**AMUSA S. ADEBAYO**

224-619-6811 (C) *•* [*aadeba5@uic.edu*](mailto:aadeba5@uic.edu) *• 4 West Golf Road, Hoffman Estates, IL60169*

***PHARMACEUTICAL & IT SCIENTIST***

***Summary:***Very versatile, highly talented and resource-oriented scientist with over 20 years of teaching and research in pharmaceutical sciences. Highly experienced lecturer in basic and applied pharmaceutics, drug product formulation, compounding/pilot-scale manufacturing, Pharmaceutical Calculations, Biopharmaceutics and Pharmacokinetics, and Research design and project implementation. Recently advancing on healthcare data science track.

**EDUCATION**

* Obafemi Awolowo University, Nigeria – B. Pharm. 6/1989-Pharmacy
* Obafemi Awolowo University, Nigeria -M. Sc. 4/1995-Pharmaceutics
* Obafemi Awolowo University, Nigeria -MBA 6/1999-Master of Business Administration
* University of Ibadan, Nigeria-Ph. D. 8/2001-Pharmaceutics (Pharmaceutical Technology)
* University of Illinois, Chicago-05/2020-Health Informatics

***Software-IT***

MS office Suite (Share point, Excel, Words, Power Point, Outlook, One note). Design of Experiment (DoE), PK modeling & simulation software (Phoenix WinNonlin®, Gastroplus®), Statistical/Analytic apps (SPSS, Minitab, R, Relational Data Base), Expert System design (Exsys Corvid).

***Software-CLINICAL***

Framework LTC/Framework ECM

**PROFESSIONAL EXPERIENCE**

March 2020- To date IV Infusion Operations Technologist, MACRX Long Term care Pharmacy, 2307 S. Mount Prospect Road, Des Plaines, IL

**Job functions:** IV order entry using Framework LTC and Framework ECM applications., Aseptic Compounding in Compounding Aseptic Isolator; general Clean Room (ISO 7) operations, High-risk therapy compounding and therapeutic drug monitoring; inventory monitoring and control.

May 1996 – September 2002 University representative on consultancy services to the Jolliter Industries, Ltd., Lagos, Nigeria.

**Job functions:** Development of alcohol-free paracetamol pediatric oral liquid formulation (Registered as Jollidol®, Low-sugar pediatric chloroquine syrup formulation (Registered as Jollimal®, NAFDAC). Managed plant design, flow of process operations, water processing system qualification and approval, scale-up from trial batches of 12 L to 1000 L, manufacturing plant approval by Pharmacy Council and NAFDAC and product marketing authorization and licensure.

Sept. 1991 – Aug. 1992 \*Hospital Pharmacists, Obafemi Awolowo University Teaching Hospital, Ile-Ife, Nigeria (Supervisor: Mrs. M. A. Ayoola)

**Job functions:** Prescription review and dispensing, inventory management, compounding, drug use review, support ward round with physicians, nurses and other members of health team, patient cases and drug literature review seminars. I worked with the male surgical ward where I was in charge of emergency pack for surgical wards.

Sept. 1990 – Aug. 1991 Hospital Pharmacists, General Hospital, Batsari, Katsina State, Nigeria (Supervisor: Dr. K. Gorbadiya)

**Job functions**

* Prescription review and dispensing
* Inventory management placed orders and received drug and other products into the hospital store.
* Medication compounding
* Supported ward round with physicians, nurses and other members of health team, patient cases and drug literature review seminars.
* Worked with the obstetrics and gynaecology ward by preparing pharmacy emergency pack for the surgical wards.

Sept. 1989 – Aug. 1990 Hospital Pharmacist, Obafemi Awolowo Health Center; Obafemi Awolowo University, Ile-Ife, Nigeria (Supervisor: Mrs. F. Olayemi)

**Job functions**

* + - * + Conducted prescription review and dispensing
        + Performed special IV admixture preparation
        + Engaged in medication compounding
        + Participated in drug use review
        + Supported ward round with physicians, nurses and other members of health team I participated and presented in patient cases review and drug literature seminars
        + Worked with the physicians and nurses in diabetes and hypertension wards

**FACULTY EXPERIENCE**

July 2018 - Professor of Pharmaceutical Sciences, Sullivan University College of Pharmacy

July 2011 – June 2018 Associate Prof. of Biopharmaceutics & Pharmacokinetics, Roosevelt University, Schaumburg, IL 60173

Jan. 2010 – June 2011 Senior Lecturer in Pharmaceutics (Notched at Assoc. Prof. level), School of Pharmacy, University of the West Indies, St. Augustine, Trinidad & Tobago

Sept. 2008 – Jan 2010 Associate Professor of Pharmaceutics, University of Technology, Jamaica

Sept. 2002 – Aug. 2008 Lecturer in Pharmaceutics, *University of Technology, Jamaica*

*Kingston, Jamaica*

Sept. 1995 – Aug. 2001 Research Fellow I, Drug Research & Production Unit, Faculty of Pharmacy, Obafemi *Awolowo University, Ile-Ife, Nigeria*

Sept. 1997 – Aug. 2001 Associate Lecturer in Biostatistics, Department of Clinical Pharmacy and Pharmacy Administration, Faculty of Pharmacy, Obafemi Awolowo University, Ile-Ife, Nigeria

Sep. 1995 – Aug. 2001 Associate Lecturer in Pharmaceutics, Department of Pharmaceutics, Faculty of Pharmacy, Obafemi Awolowo University, Ile-Ife, Nigeria

Sept. 1992 – Aug. 1995 Research Fellow II, Drug Research & Production Unit, Faculty of Pharmacy, Obafemi *Awolowo University, Ile-Ife, Nigeria*

**ADMINISTRATIVE/LEADERSHIP EXPERIENCE**

2009 – 2010 Head, School of Pharmacy, College of Health Sciences, Univ. of Technology, Jamaica

2007 – 2009 Head, School of Pharmacy and Health Sciences, Faculty of Health & Applied Science, University of Technology, Jamaica

2006 – 2009 Member, Academic Misconduct Investigation Appeal Panel, University of Technology, Jamaica

2006 - 2009 Reviewer, Product registration dossiers and adviser to the Standards & Registration Division, Ministry of Health, Jamaica

2007 – 2009 Member, Education Committee of the Pharmaceutical Society of Jamaica

2006 – 2008 Chair, Faculty of Health & Applied Science Research Committee & Faculty Representative on the University Research Committee

2006 -2007Member, University’s Appointments & Promotions Steering Committee

2006 – 2007Member, Committee that reviewed the University Research Policy document, University of Technology, Jamaica

2005 – 2006 Member, 46th Anniversary Planning Committee

2005 – 2006 Member, Balanced-Scorecard Analysis and Septennial Review Committee

2005 – 2006 Chair, Faculty of Health & Applied Science Postgraduate Committee & Faculty Representative on the University Post Graduate Committee

1992 – 2002 Pharmacist-in-charge of Conventional Drug Manufacturing, OAU, Ife, Nigeria

2001 – 2002 Member, Science and Technology Park Development Committee, OAU, Ife, Nigeria

1995 – 2002 Faculty of Pharmacy Representative on the Board of Management of the Institute of Cultural Studies, OAU, Ife, Nigeria

1995 – 2002 Faculty Representative on the Board of Management of the Institute of Public Health, OAU, Ife, Nigeria

**RESEARCH AWARDS/GRANT**

2017 Combination Therapy with Targeted Agents to Augment Anticancer Effects - $12,500/cycle (Total $25,000.00) (Kurup, Tambe, Adebayo, Sakharkar, Majerczyk, Panakanti and Deb, renewable 2016 - 2018)

2016 Gastroplus from Simulations Plus, Inc., CA. $12,500.00 (ongoing support with research software, activated every 6 months.

2015 Niosome encapsulation and in vitro antibacterial effect of Clarithromycin and Levofloxacin (Intramural research grant for, $3000)

2010 Cost-benefit, safety and efficacy of using prefabricated adult drug products for obtaining child's dose of medication not available for children in Trinidad and Tobago (TT$84,000.00)

2008 Equipment Grant by Johnson and Johnson (Canada) Ltd. to the University of Technology, Jamaica (US$5million)

2008 Research Award for the Development of Ackee oil as Pharmaceutical Base, Univ. of Tech., Jamaica (J$500,000.00)

2007 PAHO Sponsorship to the PAHO/WHO Workshop on "Training in High Performance Liquid Chromatography (HPLC) and Dissolution Test in Quality Control of Antiretroviral Drugs"

Caribbean Regional Drug Testing Laboratory, Kingston, Jamaica

2006 IDRC Research Grant to Investigate Anti-competitive practices in Pharmaceuticals Distribution in Jamaica - Joint Award to UTech and Fair-Trading Commission, Jamaica by the IDRC, Canada 2006 (Ca$45,000.00)

2005 President's Research Initiative Award UTech, Jamaica (2005) (J$100,000 + plaque)

2005 CARIMED Ja. LIMITED Support/travel grant to the Particulate processes in the Pharmaceutical Industry Conference, Montreal, Canada, organized by the Engineering Conference International, Brooklyn, USA (June 26-30, 2005) (US$500.00)

2003 Research Development Award for the development of Polysaccharides from Breadfruit (Artocarpus sp). as Tablet ingredient, UTech, Jamaica, 2003 (J$ J$ 982,583.00)

**Intramural Grants for Undergraduate/Graduate Students Training in Research**

2014 Design and Evaluation of Dosage Form for the Circadian Rhythmic Delivery of Drugs,

NSF-STEP Summer 2014 ($500)

2014 Quality, Stability and Beyond-Use Dating of Compounded Atenolol, Enalapril & Hydrochlorothiazide Combination Antihypertensive Pediatric Product (Summer 2014, $2500)

2013 - Dose metformin tablet formulation for immediate / controlled release - contracted by

Roquette America Inc. ($5000)

2012 - Development of antiretroviral formulations for treating children with AIDS ($1200)

2012 - Design and Evaluation of Dosage Form for the Circadian Rhythmic Delivery of Drugs,

NIH Bridge project, Summer 2012, 2013 ($2400)

**Professional affiliations/Membership**

* Passed FPGE, undergoing certification by NABP
* Registered Pharmacist, Pharmacy Council of Nigeria, Lagos, Nigeria, since Sep. 1990
* Pharmaceutical Society of Nigeria, Lagos, Nigeria, since Nov. 1990
* International Pharmaceutical Federation (FIP, Reg. #26347), the Netherlands

Since Jan. 2005

* America Association of Colleges of Pharmacy (since 2011)
* America Association of Pharmaceutical Scientists (since 2012)
* International Academy of Compounding Pharmacists (since 2o14)

**Professional Services**

2004 – 2009 Annual Medical Outreach Program Coordinator, Association of Nigerians in Jamaica

2004 – 2007 Secretary, Association of Nigerians in Jamaica

2004 – 2009 Consultant to The Scientific Research Council, Jamaica in formulation research & product development

2005 – 2009 Technical Assessor, Jamaica National Accreditation (JAANAC) Committee of the Bureau of Standards, Jamaica

1996 – 2001 Consultant Pharmaceutical Formulation Development and Manufacturing Scientist to JOLLITERS INDUSTRY LIMITED, Lagos Nigeria

1999 – 2002 Secretary, Osun State Pharmacist's Multipurpose Co-operative Society, Osogbo, Osun State

1995 – 2001 Resource Person to the North American African Company (NAAFCO), Lagos Nigeria on Quality Assurance, proof-of-concept and application of new analytical equipment

**Editorial Services**

* AAPS PharmSciTech (Reviewer)\*
* AAPS Pharm Research (Reviewer)\*
* USP 34 - General Chapter (1118)
* E3 Journal of Biotechnology and Pharmaceutical Research (reviewer)
* Starch/Starke (Reviewer)
* The Caribbean Teaching Scholar (Editorial Board Member)
* Drug Development & Industrial Pharmacy (Reviewer)
* West Indian Medical Journal (Reviewer)
* West African Journal of Pharmacy (Reviewer)
* Journal of Pharmaceutical Technology & Drug Research (Reviewer)
* Scientific Journal International (SJI) (Editorial Board Member)

*\*Current/ongoing services*

**COMMUNITY OUTREACH/SERVICES**

* 2004 – 2009 Consultant to the Scientific Research Council, Jamaica in formulation research & product development
* 2004 – 2009 Annual Medical Outreach Program Coordinator, Association of Nigerians in Jamaica
* 2004 – 2007 Secretary, Association of Nigerians in Jamaica
* 2005 – 2009 Technical Assessor, Jamaica National Accreditation (JAANAC) Committee of the Bureau of Standards, Jamaica
* 1996 – 2001 **Consultant Pharmaceutical Formulation Development and Manufacturing Scientist** to JOLLITERS INDUSTRY LIMITED, Lagos Nigeria
* 1999 – 2002 **Secretary, Osun State Pharmacist's Multipurpose Co-operative Society,** Osogbo, Osun State
* 1995 – 2001 **Resource Person** to the North American African Company (NAAFCO), Lagos Nigeria on Quality Assurance, proof-of-concept and application of new analytical equipment

**Research FOCUS**

* Dosage form design, Bioavailability/Bioequivalence & Pharmacokinetic studies
* Application of Biopharmaceutics and Pharmacokinetics principles in rational therapy of pediatric & geriatric patient populations through simulations and kinetic modeling
* Development/modification of Pharmaceutical smart biomaterials for site-specific drug delivery, characterization of delivery and stability kinetics
* Application of smart biomaterials and pharmacokinetics principles in chronopharmaceutics of time-cyclic and physiologic cyclic conditions/disorders.

**Selected Peer-reviewed publications**

***Pharmaceutics/Biopharmaceutics***

1. **Harris, T. T.**, Adebayo, A. S., Bennett, D., Olugbuyi, O. Scott, C. (2018). European Journal of Clinical Pharmaceutics, 20 (4) Jul-Aug. 2018.

2. **Pryce, N.A**., Adebayo, A.S., Bennett, D.A. and Brown-Myrie, E. (2017). Design and evaluation of a new fixed-dose immediate release capsule of atenolol, enalapril maleate and hydrochlorothiazide. Journal of Pharmaceutical Research International 20(1): 1-16.

3. **Okunlola A**., Adebayo A.S., Adeyeye M. C. (2016). Development of repaglinide microspheres using novel acetylated starches of bitter and Chinese yams as polymers. International Journal of Biological Macromolecules (2017), 94, 544-553. http://dx.doi.org/10.1016/j.ijbiomac.2016.10.032

4. **Adebayo A. S**. and McFarlane N. (2014) Model-Based Bioequivalence assessment of a commercial Azithromycin Capsule against Pfizer Zithromax Tablet marketed in Jamaica. Journal of Applied Pharmaceutical Science, 4 (10), 062-068 http://www.japsonline.com

5. Jankie, S., **Adebayo, A. S**., Pillai, G. (2012) In Vitro Activities of Fluoroquinolones Entrapped in Non-ionic Surfactant Vesicles against Ciprofloxacin-Resistant Bacteria Strains Journal of Pharmaceutical Technology & Drug Research http://www.hoajonline.com/journals/jptdr/content/pdf/5.pdf

6. Anderson N., **Adebayo A. S,** Smith N. (2012) Physicochemical properties of Blighia sapida (Ackee) oil extract and its potential application as emulsion base, Afr. J. Pharm. and Pharmacol. 6(3): 200-210 (http://www.academicjournals.org/AJPP DOI: 10.5897/AJPP11.696)

7. **Riley C. K**. and Adebayo A. S. (2010) A comparative investigation of the packing and flow properties of sweet potato (Ipomoea batatas) starches and their potential use in solid dosage formulations Starch - Stärke, 62: 285-293.

8. **Adebayo, A. S**., Brown-Myrie, E and Itiola, O. A. (2008) Comparative disintegrant activities of breadfruit starch and official corn starch Powder Technology (USA), 181: 98 - 103

9. Riley, C. K., **Adebayo, A. S**., Wheatley, A. O. and Asemota, H. N. (2008) The interplay between yam (Dioscorea sp.) starch botanic source, micromeritics and functionality in paracetamol granules for reconstitution. European Journal of Pharmaceutics & Biopharmaceutics 70: 326 - 334

10. **Riley, C.K**., Adebayo, A. S., Wheatley, A. O. & Asemota. H. N. (2008) Surface properties of yam (Dioscorea sp.) starch powders and potential for use as binders and disintegrants in drug formulations. Powder Technology 185: 280 - 285

11. **Riley, C. K**., Adebayo, A. S., Wheatley, A. O. and Asemota, H. N. (2006) Fundamental and Derived Properties of Yam (Dioscorea Spp.) Starch Powders and Implications in Tablet and Capsule Formulation Starch/Starke (Germany) 58: 418-424.

12. **Adebayo, A. S**. and Akala, E. O. (2005) Kinetics model for the in vitro release of an hydrophilic drug (Amodiaquine) from fat-based Suppositories Journal of Arts, Science and Technology 2: 1 - 11.

13. **Babalola, C. P**., Adebayo, A. S., Omotosho, A. & Oyeyinka, A. (2004) Comparative bioavailability study of a new quinine suppository and oral quinine in healthy volunteers Tropical Journal of Pharmaceutical Research 3 (1): 291-297

14. **Adebayo, A. S**. and Itiola, O. A. (2003) Effects of Breadfruit and cocoyam Starch Mucilage Binders on Disintegration and Dissolution Behaviors of Paracetamol Tablet Formulations Pharmaceutical Technology (USA) (www.pharmtech.com), March: 78 - 90.

15. **Adebayo, A. S**. and Itiola, O. A. Compression behavior of breadfruit and cocoyam starches and the mechanical properties of their compacts. West African Journal of Pharmacy 16 (1): 42 - 50 (2002)

16. **Onyeji, C. O**., Adebayo, A. S. and Babalola, C. P. (1999) Effects of absorption enhancers in chloroquine suppository formulations I: In vitro release characteristics Euro. J. Pharm. Sc. (Europe) 9: 131-136

17. **Adebayo, A.S** and Itiola, O. A. (1998) Evaluation of Breadfruit and Cocoyam starches as Exo-disintegrant in a Paracetamol Tablet Formulation Pharm. Pharmacol. Commun. (London) 4: 385-389

***Material/Pharmaceutical Sciences***

1. Jankie S., Jenelle J., Pereira L. P., Akpaka P., Pillai G., Adebayo A. S. (2016) Determining the infective dose of Staphylococcus aureus (ATCC 29213) and Pseudomonas aeruginosa (ATCC 27853) when injected intraperitoneally in Sprague Dawley rats, British J. Pharm. Research 14(2): 1-9.

2. **Jankie S.**, Jenelle J., Lexley P. P., Adebayo A. S., Gopalakrishna P. (2016) Acute toxicity of sorbitan monostearate (span 60) non-ionic surfactant vesicles (niosomes) in Sprague Dawley rats, British J. Pharm. Res.14(1): 1-11, 2016.

3. **Okunlola A**, Adebayo AS and Adeyeye M.C. (2014) Solid State Characterization of Two Tropical Starches Modified by Pregelatinization and Acetylation: Potential as Excipients in Pharmaceutical Formulations. British Journal of Pharmaceutical Research, 5 (1): 2231-2919

4. Abayomi M., **Adebayo A. S**., Bennett D. A., Porter R., Shelly-Campbell J. and Dawkin G. (2014) Phytochemical Testing and In vitro Antibacterial Activity of Bixa orellana (Annatto) Seed Extract. British Journal of Pharmaceutical Research 4(11): 1387-1399

5. **Abayomi, M**., Adebayo, A. S., Bennett, D., (2013) In vitro antioxidant activity of Bixa orellana (Annatto) Seed Extract" Journal of Applied Pharmaceutical Science, 4(02): 101 - 106

6. Harvey A. C., **Adebayo A. S**., Wheatley A. O, Asemota H. N., Riley C. K. (2012) Effects of Acetylation on the Micromeritics of Yam (Dioscorea sp.) Starch Powder for Pharmaceutical Application West African Journal of Pharmacy (2012) 23 (2) 40 - 50

7. **Adesina, S. K.**, Adebayo, A. S, Adesina, S. K. O., and Groning, R. (2003) New constituents of Piper guineense fruit and leaf Die Pharmazie (The Netherlands) 58: 423 - 425.

8. **Adesina, S. K**., Adebayo, A. S, Adesina, S. K. O., and Groning, R (2002) GC/MS Investigations of the minor constituents of Piper guineense stem. Die Pharmazie (The Netherlands) 57: 622 - 627

9**. Adebayo, A. S**., Gbadamosi, I. A., Adewunmi, C. O. and Adesina, S. K. (2001) Influence of Herbal Materials on Soap Foaming and Organolepsis Nig. J. Nat. Prod. & Med. 05: 41 - 44

10. **Adebayo, A. S**. and Itiola, O. A. (1998) Properties of Starches obtained from Colocasia esculenta and Artocarpus communis Nig. J. Nat. Prod. & Med. (Nigeria) 02: 29-33

***Pharmacy Practice***

**Gossel-Williams, M**. & Adebayo, A. S. (2008) The "PharmWatch" Programme: Challenges to engaging the Community Pharmacists in Jamaica Pharm. Practice. Oct-Dec 6 (4): 187 - 190

***Book Chapter***

**Moji C. Adeyeye** and Amusa Adebayo (2018). Hard Shell Capsules in Clinical Trials. In Larry L. Augsburger & Stephen W. Hoag (Eds.). Pharmaceutical Dosage Forms: Capsules. ISBN: 9781351620390

*\*Corresponding author is highlighted in bold.*