Nigerian Bioinformatics and Genomics Network (NBGN)
- (vi) British Society for Antimicrobial Chemotherapy (BSAC)

#### 24. Grants and Awards

- (i) **The World Academy of Sciences (NRF –TWAS) African Renaissance Doctoral Fellowships (Grant Numbers: 99796 and 116382): National Research Foundation-Awarding Body:** National Research Foundation  
**Amount:** R120, 000 p.a (4 years)
- (ii) **Merit Scholarship for Master Students in Nigeria**  
**Awarding body:** Ekiti State Government, Nigeria  
**Amount:** #250,000
- (iii) **Merit Scholarship for Undergraduate Students in Nigeria**  
**Awarding body:** Ekiti State Government, Nigeria)  
**Amount:** #50,000 p.a
- (iv) **Merit Scholarship for Undergraduate Students in Nigeria**  
**Awarding body:** Odu'a Investment Company)  
**Amount:** #100,000 p.a
- (v) **Best poster presentation award at First Nigerian Bioinformatics Conference, held at Nigerian Institute of Medical Research, Yaba Lagos, Nigeria, 23 – 26 June 2019**

#### 25. Workshop and Training Attended

- i. The Open Water Symposium: Remote sensing and Sumo software training, held at the Institut agronomique et vétérinaire Hassan II (IAV) Rabat, Morocco, 28-31 October 2019.
- ii. Spring Course on Solar Energy and Photosynthesis – 2019, held at the Plant Science Complex University of Pretoria, South Africa, 23– 27 September 2019.
- iii. 4th TYAN International Thematic Workshop and 1st African Symposium on Big Data, Analytics and Machine Intelligence for Financial, Health and Environmental Inclusion in Developing Countries, held at Federal University of Technology Akure, Nigeria, 10 – 14 June 2019.
- iv. Interactive Nanoparticle Seminar - Good Things in Nano Packages, held at Anton Paar Southern Africa, Gazelle Close, Corporate Park South, Old Pretoria Road, South Africa. 3 – 4 April 2019.
- v. WGCAC Working with Pathogen Genomes - Cape Town 17-22 June 2018. Wellcome Genome Campus Advanced Course Working with Pathogen Genomes, held at University of Cape Town, South Africa 17-22 June 2018.
- vi. 2018 Synthetic Biotechnology Training Course for Developing Countries, jointly 1st TWAS Symposium on Plant Natural Product Synthesis by Microbes held at CAS-TWAS Centre of Excellence for Biotechnology (CoEBio), Institute of Microbiology Chinese Academy of Sciences, No. 1 Beichen West Road, Chaoyag District, Beijing 100101; 15-19, January, 2018.
- vii. Homology Modelling and Molecular Docking Workshop, University of Fort Hare, Alice Campus, Eastern Cape, South Africa; 10 – 13 July, 2017.
- viii. WRC 101 Workshops, Easter Cape, Eastlondon, ECAVA/Miriam Makeba building, University of Fort Hare, 24th May 2017.
- ix. Introduction to Statistical Analysis in MS Excel, University of Fort Hare, Alice Campus, King William's Town Rd Alice, 5700 South Africa, 30 August 2016.

- x. Basic Statistical Data Analysis using SPSS, University of Fort Hare, Alice Campus, King William's Town Rd Alice, 5700 South Africa, 23rd-24th August 2016,
  - xi. 2015 Biotechnology Training Course for Developing Countries held at CAS-TWAS Centre of Excellence for Biotechnology (CoEBio), Institute of Microbiology Chinese Academy of Sciences. No. 1 Beichen West Road, Chaoyang District, Beijing 100101.
- 26. Review of Academic and Professional Journal(s):**
- (i) Antonie van Leeuwenhoek, Elsevier
- 27. Work Experience:**
- (a) University:**
- (i) University of Medical Sciences Ondo, Nigeria (01/2016-present); **Responsibilities:** Teaching and research Register and counsel undergraduate students; Participate in curriculum development
  - (ii) Teaching Assistant, The Federal University of Technology Akure, Nigeria (05/2014-12/2015); **Responsibilities:** Assisted microbiology departmental postgraduate coordinator in postgraduate matters; Managed PG students' data and records; Invigilated undergraduate and graduate students' tests and examinations; Coordinated, supervised and assessed undergraduates' practical classes and reports; Participated in graduate students' admission processes; Marked and assessed students' assignments and examination papers; Motivated and supervised undergraduate theses as assigned by the academic advisors.
- (b) Others:**
- (i) Graduate Scientist, Nigerian Agricultural Quarantine Services, Moor Plantation, Apata, Ibadan Nigeria, January-September, 2012 (NYSC); **Responsibilities:** Designed protocols and diagnosed plant infections; Conducted seed health testing, reported and catalogued viable seeds; Performed plant tissue culturing and managed resultant plantlets; Performed electrophoresis, ELISA and PCR procedures on plant samples; Supervised and managed glass screen-houses for planting and research; Facilitated and Handled field trial and plant infection control practices; Supervised and trained students' interns
  - (ii)
- 28. Research Interests**
- i. Environmental and Molecular Microbiology
  - ii. Microbial Genetics and Microbial Ecology
  - iii. Emerging and infectious diseases/Biometeorology and Predictive Microbiology
  - iv. Water sanitation, freshwater health, Air and Space Microbiology
  - v. Microbial Biomolecules and Metabolic Engineering
  - vi. Infectious diseases, microbial eco-toxicological biomarkers of pollutants and Environmental modelling
  - vii. Quantitative microbial risk assessment and Monte Carlos procedures
  - viii. Machine Learning and Artificial intelligence
  - ix. Deep learning and data science
- 29. Courses Taught at the University Level**
- (a) Undergraduates Level:**
- i. BIO 111: General Principle of Biology I (100 level)
  - ii. MBL 221: General Microbiology (200 level)
  - iii. PBT 222: Principles of Plant Biotechnology (200 level)

- iv. MBL 312: Microbial Physiology and Metabolism (300 level)
- v. MBL 324: Biodeterioration (300 level)
- vi. BIO 411: Molecular Biology II (400 level)
- vii. PBT 413: Plant Reproduction (400 level)
- viii. MBL 416: Field Course (400 level)
- ix. MBL 425: Petroleum Microbiology (400 level)
- x. AEB 427: Environmental Pollution and Toxicology (400 level)

**30. Postgraduate Supervision:**

**Master's Degree:**

**Major Supervision:**

**I.**

**Doctorate Degree:**

**i.**

**Co-Supervision**

**31. Internal and External Examiner:**

**i. University of Fort Hare, South Africa, Department of Biochemistry and Microbiology**

- a) **Piliso S.S.**, Assessment of resistance determinant genes in *Escherichia coli* isolated from hospital effluents (Honor dissertation)
- b) **Qhama Bovungana**, Combinational antimicrobial therapy option for management of antimicrobial resistant *Escherichia coli* from environmental samples (Honor dissertation)
- c) **Zitumane Samkelisiwe**, Combinational antimicrobial therapy option for management of antimicrobial resistant *Listeria* species from environmental samples (Honor dissertation)

**32. Research in Progress**

**(a) On-going research:**

- (i) Global mapping of infectious diseases (*Vibrio*, *Listeria*, *Campylobacter*, *Listeria*, *Acinetobacter*, and *Salmonella*) outbreaks in the pre United Nations Millennium Development Goals (MDGs)/ Sustainable Development goals (Pre-MDGs/SDGs) and MDGs/SDGs era (1990 to 2019).
- (ii) PM2.5- and PM10-borne microorganisms, underlying climate variables and implications for public health.
- (iii) Mycotoxinomes, exposomes and exposomics of foods, agricultural, occupational and built environments.
- (iv)

**(b) Manuscripts submitted for publication:**

- (i) Ntshanka Z., **Ekundayo T. C.**, and Okoh A. I. (2020). Occurrence, molecular characterization and clinical resistome of vegetable-borne *Listeria monocytogenes* isolates. International Journal of Food Microbiology (under review).
- (ii) **Ekundayo, T. C.**, Makinde, O.S. and Okoh, A. I. (2019). Development of alternative dose response relationship incorporating immunocompromised

conditions for calculating *Plesiomonas shigelloides* infection risks. (To be submitted).

(iii) **Ekundayo, T.C.** and Okoh, A., 2019. The burden of *Plesiomonas shigelloides* diarrhoeal infection among surface-water-dependent populations (To be submitted).

(iv) **Ekundayo, T.C.** and Okoh, A., 2019. Probabilistic quantitative microbial risk assessment of health risks for *Plesiomonas shigelloides* from drinking and non-drinking uses of river water (To be submitted).

(v) **Ekundayo, T.C.** and Okoh, A., 2019. Ecological implications of intervening cross-seasonal variations and associated physicochemical events on *Plesiomonas shigelloides*' population density in aquatic milieu (To be submitted).

### 33. Publications

#### (a) Thesis / Dissertations:

- (i) Studies on the prevalence, viro-distribution and predictive disease modelling of *Plesiomonas shigelloides* in Tyhume, Kubusi and Kat rivers in the Eastern Cape Province, South Africa (**Ph.D.**), Promoter: Prof. Anthony I Okoh.
- (ii) Isolation and identification of fungi from agricultural wastes and sawmill soil for cellulase production 2015 (**M.Tech.**), Promoter: Prof. D. J. Arotupin.
- (iii) Optimization of process parameters for the biosynthesis of cellulase by *Aspergillus flavus* NSPR017 cultured on pretreated orange peels, 2010 (**B.Tech.**), Promoter: Prof. B. J. Akinyele.

#### (b) Journal Articles and accepted manuscripts

- (1) **Ekundayo, T.C.**, and Okoh, A.I. (2020). Global research trends on bioflocculant potentials in wastewater remediation from 1990 – 2019 using a bibliometric approach. *Letters in Applied Microbiology*. DOI: 10.1111/lam.13361. (accepted)
- (2) **Ekundayo, T.C.**, and Okoh, A.I. (2020). Systematic assessment of *Mycobacterium avium* subspecies *paratuberculosis* infections from 1911–2019: a growth analysis of association with human autoimmune diseases. *Microorganisms*, 8(8), p.1212. (**IF: 4.167**).
- (3) **Ekundayo, T.C.**, and Okoh, A.I. (2020). Molecular characterization, intra-species diversity and abundance of freshwater *Plesiomonas shigelloides* isolates. *Microorganisms*, 8(7), 1081. (**IF: 4.167**).
- (4) Igere, B. E., and **Ekundayo, T. C.** (2020). Global mapping of cholera *Vibrio* and outbreaks in the Pre-Millennium Development Goals (MDG)/Sustainable Development Goals (SDG) and MDGs/SDGs era of 1990–2019. *Microbial Pathogenesis*, 104319. (**IF: 2.914**)
- (5) **Ekundayo, T.C.**, Orimoloye, I.R, Ololade, O.O. and Okoh, A.I. (2020). Prioritization of health emergency research and disaster preparedness: a systematic assessment of corona virus disease 2019 (COVID-19) pandemic". (accepted on May 13, 2020) Book title: Data Science for COVID-19 to be published in Elsevier.

- (6) Orimoloye, I.R., Ekundayo, O.Y., Busayo, E.T., Afuye, G.A, Kalumba, A.M. and **Ekundayo, T.C. (2020)**. Assessment of global research trends in the application of data science, deep and machine learning to COVID-19 pandemic. (accepted on May 20, 2020) Book title: Data Science for COVID-19 to be published in Elsevier.
- (7) **Ekundayo, T.C.** and Okoh, A.I. (2019). Antimicrobial resistance in freshwater *Plesiomonas shigelloides* isolates: implications for environmental pollution and risk assessment. *Environmental Pollution*, p.113493. <https://doi.org/10.1016/j.envpol.2019.113493>, (IF: 6.792).
- (8) **Ekundayo, T.C.** and Okoh, A.I. (2019). Modelling the effects of physicochemical variables and anthropogenic activities as ecological drivers of *Plesiomonas shigelloides* distribution and freshwaters quality. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2019.05.129>. (IF: 6.551).
- (9) **Ekundayo, T.C.** and Okoh, A.I. (2018). Pathogenomics of Virulence Traits of *Plesiomonas shigelloides* that were deemed inconclusive by traditional experimental approaches. *Frontiers in Microbiology*, 9, p.3077. <https://doi.org/10.3389/fmicb.2018.03077>. (IF: 4.235).
- (10) **Ekundayo, T.C.** and Okoh, A.I. (2018). A global bibliometric analysis of *Plesiomonas*-related research (1990–2017). *PloS one*, 13(11), p.e0207655. <https://doi.org/10.1371/journal.pone.0207655>. **Impact factor: 2.776**.
- (11) **Ekundayo, T.C.** and Okoh, A.I. (2017). *Plesiomonas shigelloides* seventy years of systematics and taxonomy in perspective of the present-day diagnostic demands. *Research Journal of Medical Sciences*. 11: 103-113. DOI: 10.3923/rjmsci.2017.103.113.
- (12) **Ekundayo, T.C.** and Arotupin, D.J. (2016). Repression of aflatoxigenic traits in *Aspergillus flavus* SWtS01 through random mutagenesis. *Microbiology Journal*. 6 (1): 25-33. DOI:10.3923/mj.2016.25.33.
- (13) Dada, E.O. and **Ekundayo, T.C. (2015)**. Prevalence of intestinal helminthiasis among selected undergraduate hostel students in the Federal University of Technology, Akure, Nigeria. *Int. J. Pure App. Biosci*. 3 (6): 65-69. ISSN: 2320 – 7051. DOI: <http://dx.doi.org/10.18782/2320-7051.2174>
- (14) **Ekundayo, T.C.** and Olaniyi, O.O. (2015). In vitro digestibility evaluation of rice bran meal incorporated with precipitate  $\beta$ -D-mannanase from *Penicillium italicum*. *Nigerian Journal of Microbiology*, 28 (1): 2760-2766.
- (15) Arotupin, D.J. and **Ekundayo, T.C. (2015)**. Comparative effects of yeasts sourced from different environments on organoleptic qualities of bread produced from air potato-cassava-wheat composite flour. *Research Journal of Microbiology*; 10 (7): 308-319. ISSN 1816-4935 / DOI: 10.3923/jm.2015.308.319
- (16) **Ekundayo, T.C.** and Arotupin, D.J. (2015). Effects of radiation and chemical mutagenesis on expression of aflatoxigenic traits in *Aspergillus parasiticus* SMS08-C. *Research Journal of Microbiology*, 10 (5): 205-213. ISSN 1816-4935 / DOI: 10.3923/jm.2015.205.213
- (17) **Ekundayo, T.C.** and Arotupin, D.J. (2015). Isolation and identification of cellulytic fungi from agrowastes and sawmill soils. *British Biotechnology Journal*, 7 (3): 147-159. Article no.BBJ.2015.055. ISSN: 2231–2927. DOI: 10.9734/BBJ/2015/17575.
- (18) Olaniyi, O.O.; **Ekundayo, T.C.**; Igbe, O.F. and Fagbohunge, Y.D. (2015). Influence of cultural and nutritional factors on beta-mannanase production by *Penicillium italicum* under submerged state fermentation. *British Microbiology Research Journal*. 5 (6): 481-489, Article no.BMRJ.2015.051.

- (19) Olaniyi, O.O., Igbe, F.O., **Ekundayo, T.C.** and Ayantola, K.J. (2013). Screening of bacterial strains for beta-mannanases production in solid state fermentation. *International Journal of Nature and Science*; 4 (2): 332-337.
- (20) Akinyele, B.J; Ekundayo, T.C. and Olaniyi, O.O. (2013). Parameters optimization of cellulose zymosynthesis by *Aspergillus flavus* NSPR017 grown on pretreated orange peels. *Nature and Science*.11(10):80-87.
- (21) Olaniyi, O.O.; Igbe, F.O. and **Ekundayo, T.C.** (2013). Optimization studies on mannanase production by *Trichosporonoides oedocephalis* in submerged state fermentation. *Journal of Biotechnology and Pharmaceutical Research*. 4 (7):110-116.
- (22) Olaniyi, O.O.; Igbe, F.O.; **Ekundayo, T.C.** and Ayantola, K.J. (2013). Screening of bacterial strains for beta-mannanases production in solid state fermentation. *Nature and Science*, 11 (5):134-140.

#### **Conferences Attended with Dates and / or Papers Presented**

- i. **EKUNDAYO, T. C.** and Okoh, A. I. (2019). Molecular characterisation and differential numerical delineation of computer-assisted analysis of DNA fingerprints of *Plesiomonas shigelloides* into strain clusters. 16th International Symposium "Horizons in Molecular Biology" held at the Max Planck Institute for Biophysical Chemistry, in Göttingen, Germany, 9 – 12 September 2019 (**Presenting Author**).
- ii. **EKUNDAYO, T. C.** and Okoh, A. I. (2019). Evidence of virulence traits in *Plesiomonas shigelloides* from classical experimentation and bioinformatics perspectives. First Nigerian Bioinformatics Conference, held at Nigerian Institute of Medical Research, Yaba Lagos, Nigeria, 23 – 26 June 2019. (**Presenting Author**).
- iii. **EKUNDAYO, T. C.** and Okoh, A. I. (2019). Evidence of virulence traits in *Plesiomonas shigelloides* from bioinformatics perspectives. 4th TYAN International Thematic Workshop and 1st African Symposium on Big Data, Analytics and Machine Intelligence for Financial, Health and Environmental Inclusion in Developing Countries, held at Federal University of Technology Akure, Nigeria, 10 – 14 June 2019. (**Presenting Author**).
- iv. **EKUNDAYO, T. C.** and Okoh, A. I. (2018). Plesiomonas-related research disproportionate with high prevalent rates in Africa presented at the South African Society for Microbiology conference held at Misty Hills Hotel and Conference Centre in Muldersdrift Johannesburg from 4 - 7 April 2018. (**Presenting Author**).
- v. Annual National Renewable and Sustainable Energy Postgraduate Symposium (REPS2016), held at the University of Fort Hare in Alice 4th – 6th September 2016.
- vi. University of Fort Hare Pre-Conference workshops and Centenary Conference, University of Fort Hare, Alice Campus, King William's Town Rd Alice, 5700 South Africa, 1st – 6th July.
- vii. Arotupin, D. J. and **Ekundayo, T. C.** (2015). Ultra violet radiation rebirth of *Aspergillus* species and *Penicillium italicum* for cellulase biosynthesis. The 4th Biennial International Conference and Exhibition on Environmental Issues (ICEI4) held at Centre for Atmospheric Research, National Space Research and Development Agency, Obasanjo Space Centre, Airport Road, Abuja, 17th - 20th April, 2016.
- viii. School of Sciences, Second Annual Conference held at The Federal University of Technology Akure (FUTA), 2014.

ix.

**34. Extra Curricula Activities**

**(a) Within the University:**

- (i) Post-graduate Class Governor, Department of Microbiology FUTA, M.Tech. Environmental Microbiology option, 2012-2015.
- (ii) Training, fundamentals of quantitative risk assessment, 01/09/2019
- (iii) Software training facilitator, Gelj and PAST software for microbial source-tracking, 21/10/2019.
- (iv) Training, Bibliometric and systematic analytic using R and r packages, Postgraduate students training, Department of Geography and Environmental Science, 26/11/2019.

**(b) Outside the University:**

- (i) Anglican Students' Fellowship, Federal University of Technology Akure, Church Mission Coordinator (2008 – 2009)
- (ii) Anglican Students' Fellowship, Federal University of Technology Akure, Prayer Coordinator (2010 – 2011)
- (iii) Anglican Students' Fellowship, Federal University of Technology Akure, Academic subgroup member (2006 – 2011).
- (iv) Reading and Surfing the internet.
- (v) Productive thinking and coding.

**35. Personal Skills**

- I am proficient in R programming, Quantum GIS, Python programming, Gretl; SmartPLS, STATA, ARCGIS, ORIGINLAB, GelJ, statistical package for social sciences (SPSS), PAST, Excel, PowerPoint, Microsoft Office, and other statistical packages applications of most of which could be seen in my publications; Proficient in English with excellent interpersonal relations, verbal, writing and communication skills; high motivation and task-oriented leadership, keen perception and strong analytical skills as well as Ability to engage students, teach, research and seminar discussion.

**36. Names and Addresses of three Referees:**

**Professor Anthony I Okoh (Director/ Dean of Research)**

SAMRC Microbial Water Quality Monitoring Centre, and Applied and Environmental Microbiology Research Group (AEMREG),  
Department of Biochemistry and Microbiology,  
University of Fort Hare, Private Bag X1314,  
Alice 5700, South Africa  
t: +2740 602 2365; c: +27822249760; f: +27866286824; aokoh@ufh.ac.za

**Professor V. O. Oyetayo**

Department of Microbiology,  
The Federal University of Technology, P. M. B. 704,  
Akure, Nigeria.  
t: +2348034278243; e: ovofuta@yahoo.com, ovonew67@gmail.com

**Dr. Orimoloye Israel. R.**

Centre for Environmental Management,  
University of the Free State, Private Bag 339,  
Bloemfontein,  
Republic of South Africa.  
t: +27732244901; e: orimoloyeIR@ufs.ac.za; orimoloyeisrael@gmail.com



**Dr. Akinyemi Babatope E.**

RNA: Sustainable Agriculture and Food Security,  
Agricultural Economics and Extension Department,  
University of Fort Hare

c: +27 (0) 787857843, e: bakinyemi@ufh.ac.za, e: akinyemitop@gmail.com,  
w: www.ufh.ac.za

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_