CURRICULUM VITAE

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EDUCATIONAL BACKGROUND:

B.Pharm. (Honors) 1980, University of Ife (Now Obafemi Awolowo University), Ile-Ife, Nigeria. Dissertation title: Modes of Action of Some Peptide Antibiotics.
Advisor: E. O. Ogunlana, Ph.D. (Professor).

M.Sc. Pharmaceutics, 1983, University of Ife, Ile-Ife, Nigeria. Thesis title: Assessment of Cassava Starch Binder on Granules and Tablets.
Advisor: R.N. Nasipuri, Ph.D. (Professor)

Ph.D. Pharmaceutics, 1986, The University of Manchester, England.
Thesis title: Studies on Photopolymerized PolyHEMA Hydrogels for Drug Delivery.
Advisor: J.H. Collett, Ph.D., D.Sc. (Professor).

DAAD Fellow, 1993: Institute of Biopharmaceutics and Pharmaceutical Technology, University of Muenster, The Federal Republic of Germany.
Projects: (1) Pulsatile drug delivery system using electrical energy and remote control with the aid of computer. (2) Studies on the characteristics of some rectal absorption enhancers using three-dimensional solubility parameters (application of regular solution theory to transepithelial transport of drugs).
Advisor & Collaborator: R. Groning, Ph.D. (Professor).

Fellow, National Institutes of Health Fogarty International Center, USA and Research Associate, Department of Pharmaceutics and Pharmaceutical Chemistry/ Center for Controlled Chemical Delivery, and Department of Bioengineering, University of Utah, USA (1994 - 1996)
Project: Biodegradable hydrogels with controllable kinetics of swelling for colon-specific oral peptides/proteins delivery.

Advisor & Collaborator: Jindrich Kopecek, Ph.D., D.Sc. (Distinguished Professor of Pharmaceutics & Pharmaceutical Chemistry and Distinguished Professor of Bioengineering, University of Utah).

National Association of Boards of Pharmacy Foreign Graduate Examination (USA) December 3, 1995

Research Associate, Departments of Pharmaceutics & Pharmaceutical Chemistry and Bioengineering, University of Utah (1996 - 1997).

Registered Pharmacist (Nigeria: 1982)

Registered Pharmacist (Utah: November, 1997)

Registered Pharmacist (Maryland: March, 1998)

Registered Pharmacist (Washington, D.C.: August, 1998)

Certificate of Pharmaceutical Compounding at the Pharmaceutical Compounding Centers of America, Houston, TX (May, 2007)

Ordained as a Deacon in the Redeemed Christian Church of God, 2008

Immunization Pharmacist (USA: June, 2010)

Diploma in Quality by Design (QbD) in Pharmaceutical Development, Copenhagen University, Denmark (August, 2014)

Certificate in Entrepreneurship Course at Washington D.C. Small Business Development Center, Howard University School of Business (2014)

Certificate in Multivariate Data Analysis (Principal Component Analysis and Projection to Latent Structures (PLS-Method)), MKS Umetrics, September 2015.

Certificate in QBD Using Design of Experiments (Empirical models as tools, screening with factorial, fractional factorial and Placket-Burman designs,

optimization with response surface methodology, sensitivity analysis, design spacer and risk estimation) in Basel Switzerland, MKS Umetrics, June 2016.

PROFESSIONAL EXPERIENCES:

July 1, 2011 to Date: Professor of Pharmaceutics, Department of Pharmaceutical Sciences, College of Pharmacy, and Graduate Professor, Graduate School of Arts & Sciences, Howard University, Washington, D.C. Co-PI and Director, Center for Drug Research and Development, College of Pharmacy, Howard University. Director, Laboratory for Nanomedicine, Drug Delivery, and Pharmaceutical & Biopharmaceutical Drug Products Design and Development, College of Pharmacy, Howard University. Responsibilities include instruction of Pharm. D. professional students and Ph.D. graduate students, development of research programs and seeking research grants to support the research, public service, and publication in refereed journals. Other responsibilities include participation in the College, University, National and International Committees/Activities

July 1, 2015 to Date: Appointed a member of a USP (United States Pharmacopeia) Expert Committee (the General Chapters-Dosage Forms USP's Expert Committee). USP Expert Committees are responsible for developing and revising USP standards that comprise its compendia: the USP and the NF, USP Compounding Compendium, Herbal Medicines Compendium, Dietary Supplements Compendium, and Food Chemicals Codex.

April 15 2015 to Date: Chair of Howard University Institutional Animal Care and Use Committee (IACUC). Appointed by The President of Howard University (President Wayne A. I. Frederick). IACUC provides oversight to animal care and use program (protects the welfare of animals used in teaching and research conducted under auspices of Howard University) and ensures compliance with institutional policies and federal regulations.

October 3, 2013 to Date: Member of the Advisory Group of the Center for Pharmaceutical Advancement and Training of the United States Pharmacopeia (Appointed by Dr. Roger L. Williams (CEO of USP & Chair, Council of Experts, United States Pharmacopeia)).

April 2013: Awarded Howard University Pharmacy Alumni Association "2013 Distinguished Faculty of the Year".

July 1, 2003 - to July 1, 2011: Associate Professor, Department of Pharmaceutical Sciences, College of Pharmacy and Graduate Associate Professor, Graduate School of Arts & Sciences, Howard University, Washington, D.C. Co-PI and Director: Center for Drug Research and Development, School of Pharmacy, Howard University.

December 1, 1997 – June 30, 2003: Assistant Professor, Department of Pharmaceutical Sciences, College of Pharmacy and Graduate Assistant Professor, Graduate School of Arts & Sciences, Howard University, Washington, D.C.

October 1, 1994 - November 30, 1997: Fellow, National Institutes of Health Fogarty International Center, Bethesda, Maryland and Research Associate, Department of Pharmaceutics and Pharmaceutical Chemistry/Center for Controlled Chemical Delivery, and Department of Bioengineering, University of Utah, USA. Project advisor: Professor Jindrich Kopecek. Project: "Biodegradable hydrogels with controllable kinetics of swelling for colon-specific oral peptides/proteins delivery"

1995-1996: Pharmacy Intern at Smith Pharmacy and The University of Utah Hospital in Salt Lake City, Utah (1, 500 hours required to be licensed as a Pharmacist in the State of Utah).

1993: DAAD Fellow, Institute of Biopharmaceutics and Pharmaceutical Technology, University of Muenster, Germany. Project advisor and collaborator: Professor R. Groning. Projects: (1) Pulsatile drug delivery system using electrical energy and remote control with the aid of computer. (2) Studies on the characteristics of some rectal absorption enhancers using three-dimensional solubility parameters (application of regular solution theory to transepithelial transport of drugs).

1986-1994: Lecturer one and then Senior lecturer in Pharmaceutics, University of Ife (Now Obafemi Awolowo University), Ile-Ife, Nigeria. Teaching at undergraduate (B.Pharm.) and postgraduate (M.Sc. and Ph.D.) levels. Research activities: Formulation of amodiaquine and chloroquine

suppositories; evaluation of corn chaff as tabletting excipients; applications of iontophoresis technique in drug therapy; integrated computer optimization technique for use in the formulation and development of pharmaceutical dosage forms; application of regular solution theory to transepithelial transport of drugs.

1986-1994: Member of BIOS Pharmaceutical Industry Consultant Group, Faculty of Pharmacy, University of Ife.

1983-1986: Commonwealth Scholar and Ph.D. student, University of Manchester, England. Project: Studies on Photopolymerized PolyHEMA Hydrogels for Drug Delivery.

1980-1983: Graduate Assistant and then Assistant Lecturer in Pharmaceutics, Department of Pharmaceutics, Faculty of Pharmacy, Obafemi Awolowo University, Ile-Ife, Nigeria. Research activities: Evaluation of the influence of cassava starch mucilage binder on granules and tablet properties (M.Sc.). Teaching responsibilities: Compounding laboratories (first, second and third year professional pharmacy students).

1981-1982: National Youth Service Corps Pharmacist, St. Joseph's Hospital, Adazi, Nigeria.

1980-1981: Internship Program at the University Teaching Hospital, University of Ife, leading to registration as a Pharmacist in 1982.

HONORS AND AWARDS

Commonwealth Scholar, University of Manchester, England, 1983- 1986.

The Third World Academy of Sciences Research Grant No BC 89-25 for a project entitled "Integrated Computer Optimization System for Use in the Formulation and Development of Pharmaceutical Dosage Forms", 1990.

May and Baker Traveling Fellowship, 1990.

Pfizer Traveling Fellowship - Awarded in 1990 but utilized in 1991

National Secretary of the Nigerian Association of Academic Pharmacists (1987-1990).

Chairman, Pharmaceutical Society of Nigeria, Osun State Branch (1991-1992)

DAAD Fellowship at the Institute of Biopharmaceutics and Pharmaceutical Technology, University of Muenster, The Federal Republic of Germany, 1993.

External Examiner to the Department of Pharmaceutics and Industrial Pharmacy, University of Ibadan, Nigeria (1992-1994).
Member of Senate, Obafemi Awolowo University, Ile-Ife, Nigeria (1992-1994).

Fellow, National Institutes of Health Fogarty International Center, USA (1994-1996).

Rho Chi Honor Society (2000).

Traveling Award to Attend Writing Winning Grant by the Federations of American Societies for Experimental Biology, June 2001.

Distinguished Faculty Author, President and Provost, Howard University: 1999-2000; 2000-2001; 2001-2002; 2002-2003; 2004-2005; 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010 (Discontinued).

Recognition and Award by Howard University under Presidential Merit Superior Performance Awards: 2000, 2001, 2002, 2003, 2004, 2006; 2007, 2008, 2009 (Discontinued).

2013: Awarded Howard University Pharmacy Alumni Association "2013 Distinguished Faculty of the Year".

Eligible for New Continuous Submission Throughout my Tenure as NIH Grant Reviewer (July 1, 2010) on the Basis of my substantial service to peer review at the National Institutes of Health, I have the opportunity to submit certain grant applications at any time.

2013 Top Reviewer Award by the Journal of Pharmaceutical Sciences (*JPharmSci)*.

2013 Top Reviewer Award by the Journal of Nanomedicine: Nanotechnology, Biology, and Medicine

2014 American Association for Cancer Research (AACR) Minority-Serving Institution Faculty Scholar in Cancer Research Award. Presented a Paper in Orlando, FL (Dec. 1-4, 2014).

2015 Submission Waiver Fees Award by the Journal of Nanomedicine: Nanotechnology, Biology, and Medicine (We are delighted to let you know that submission fees are now waived for you, because you have completed more than 15 reviews for the journal in recent years: Editor-in-Chief, Lajos P. Balogh, PhD)

NIH GRANT PROPOSAL STUDY SECTIONS AND GRANT REVIEWER ACTIVITIES TO OTHER AGENCIES

(a) Consultant to National Institutes of Health, Center for Scientific Review: Special Emphasis Panel (ZRG1 SSS-O 12 B, Small Business Cardiovascular and Pharmacology). SRA: Dr. C. Ganguly (March 6-7, 2003).
(b) Consultant to National Institutes of Health, Center for Scientific Review: Special Emphasis Panel for Small Business Innovation Research (SBIR) and Technological Transfer (STTR) Grants (SBIR/STTR ZRG1-HP, Hematopoiesis Study Section). SRA: Dr. Robert Su (June 2003)
(c) Consultant to National Institutes of Health, Center for Scientific Review: Biomedical Research Review Subcommittee 2004/01 Council AA-1 (National Institute on Alcohol Abuse and Alcoholism Initial Review Group (10/20/2003)). SRA: Sathaisiva Kandasamy, Ph.D.
(d) Consultant to National Institutes of Health, Center for Scientific Review: Cardiovascular Sciences Special Emphasis Panel (ZRG1 SSS-O 11 B) Small Business Cardiovascular and Pharmacology). SRA: Dr. Robert Su (November 17, 2003).
(e) NIH/NIDA RFP N43DA-4-7741 (Nanoscience-Based Design of Therapies for Substance Abuse Treatment), January 28, 2004. Dr. Richard Harrison, Chief, Contracts Review Branch, Office of Extramural Affairs, NIDA.

(f) Cardiovascular Science Small Business Activity (Special Emphasis Scientific Review Group: ZRG1 CVS-H 10 B, ZRG1 CVS SBIR, March 18-19, 2004). Delia Tang, MD (Scientific Review Administrator)
(g) N44DA-5-7741 (Topic 064) (Oral Buprenorphine Nanoparticle Formulation – Phase II SBIR –Topic 064 Contract Proposal): HHS Procurement N44DA-5-7741 (Topic 064). May 11, 2005). Dr. Eric Zatman (Contract Review Administrator, National Institute on Drug Abuse)
(h) Hematology Small Business (SBIR/STTR) Special Emphasis Panel Scientific Review Group: ZRG1 Heme-D 10 B, July 15, 2005. Delia Tang, MD (Scientific Review Administrator)
(i) Reviewer to Fund for Academic Excellence Grant Program, Provost Office, Howard University. Ten proposals were reviewed in 2005 for the Eleventh Cycle (Fall 2004-Spring 2005)
(j) Xenobiotic Disposition and Action (XNDA) Study Section: Digestive Sciences Integrated Review Group (June 7-8, 2006). Patricia Greenwel, Ph.D. (Scientific Review Administrator)
(k) Technology Development Special Emphasis Panel (ZRG1 F14A 20L. June 29-30, 2006 .
(l) The Pharmaceutical & Chemical Resources for AIDS Drug Development Contract Review (Microbiology Clinical Review Branch Scientific Review Program DEA, NIAID, NIH, DHHS (NIH (ZRG)/NIAID/DEA October 2 and 3, 2006). Darren D. Sledjeski, Ph.D. (Scientific Review Administrator).
(m) 2009/05 ZGM1 MBRS-X (CH) MBRS SCORE Applications
(n) New Jersey Department of Health & Senior Services Cancer Research Funding Initiative, New Jersey Cancer Development Awards (NJDRDA), January 2009
(o) RFA OD-09-003 Challenge Grants Panel 4 (2009/10 ZRG1 BST-M (58) R (June 2009)
(p) NIH Center for Cancer Nanotechnology Excellence (CCNEs) (U54) Special Emphasis Review Panel ZCA1 GRB-S M1 R (February 24 to 26, 2010) (Michael B. Small, Ph.D., Scientific Review Officer).
(q) 2010 Prostate Cancer Research Program - Prostate Cancer Training Award (Scientist Reviewer: Department of Defense (DoD) Congressionally Directed Medical Research Programs) July 28-30, 2010 (Barbara M. Mueller, PhD, Scientific Review Officer).
(r) NIH SBIR Topic 301 (N43 & N44): Nanotechnology Sensing Platforms for Improved Diagnosis of Cancer, March 2, 2011 (Savvas C. Makrides, Ph.D., Scientific Review Officer).

(s) 2011 Prostate Cancer Research Program - Prostate Cancer Training Award (Scientist Reviewer: Department of Defense (DoD) Congressionally Directed Medical Research Programs) August 1-3, 2011 (Victoria Kane, Ph.D., Scientific Review Officer).
(t) Department of Defense (DoD) 2012 Prostate Cancer Research Program (Pre-application-Clinical and Experimental Therapeutics-2) MAY 7th, 2012, Barbara J. Silver, Ph.D., Scientific Review Officer, Global Health Sector, SRA International, Inc.
(u) Department of Defense (DoD) FY 2012 Prostate Cancer Research Program Training Awards: PTRA, PTA and STPA, August 28-30, 2012. Moira Hitchens, Ph.D., Scientific Review Officer, SRA International, Inc. (Health Group)
(v) NIH/NCI April 12th 2012 SBIR Contract Review (SBIR Topic 300 Review). Jeffrey E. DeClue, Ph.D., Scientific Review Officer NIH/NCI/DEA/SRLB
(w) NIH/NCI PAR-10-286: Cancer Diagnostic and Therapeutic Agents Enabled by Nanotechnology (SBIR [U43/U44]) July 11 to July 12, 2012. Savvas C. Makrides, Ph.D., Scientific Review Officer, NIH/NCI Special Review and Logistics Branch.
(x) DoD 2013 Prostate Cancer Research Program: Training-Clinical and Experimental Therapeutics, September 2013 (Peyman Khalichi, Ph.D., Scientific Review Manager; Melissa J. Betts, Project Manager).
(y) NIH Center for Scientific Review Special Emphasis Panel: Image-Guided Drug Delivery In Cancer (ZRG1 SBIB-Z (58)), October 2013 (Scientific Review Officer: Mohseni, Mehrdad, MD)
(z) NIH/NIGMS Support of Competitive Research (SCORE) ZGM1 TWD-3 (SC), February 2014 (Scientific Review Officer: Sidorova, Nina, PhD).
(a.1) NIH Professional Development Workshop on June 8-9, 2015 and Participation as a Mock Reviewer (Scientific Review Administrator: Robert Freund, Ph.D. Chief, AIDS and AIDS Related Research (AARR) Integrated Review Group, Center for Scientific Review, National Institutes of Health)
(a.2) Special Emphasis Panel (SEP) to Review Support of Competitive Research (SCORE) Program Applications (ZGM1 RCB-3 (SC): Nov. 18, 2015) (Nina Y. Sidorova, PhD, Scientific Review Officer).
(a.3). NIGMS Review of SCORE Grant Applications ZGM1 RCB-3 (SC), November 2015
(a.4). EXITO Pilot Project Grant Program (follows format of NIH R03): Oregon Portland State University 2016

(a.5). National Cancer Institute (NCI) Center to Reduce Cancer Health Disparities (CRCHD), 2015 Mock Review Session (as a part of 2015 Professional Development Workshop) at NCI, (Shady Grove) in Rockville, Maryland

REVIEWER OF SCIENTIFIC JOURNALS

(a). Reviewer to the International Journal of Pharmaceutical Compounding, Edmond, Oklahoma, "*In Vitro* studies on the release of morphine sulfate from compounded extended-release morphine sulfate capsules" Lloyd V. Allen, Jr., Ph.D., R.Ph. (Editor – in- Chief).

(b) Reviewer to AAPS Pharm. Sci. (an electronic journal), "Determination of polyvinyl alcohol in a poly(DL-lactide-co-glycolide) matrix by size exclusion chromatography" Robert, Langer, D. Sc. Germeshausen Professor of Chemical and Biomedical Engineering, School of Engineering, MIT (Editor).

(c) Reviewer to Biomaterials, "Controlled release of cyclosporine from VP HEMA copolymer systems of adjustable resorption monitored by MEKC" Nicholas, A. Peppas, D.Sc. Showalter Distinguished Professor of Chemical Engineering, School of Chemical Engineering, Purdue University (Editor, USA).

(d) Reviewer to Journal of Biomedical Material Research, Ms # E-127 "Self-curing acrylic formulations containing PMMA/PCL composites: properties and antibiotic release behavior". James M. Anderson, M.D., Ph.D. University Hospitals of Cleveland, The Institute of Pathology of Case Western Reserve University, Cleveland (Editor in Chief).

(d) Reviewer to International Journal of Pharmaceutics, "Colon-specific drug delivery: new approaches and in vitro/in vivo evaluation". Howard Rytting, Ph.D. Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).

(e) Reviewer to Biomaterials "eBioM-1103: Synthesis and biological properties of antitumor-active conjugates of ADR with dextran". Professor David Williams, University of Liverpool, United Kingdom (Editor-in-Chief of Biomaterials).

(f) Reviewer to International Journal of Pharmaceutics, "Tumor Targeted Delivery of Tamoxifen (KU-1851)". J. H. Rytting, Ph.D. Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).

(g) Reviewer to International Journal of Pharmaceutics, "In vitro and in vivo

release of naltrexone from biodegradable depot systems (KU-1903)". J. H. Rytting, Ph.D. Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).
(h) Reviewer to International Journal of Pharmaceutics, "Fluid Bed Drying of Guarana (Paullina Cupana HBK) Extract: Response Surface Analysis on Process Variables)". J. H. Rytting, Ph.D. Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).
(i) Reviewer to AAPS Pharm. Sci. (an electronic journal). A pdgf-BB photocrosslinkable poly(vinyl alcohol) hydrogels release vehicle for wound healing applications", Wolfang Sadeee, Ph.D. (Editor in-Chief).
(j) Reviewer to International Journal of Pharmaceutics, "Bioavailability Assessment of Salbutamol Sulfate Suppositories in Human Volunteers". J. H. Rytting, Ph.D. Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).
(k) Reviewer to the International Journal of Pharmaceutical Compounding: "Chemical Stability of Phenylephrine Hydrochloride after Reconstitution in 0.9 % Sodium Chloride Injection for Infusion", Lloyd V. Allen, Jr., Ph.D., R.Ph. (Editor – in- Chief).
(l) Reviewer to Biomacromolecules: "Water-soluble and Nonionic Polyphosphoester: Synthesis, Degradation, Biocompatibility and Enhancement of Gene Expression in Mouse" David L. Kaplan (Editor), Biotechnology Center, Department of Chemical Engineering, Tufts University, MA, USA.
(m) Reviewer to the Journal of Drug Targeting.: "Polyacetal diethylstilboestrol: a polymeric drug designed for pH-triggered activation". Ijeoma F. Uchegbu (Editor, Targeting Special Polymer Edition JDT/04, Department of Pharmaceutical Sciences, University of Strathclyde Glasgow).
(n) Reviewer to Biomacromolecules Journal: "Ternary Complexes Comprising Polyphosphoramidate Gene Carriers". Prof. Ann-Christine Albertsson (Editor). Department of Fiber and Polymer Technology Teknikringen 58 Royal Institute of Technology (KTH) S-100 44 Stockholm, Sweden.
(o) Reviewer to Biomacromolecules Journal.: " PAMAM Dendrimers with a Trimesyl Core as Gene Carriers". Prof. Ann-Christine Albertsson (Editor). Department of Fiber and Polymer Technology, Teknikringen 58 Royal Institute of Technology (KTH) S-100 44 Stockholm, Sweden
(p) Reviewer to the Journal of Bioactive and Biocompatible Polymer: "Liver Targeting Dendritic MRI Contrast Agents Containing Pyridoxamine".

Professor Raphael M. Ottenbrite, Department of Chemistry, Virginia Commonwealth University, Richmond, VA 23284-2006 USA.
(q) Reviewer to International Journal of Pharmaceutics.: " Pharmacokinetics and biodistribution of RGD-targeted doxorubicin-loaded nanoparticles in tumor-bearing mice". J. H. Rytting, Ph.D. Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).
(r) Reviewed a chapter (Paclitaxel delivery from novel polyphosphoesters: from concept to clinical trials) to be published in the American Chemical Society (ACS) Symposium Series Book "Polymeric Drug Delivery: Science & Application". Sonke Svenson, Ph.D. (Editor) Dendritic NanoTechnologies, Inc.2625, Denison Drive Mt. Pleasant, MI 48858
(s) Reviewer to International Journal of Pharmaceutics: "Evaluation of Nanoparticles Loaded with Benzopsoralen A in Rat Peritoneal Exudate Cells". Howard Rytting, Ph.D., Department of Pharmaceutical Chemistry, University of Kansas, Lawrence, KS (Editor, USA).
(t) Reviewer to Medical Principles and Practice, The International Journal of the Kuwait Health Sciences Center: "Manuscript # 1340/5/2005: Determination of Simvastatin in Human Plasma by HPLC-UV". Editor: Azu Owunwamnne, Faculty of Medicine, Kuwait University.
(u) Reviewer to Biomacromolecules Journal: "Synthesis and Crosslinking Characteristics of Oligomeric Unsaturated Phosphosester Used as a Potential Injectable Bone Repair Material". Prof. Ann Christine Albertsson (Editor). Department of Fiber and Polymer Technology Teknikringen 58 Royal Institute of Technology (KTH) S-100 44 Stockholm, Sweden.
(v) Reviewer to Journal of Controlled Release: Ms. Ref. No.: JCR-D-05 00135 " In vitro Release of the mTOR Inhibitor Rapamycin from Poly(ethylene glycol)-b-Poly(<epsilon> caprolactone) Micelles". Professor Kinam Park (Editor-in-Chief, School of Pharmacy, University of Wisconsin).
(w) Journal: Biomacromolecules, Manuscript ID : bm-2010-00801k "Bioactive Polymeric Systems with Platelet Anti-Aggregating Activity for the Coating of Vascular Devices" Dr. Simona Percec, Associate Editor; Christi Battiato, Editorial Assistant. Email: percec-office@biomac.acs.org
(x) American Institute of Chemical Engineers (AIChE) Journal: "Equilibrium and Kinetics of Vancomycin Adsorption on Polymeric Adsorbent" (Professor Nicholas A. Peppas, Associate Editor September 2010).
(y) Molecular Pharmaceutics: "Cholesterol-dependent macropinocytosis and endosomal escape control the transfection efficiency of lipoplexes in CHO living cells", Nov, 2011. Gordon L. Amidon, Ph.D. (Editor in Chief)

(z) Molecular Pharmaceutics: "Folic acid-Functionalized Nanoparticles for Enhanced Oral Delivery", Oct. 21, 2011. Gordon L. Amidon, Ph.D,. (Editor in Chief)

(aa) Nanomedicine: Nanotechnology, Biology and Medicine: "Novel self-nanoemulsifying drug delivery systems (SNEDDS) for oral delivery of cinnarizine: design, optimization and in-vitro assessment". January 2012 (Editor-in-Chief: Lajos P. Balogh, PhD)

(ab). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2012353 Title: "K-ras Oncogene Silencing Strategy Combined with Arsenic Nanoparticles for Pancreatic Cancer Treatment", 2012 (Editor-in-Chief: Lajos P. Balogh, PhD).

(ac). Journal of Pharmaceutical Sciences: "A novel temperature modulated solidification technique to prepare solid lipid nanoparticles: preparation, characterization, and evaluation using 5-Fluoro Uracil" 2013.

(ad). Journal of Pharmaceutical Sciences: "An evaluation of polycaprolactone matrices for vaginal delivery of the antiviral, Tenofovir, in preventing heterosexual transmission of HIV", 2013.

(ae). Clinical Therapeutics: Manuscript Number: CLINTHER-D-13-00036 Title: "Enzymatic Debridement of Diabetic Foot Ulcers Using Collagenase is Clinically Effective with Improved Health Economics: Results from a Randomized Controlled Study" (Clinical Trial Registration Number: NCT01056198, Clinicaltrials.gov.), 2013.

(af). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2013275. Title: "Multicomponent Peptide Nanocomplex for Targeted Delivery of siRNA", 2013

(ag). Journal of Pharmaceutical Sciences: "Release of Tenofovir from Carrageenan-based Vaginal Suppositories", 2013.

(ah). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2013301. Title: "Actinobacteria mediated biosynthesis of nanoparticles — a review", 2013

(ai). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2013334. Title: "Epigenetics targeted protein-vorinostat nanomedicine inducing apoptosis in heterogeneous population of primary acute myeloid leukemia cells including refractory and relapsed cases", 2013 (B. Mark Evers, MD Associate Editor)

(aj). Journal of Pharmaceutical Sciences: "Thermo-sensitive injectable hydrogel enhances the antitumor effect of embelin in mouse hepatocellular carcinoma", 2013

(ak). Nanomedicine: Nanotechnology, Biology, and Medicine: Ms. Ref. No.: JN2013445 Title: "Assessment of ofloxacin and sparfloxacin with silver nanoparticles synthesized from Penicillium madriti (MTCC2804) on MDR pathogens", 2013 (Raj Bawa, PhD Associate Editor)
(al). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN201420. Title: "Bypassing the EPR Effect Confers Better Tumor Control of Nanomedicine", 2014.
(am). International Journal of Pharmaceutics: "Gold nanoparticles prepared by laser ablation in aqueous biocompatible solutions: assessment of safety and biological identity for nanomedicine applications", 2014.
(an). Journal of Pharmaceutical Sciences: "Erodible time-dependent colon delivery systems with improved efficiency in delaying the onset of drug release", 2014.
(ao). American Chemical Society (ACS) Applied Materials & Interfaces: "pH-sensitive nanoparticles of paclitaxel-conjugated poly(styrene-co- maleic acid) for anticancer drug delivery in solid tumor of syngeneic mice", 2015.
(ap). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2015102. Title: "Biofunctionalization of scaffold material with nano-scaled diamond particles physisorbed with angiogenic factors enhances vessel growth after implantation", 2015
(aq). Clinical Therapeutics: Manuscript Number: CLINTHER-D-15-00090
Title: "Pediatric Obesity: Pharmacokinetics and Implications for Drug Dosing", 2015
(ar). International Journal of Pharmaceutics: Manuscript Number: IJP-D-15-00651. Title: "*Ex vivo* skin permeation and retention studies on chitosan-ibuprofen-gellan ternary nanogel prepared by in situ ionic gelation technique - a tool for controlled transdermal delivery of ibuprofen", 2015
(as). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2015385. Title: "Gulp1 Is Associated with the Pharmacokinetics of PEGylated Liposomal Doxorubicin (PLD) in Inbred Mouse Strains", 2015
(at). Nanomedicine: Nanotechnology, Biology, and Medicine: Manuscript Number: JN2015626. Title: "Shortfalls in selection process of nanodelivery systems for multidrug resistant cancer and the way forward", 2015
(au). Clinical Therapeutics: Ms. Ref. No.: CLINTHER-D-15-00378 ": Physicians' perception of teratogenic risk and confidence in prescribing drugs in pregnancy - influence of Norwegian drug information centers Clinical Therapeutics" Alyson J McGregor, MD. (Topic Editor), December 2015.

(av). Nanomedicine: Nanotechnology, Biology, and Medicine: Ms. Ref. No.: JN2015716 Title: "Nanoformulated Mesoporous Hollow-PCL capsules Prevent Malaria: a 'temperature clock' to suppress the activities of P. falciparum" (Raj Bawa, PhD., Special Associate Editor), December 2015.
(aw). Design and optimization of thermosensitive PLGA-PEG-PLGA hydrogels containing BMP-2 for bone regeneration applications. Journal of Pharmaceutical Sciences, 2016
(ax). Development of PEGylated cysteine-modified lysine dendrimers with multiple reduced thiols for prevention of hepatic ischemia/reperfusion injury. Molecular Pharmaceutics, 2016
(ay). Factors Influencing the Fabrication of 6 Albumin-Bound Drug Nanoparticles (ABDns): Part II. Journal of Microencapsulation 2016
(az).Hyaluronic Acid-Based Biocompatible Supramolecular Assembly for Sustained Release of Antiretroviral Drug. J. Pharmaceutical Sciences, 2016
(aaa). Real-time monitoring of the mechanism of ibuprofen-cationic dextran crystanule formation using crystallization process informatics system (CryPRINS) International Journal of Pharmaceutics, 2016
(aab). Gulp1 Is Associated with the Pharmacokinetics of PEGylated Liposomal Doxorubicin (PLD) in Inbred Mouse Strains Nanomedicine: Nanotechnology, Biology, and Medicine
(aac). Ex vivo skin permeation and retention studies on chitosan-ibuprofen-gellan ternary nanogel prepared by in situ ionic gelation technique - a tool for controlled transdermal delivery of ibuprofen International Journal of Pharmaceutics 2015
(aad). Pediatric Obesity: Pharmacokinetics and Implications for Drug Dosing. Clinical Therapeutics 2015
(aae). pH-sensitive biocompatible nanoparticles of paclitaxelconjugated poly(styrene-co- maleic acid) for anticancer. Molecular Pharmaceutics 2015

ACHIEVEMENTS AND RECOGNITION IN MANUSCRIPT REVIEW

**** "2013 Top Reviewer Award" by the Journal of Pharmaceutical Sciences (*JPharmSci)*.**
**** "2013 Top Reviewer Award" by the Journal of Nanomedicine: Nanotechnology, Biology, and Medicine**
**** "2015 Submission Waiver Fee Award" by the Journal of Nanomedicine: Nanotechnology, Biology, and Medicine (We are delighted to let you know that submission fees are now waived for you, because you have completed more than 15 reviews for the journal in recent years: Editor-in-Chief, Lajos P. Balogh, PhD).**

PROFESSIONAL AFFILIATIONS

1980 - Present: Member of the Pharmaceutical Society of Nigeria
1983 – Present: Member of the Nigerian Association of Academic Pharmacists and Quality Control Society of Nigeria
1983- 1994: Member of Commonwealth Pharmaceutical Association
1983- 1994: Member of the Royal Society of Health
1994-Present: Member of Controlled Release Society (International)
1995-Present: Member of the American Association of Pharmaceutical Scientists
1998-Present: Member of American Chemical Society
1998-Present: Member of American Association of Colleges of Pharmacy
1998-2010: Member of Research Society on Alcoholism
1998-2007: Member and Publicity Secretary, American Association of Nigerian Pharmacists, Washington Metropolitan Area
2000-Present: Member and Principal Investigator, Howard University Keck Center for the Design of Nanoscale Materials for Molecular Recognition
2002-Present: Pharmacist on Call: Bioterrorism Preparedness and Response Plan (Government of the District of Columbia: The District of Columbia Department of Health and the Board of Pharmacy).
2002-Present: Member Sigma Xi, The National Research Society (USA)
2002-Present: Member of Rho Chi Society: Pharmacy Academic Honor Society (Beta Sigma Chapter, Howard University) and Chapter Faculty Advisor
2003-2012: Member of the Education Committee of the Controlled Release Society
2008-2013: Collaboration (Surface and structural analysis of nanoparticles) with Dr. John A. Small, the Division Chief of the Surface and Microanalysis Science Division at the National Institute for Standards and Technology (NIST). My Ph.D. student (Simeon Adesina) were granted Visiting Scientist Status at NIST
2009 –2014: Collaboration (Cell culture studies, in vivo distribution studies and biomarker based targeting of nanoparticles for cancer treatment and imaging) with Dr. Jacek Capalla, Head, Molecular Targeting Section Radiation Oncology Branch, NCI/NIH. My Ph.D. students (Simeon Adesina and Oluwaseun Ogunwuyi) were granted Visiting Scientist Status at NCI/NIH
2009 – Present: Member, Nigerian Association of Pharmacists and Pharmaceutical Scientists in the Americas, Inc. (NAPPSA) & Member of the

Organizing Committee for the 2009 Annual Scientific Conference and Exposition, September 17-20, 2009: Conference Theme: "Drug Development and Pharmaceutical Care in the 21st Century"
2012 - Present: Member of the International Society of Pharmaceutical Engineering
2012 - Present: Member of the Parenteral Drug Assicaition (PDA)
2012-Present: Member of American Association for Cancer Research (AACR)
2013 – Present: Member of the Advisory Group of the Center for Pharmaceutical Advancement and Training of the United States Pharmacopeia
2015- Present: member of a USP (United States Pharmacopeia) Expert Committee (the General Chapters-Dosage Forms USP's Expert Committee for the 2015-2020 cycle). USP Expert Committees are responsible for developing and revising USP standards that comprise its compendia: the USP and the NF, USP Compounding Compendium, Herbal Medicines Compendium, Dietary Supplements Compendium, and Food Chemicals Codex.

RESEARCH GRANTS FUNDED BEFORE JOINING HOWARD UNIVERSITY:

(A) Obafemi Awolowo University, Nigeria
A.1 Suppository Formulation of Antimalarial Drugs: Amodiaquine and Chloroquine (Obafemi Awolowo Univeristy, Ile-Ife, Nigeria, 1987-1989: N25, 000) (PI).

A.2 Applications of Iontophoresis Technique in Drug Therapy (Obafemi Awolowo Univeristy, Ile-Ife, Nigeria, 1988-1992: N20, 000) (Co-PI).

(B) International (Outside Nigeria)
B.1 The Third World Academy of Sciences (Italy) Exploratory Research Grant No BC 89-25 for a Project Entitled "Integrated Computer Optimization System for Use in the Formulation and Development of Pharmaceutical Dosage Forms, 1990 – 1992): $5,000 (PI).
B.2 DAAD Fellowship Grant by the Government of the Federal Republic of Germany: 11, 000 Germany Marks (Then approximately $11,458) Excluding the Cost of Air Ticket. Utilized at The Institute of Biopharmaceutics and Pharmaceutical Technology, University of Munster (1993) (PI).
B.3 National Institutes of Health (Fogarty International Center) Fellowship Grant, USA (1 F05TW005182-01). Awarded to me in Nigeria but utilized at the University of Utah. $65,000 for Two Years (Excluding $3,000 for air flight) (PI).

RESEARCH GRANTS FUNDED AFTER JOINING HOWARD UNIVERSITY

(1). Howard University Fund for Academic Excellence: Workshop on the Applications of Polymeric Biomaterials in Drug Delivery, Drug Targeting and Gene Delivery. Status: Funded. $2,500, October 30, 1998. (Principal Investigator).

(2). Howard University Fund for Academic Excellence: Stimulation of Pharm.D. Degree Students' Interest in Laboratory Research Oriented Higher Degree (Ph.D.) 1999 (Co-Principal Investigator): PI is Dr. K.R. Scott. Status: Funded $5,000.

(3). Howard University Fund for Academic Excellence: Reinforcing Concepts by Studying Experts: An Integrated Approach to the Teaching of Pharmaceutics. Status: Funded. $2,500. March 12, 1999. (Principal Investigator).

(4). Howard University New Faculty Research Program: Hydrogel Drug Delivery Systems for Peptides and Proteins". Status: Funded. April, 1999, $47, 335 over one year. (Principal Investigator).

(5). NIH/NIAAA (IU24AAA11898-03): NIH Grant (Howard University Collaborative Alcohol Research Center: "Polymeric Controlled Delivery System for Naltrexone for the Treatment of Alcoholism". October, 1999). Requested $99,725 over two years ($38,151.00 was awarded for the first year due to budget cut) (Principal Investigator).

(6). Howard University Fund for Academic Excellence: Computer-Based Pharmacokinetics Workshop for Pharmacists and Doctors: Status: Funded. $5,000. May 15, 2000 (Principal Investigator).

(7). InnaPhase Corporation, Philadelphia, PA: Computer-Based Pharmacokinetics Workshop for Pharmacists and Doctors: Status: Funded. September 20, 2000 (Principal Investigator) ($5,000)

(8). 2000-2001 Merck Research Scholar Award to a Pharm.D. Student, Oluchi Uloaku Njoku (Sponsored by My Laboratory): $5,500 for One Year (Polymeric Oral Drug Delivery System for Proteins and Peptides)

(9). NIH/NIAAA (IU24AAA11898-03): Howard University Collaborative Alcohol Research Center: "Polymeric Controlled Delivery System for Naltrexone for the Treatment of Alcoholism". Status: Funded. October, 1999. Requested $99,725 over two years ($43,000.00 for the second year beginning in October 2000) (Principal Investigator).

(10). Co-Investigator in the one million dollars ($1,000,000) research grant of Dean Pedro J. Lecca, Ph.D. (NCRR/NIH Grant #1 C06 RR 14469-01 "Extramural Research Facilities Construction and Renovation of Third Floor in Chauncey Cooper Hall (Pharmacy Building), 2000. Supplemented by $1,200,000 from the President of Howard University: H. Patrick Swygert, J.D.

(11). Co-Investigator in W. M. Keck Foundation Research Grant: HU Keck Center for The Design of Nanoscale Materials for Molecular Recognition January 2002-December 2003: $750,000; it was supplemented with $250,000 from the President of Howard University: H. Patrick Swygert, J.D. (My project is "Nano sized targetable and biorecognizable dendritic biomaterials").

(12). Eli Lilly Grant: The Synthesis of Analogs of NSC D698576 and NSC D698577 and Development of Targetable Delivery Systems for Ovarian Cancer. June 2001. $12,500 for one year (Co-Principal Investigator). PI is Dr. K R. Scott.
(13). Howard University Fund for Academic Excellence (Travel Fellowship): Particles 2002. Symposium and Workshop on Medical/Biochemical, Pharmaceutical and Drug Delivery Applications of Particle Technology, Orlando Florida, January 2002. $3,500 (Principal Investigator)
(14). NIH/NIAAA: Polymeric delivery system for naltrexone. NIH Grant # 1 R21 AA13407 01 PI: Akala, Emmanuel O. January 2002-2006 $453, 000:00.
(15). Howard University Award (Fund for Academic Excellence: Travel Fellowship) 30th Annual Meeting & Exposition of the Controlled Release Society, Glasgow, Scotland (July 2003) $3,000 (Principal Investigator) (PI)
(16). NIH/NCRR 1 C06 RR 020608-01 renovation of ground and first floors of Chauncey I. Cooper Hall to house the Center for Drug Research and Development (CDRD). Principal Investigator: Dr. Pedro J. Lecca (the Dean of the College of Pharmacy, Nursing and Allied Health Sciences). Dr. Emmanuel O. Akala is the Co-Principal Investigator and the Program Director for the Center (I wrote the grant proposal). ($3,519,397.00: September 2004- June 30, 2009)
(17). Fund for Academic Excellence Grants Program, Cycle 11, Travel Grant Proposal ((TRAV (CYT1106/03): Visit to the Center for Pharmaceutical Science & Technology (The Chao Center in Purdue Research Park, Purdue University, West Lafayette, Indiana) in connection wit CDRD development and participation in a workshop on Statistical Experimental Design July 1, 2005 to June 30, 2006 ($3,871) (PI)
(18). NIH/National Cancer Institute: "Biodegradable Polymeric Nanosphere Drug Delivery System for Cancer Chemotherapy" (Grant #: 1 SC2 CA138179-01) 2008-2012, $333,000 (PI)
(19). Fund For Academic Excellence Grants Program Proposal: Akala (PI) 07/01/ 2008-06/30/2009: Participation in Aseptic Compounding Workshop at the Professional Compounding Center of America, Houston, Texas. $4,147 (PI)
(20). Nanobiotechnology Center (NBTC), Cornell University: Seed Grant for On-Chip NanoPorous Membranes for Separation and Semipermeable Transport of Biomolecules under Devices & Analysis Program of NBTC, Cornell University (Program Coordinator: Lois Pollack, Ph.D.) PI: Kimberly Jones, Ph>D. (PI); Co-PI: Emmanuel Akala (Akala's sub-project: *In vivo* detection of cancer biomarkers and the detection of cancer biomarkers ex-vivo: $20,000 to support a Research Associate).
(21). Health Sciences Faculty Seed Grant Program (Senior Vice President, Donald E. Wilson Grant). Novel Biodegradable Nanoparticles for Targeted Oral Delivery of Drugs. Grant #46. PI: Funded $25,000 (April 2009 to June 2010).
(22). NSF Career Award (Grant number: BES 0547613, PI: Chun Wang: Biomimetic Engineering of Responsive Biomaterials, and Supported Financially by the NSF-Funded Materials Research Science and Engineering Center (MRSEC). Research

Experiences for Undergraduates (REU), $400,000 2006-2011. (Emmanuel O. Akala: Collaborator in the Area of Research Experiences for Undergraduates (REU))
(23). NIH/NIAID: P30AI087714 (PI) 09/16/2011 – 09/15/2014: Title of Project: The District of Columbia Center for AIDS Research (DC-CFAR) (Targeting Drug (ARV)-Loaded Multifunctional Nanoparticles to M Cells Overlaying GALT (HIV-1 Reservoir). The goal is to use nanotechnology platform to target drugs to HIV-1 reservoir. $600,000:00 (PI).
(24). Georgetown-Howard Universities Center for Clinical and Translational Science (GHUCCTS), Translational Technologies Resources Component (TTR) funding for our project entitled "Development of Multifunctional Nanoparticles for Molecular Imaging and Targeted Therapy of Breast Cancer." Role: Akala PI. January 2012 to December 2012. $14,500 to access imaging equipment.
(25). Biodegradable Nanoparticles for the Co-delivery of siRNA and Anti-HIV Drugs. (Akala: Mentor; Simeon K. Adesina – PI). 03.01.2014 – 02.28.2016. DC Developmental Center for AIDS Research Research Awards Program. $ 50,000
(26). NIH/NCI: 1SC1CA199810-01 Akala (PI) 05/01/15-04/30/18: Title of Project: Novel Nanotechnology Platform for Breast Cancer Treatment ($1,132,500:00).
(28).

EQUIPMENT GRANTS FUNDED

(1). Aquisition (From National Science Foundation) of 400 MHz NMR System in Collaboration with Colleagues in the Department of Chemistry, Howard University (Funded and Installed in May 2002) $215,600 (with a matching fund from Howard University). P.I. Professor J. M. Nicholson; Emmanuel O. Akala, R.Ph., Ph.D. is a Co-Investigator.
(2). Howard University Small Equipment Grant Award ($39,000) for the purchase of CLARIOstar: Installed in May 2016 (PI).

TOTAL = $ 10,282,533

RESEARCH PROPOSALS/LETTERS OF INTENT SUBMITTED BUT NOT FUNDED AFTER JOINING HOWARD UNIVERSITY

(1). Proctor & Gamble Company University Exploratory Research Program: "Development of organic redox and photopolymerization methods for fabrication of hydrogels for oral protein drug delivery and the formulation and assessment of a new absorption enhancer based on N-acylhydroxylamine for oral drug delivery". Status: Not funded. $ 149,290 over three years. January, 1998 (Principal Investigator)

(2). Preliminary Application to Minority Health Professions Foundation, Centers for Disease Control and Prevention, Atlanta, Georgia: "Development of Organic Redox Initiator and Photopolymerization Methods for the Fabrication of Hydrogels for Oral Delivery of Peptide/Protein (Insulin) Drugs and Assessment of a New Absorption Enhancer based on N acylhydroxylamine for Oral Drug Delivery. Status: Not funded. June 22, 1998. $70, 000 over one year (Principal Investigator).
(3). The American Association of Colleges of Pharmacy 1998-99 New Investigators Program for Pharmacy Faculty: "Photopolymerization and Redox-Initiated Polymerization Methods for Fabricating Hydrogels for Oral Peptides and Proteins Delivery". Status: Not funded. October 1, 1998. $10,000 over one year (Principal Investigator).
(4).The Whitaker Foundation Preliminary Application for Biomedical Research Grants: "Peptide/Protein Drug-Hydrophilic Polymer Conjugates for Stabilization and Site/Rate Specific Delivery". December 15, 1998. $210,000 over three years (Principal Investigator).
(5). United States Army BAA 99-1 Research Proposal: "Peptide/protein drug hydrophilic polymer conjugates for stabilization and site/rate specific delivery", August, 1999. $290,778 over two years (Principal Investigator).
(6). Howard University Mordecai Wyatt Johnson Program: Redox Agent Delivery, Induction of Mutation and Suppression of Cancer Cell Growth (November 1, 1999). $260,700 for Two Years (Co-Principal Investigator).
(7). Minority Health Professions Foundation, CDC, Atlanta, Georgia: Macrophage Targeting for HIV/AIDS therapy (Letter of intent: June 30, 2000). $97,500 for Eighteen months (Principal Investigator).
(8). National Institutes of Health: Polymeric delivery systems for insulin and interferons, September 2000. $302,000 over three years (Principal Investigator).
(9). National Science Foundation (Nanoscale exploratory research): Nano-sized hydrolyzable dendritic biomaterials. November, 2000. $99,260 for one year (Principal Investigator).
(10). Nih/RCMI (Howard University College of Medicine): Polymeric targetable drug delivery systems for AIDS, cancer and some autoimmune diseases. December 2000. $605,806 for five years: (Principal Investigator). I was not invited to submit a final proposal despite a positive initial review.

(11). Lilly Proposal: ^{19}F NMR Study of Trifluoroperazine Crossing Blood-Brain-Barrier Due to P-glycoprotein Modulation., June 2001. $20,000 for one year (Co-Principal Investigator).
(12) Lilly Proposal: Combinatorial Synthesis of Small Libraries of Diethiocarbamyl Derivatives of Emetine and Podocarpic Acid for Anticancer Drug Development, June 2001. $20,000 for one year (Co-Principal Investigator).
(13). Proposed Howard University Center of Excellence in Research on the Role of Reactive Species in Biological Systems under the Auspices of Centers of Research Excellence in Science and Technology of the National Science Foundation (CREST). $5,000,000:00 for five years (P.I.: Dean Lecca). (My project: Studies on novel methods of presentation of antioxidant scavengers to cells and synthesis and antioxidant scavenger properties of novel flavonoids (Co-Principal Investigator). I wrote the whole proposal).
(14). Design of Stealth Nanospheres Suitable for Encapsulating Recombinant Bioactive Proteins (NSF Nanoscale Exploratory Research Program): Submitted on October 24, 2002 ($100,000).
(15). National Science Foundation (NSF) Proposal for Howard University National Science and Engineering Center for Biocompatible Nanomaterials and Systems ($5,000,000). Submitted on October 20, 2003 (Co-Investigator).
(16). Design of Stealth Polymeric Nanospheres for Controlled Delivery of Peptide and Protein (Consortium of Universities of the Washington Metropolitan Area Foundation: Program of Grants In-Aid to Young Scholars, November 2003) . Submitted with a graduate student in November 2003.
(17). Colloidal Controlled and Targetable Drug Delivery Systems for Brain Diseases (Carnegie Foundation Scholars Program; Submitted Through the Howard University President's Office, January, 2004) $100,000.
(18). Acquisition of Instrumentation to Enhance the Nano-Bio Interface at Howard University: DoD instrumentation grant ($479,386.00). W. Anderson (Professor of Biology), Howard University PI & Coordinator, August, 2004. Emmanuel Akala, Co-PI.
(19). Army/Minnesota High Performance Computing Consortium: Computer-based optimization of stealth polymeric nanospheres formulation for the delivery of bioactive agents, August 2005 (PI) with Dr. James A. Momoh, Director, Center for Energy Systems and Control, College of Engineering Howard University ($200,000).

(20). Acquisition of Transmission Electron Microscopic Instrumentation to Enhance the Bio-Nano-Interface at Howard University (Establishment of a Structural Biology and Biophysics Core Lab): National Science Foundation Proposal No: 0721223 Jan 19 2007 (PI: Winston Anderson, Co-PIs James Mitchell, Clay Bates, and Emmanuel Akala, Howard University, $698,200.00). Participating institutions/organizations: Howard University, Catholic University of Washington, and Morgan State University.

(21). Center for Engineering Colloids and Surfaces (CECS) - Proposal: Director, James Bonner, Clarkson University. Lead Institution: Clarkson University. Core Institutions: Howard University (School of Pharmacy: Emmanuel O. Akala, R. Ph., Ph.D. and School of Engineering: Kimberly L. Jones, Ph.D. & James H. Johnson, Jr. Ph.D.), Stanford University, University of Utah, and Johns Hopkins University. Funding Agency: National Science Foundation (Submitted April 2007). The budget is $10,000,000:00

(22). NIH (1 RC1 EB010883-01) Economic Recovery Grant: Novel Biodegradable Nanoparticles for Targeted Delivery of Drugs for Immunosupression in Organ Transplantation. Submitted in April 2009. $982,202 PI

(23). Grants.gov Tracking #: GRANT10713060 NIST 2011-2013 PI Akala, Emmanuel "Fabrication, Characterization and Development of Empirical Mathematical Models for Multifunctional Nanoparticles" (National Institutes of Standard and Technology (NIST): Submitted on October 8, 2010. $ 309,201.60

(24). Grants.gov Tracking #: GRANT10700001 NIGMS/NIH 2011-2014 PI AKALA, EMMANUEL "Rational Design of Multifunctional Polymeric Nanoparticles for Breast Cancer Diagnosis and Treatment". Submitted on September 25, 2011. $ 1,295,000.00

(25). Grants.gov Tracking Number 10591664: Department of Defense Congressionally Directed Medical Research Programs (2011-2013: The Breast Cancer Research Program (BCRP)-Breast Cancer Research Idea Award BC101608, "Synergistic Cooperation Between 17-DMAG and Multifunctional Nanoparticles for Breast Cancer Diagnosis, and Triggered Drug Delivery": Emmanuel O. Akala, R.Ph., Ph.D. (PI). Submitted on Friday, April 30: ($ 546,832.00)

(26). Grants.gov Tracking Number GRANT10609965, NIC/NIH 2011-2014 PI AKALA, EMMANUEL "HER2-Selective Multifunctional Nanoparticles for Molecular Imaging, Triggered Drug Release, and Targeted Therapy of Breast Cancer" $740,000.00. Submitted on Friday May 28, 2010

(27). The NIH grant tracking number GRANT10500403, "A Training Program - Application of Nanotechnology in Cancer Diagnosis and Therapy". PI is Professor Paul Wang of the Department of Radiology, Howard University. My role in the grant is "Collaborator/Mentor" The grant was submitted on Dec 17, 2009 and total budget was $ 2,152,822:00.
(28). NIH/Center to Reduce Health Disparity: Howard/Hopkins Cancer Center Partnership 2012 Full Project and Pilot Project Initiative: Submitted on September 4, 2012. ($1,115.000. 2013-2016). My role: Investigator.
(29). Design and Development of Stimuli Responsive Polymers for Nanoparticle Fabrication for Drug and Nucleic Acid Delivery. (Simeon K. Adesina – PI) 07.01.2014 – 06.30.2017 National Science Foundation NSF: PD 06-7623 $320,442.17 (Akala: Collaborator)
(30). Two-Step Targeting for the Eradication of Latent, Sensitive and Multidrug-Resistant Pulmonary Tuberculosis (MDR TB) Infection. (Simeon K. Adesina – PI). 07.01.2015 – 06.30.2017. NIH R03 1 R03 AI119898-01 $151,000 (Akala: Collaborator)
(31). Development of a Targeted Nanoparticle System for the Eradication of Latent, Sensitive and Multidrug-Resistant Tuberculosis (MDR TB) Infection Georgetown-Howard Universities Center for Clinical and Translational Science Junior Faculty Career Development Award 09.01.2014 – 08.30.2017 GHUCCTS-KL2 $356,430 (Akala: Mentor) (Simeon K. Adesina – PI).
(32). Nanotechnology Facilitated Synthetic Lethality for Treatment of Metastatic Prostate Cancer Simeon K. Adesina (PI) 10.01.2015 – 09.30. 2018 Prostate Cancer Foundation $225,000 (Akala: Mentor)
(33). Combination Chemotherapy and Synthetic Lethality Using Nanotechnology for Prevention of Resistance and for Treatment of Advanced Prostate Cancer. Simeon K. Adesina (PI) 04.01.2016 – 03.31.2018 NIH R21 1R21CA205177-01 $377,500 (Akala: Collaborator).

RESEARCH PROPOSALS/LETTERS OF INTENT SUBMITTED AND PENDING

(1). NIH/NHLBI (R01: PI S. Nekhai; Co-Investigator: Emmanuel O. Akala). Impaired Resolution of Inflammation in HIV-Associated COPD ($3,000,000) 03/01/15-02/28/2019

(2).Design and Development of Stimuli Responsive Polymers for Nanoparticle Fabrication for Drug and Nucleic Acid Delivery. Grant (Simeon K. Adesina – PI) 07.01.2014 – 06.30.2017 National Science Foundation NSF: PD 06-7623 $320,442.17 (Akala: Collaborator).
(3). Development of Stealth Nanotechnology Platform for Advanced Ovarian Cancer Therapy Simeon K. Adesina (PI) 0.01.2016 – 09.30.2018 Pilot Award, Ovarian Cancer Research Program/DoD # OC150238 $357,379 (Akala: Consultant)
(4). Targeted Combination Nanotherapeutics for Treatment of Advanced Ovarian Cancer Simeon K. Adesina (PI) 07.01.2016 – 06.30.2018 NIH R21 1R21CA209356-01 $377,526 (Akala: Consultant)
(5). Nanoparticle-Facilitated Synergistic Combination Therapy for Advanced Prostate Cancer Simeon K. Adesina (PI) 12.01.2015 – 11.30.2018 Georgetown-Howard Universities Center for Clinical and Translational Science Junior Faculty Career Development Award GHUCCTS-KL2 $346,776 (Akala: Mentor)
(6). Howard University Animal Facility Improvement Project (Thomas Obisesan, PI; Emmanuel O. Akala, Investigator and the Veterinarian (Dr. Hughes). National Institutes of Health Research Infrastructure Programs ($500,000) 07/01/2016-06/30/2017

PROFESSIONAL DEVELOPMENT COURSES AND TRAINING

(1). Nucleic Acid and Protein Sequence Analysis at The Pittsburgh Supercomputing Center, Biomedical Supercomputing Initiative; An NIH Supported Center, University of Pittsburgh, August 1 - 6, 1999
(2). Protein and Gene-Based Drugs: Product Development and Delivery Challenges at the American Association of Pharmaceutical Scientists Annual Meeting and Exposition, New Orleans, LA, November 14, 1999.
(3). AACP Institute- Xerox Document University Training and Conference in Leesburg, Virginia, May 21-25, 1999 (Curriculum Development Issues).
(4). Lyme Disease, Glaxo-Wellcome, Washington, DC, October 14, 1999
(5) Effects of Liver Metabolism on Safety of Statin Therapy, Bristol-Myers, Washington, DC., September 15, 1999.
(6). Drug-Drug Interactions and Cytochrome P450 System, Bristol-Myers, Washington, DC., September 15, 1999.
(7). Second Workshop on "Herbal Remedies and Alternative and Complimentary Therapies", Howard University, May, 2000.
(8). NIH/National Institute of Alcohol and Alcoholism Professional Alcohol

Education Project Training Course, Howard University, February 2000
(9). On-line Pharmacies: Implications for the Future. The University of Mississippi, May 2000
(10). Blackboard Learning Services: Development of web-based lectures and examinations (June 2001). Howard University School of Pharmacy
(11). Wyatt Technology Corporation: Light Scattering University, (February 2001), Santa Barbara, California.
(12). Federation of American Societies for Experimental Biology: Writing Winning Grants (June 20001), Tuscon, Arizona
(13). Controlled Release Society: Transmucosal Vaccine Delivery (June 2001), San Diego, California
(14). AACP Annual Meeting Workshop: Graduate Education Forum (Building graduate program enrollment) July, 2001. Toronto, Canada.
(15). Confirmatory Evidence to Support a Single Trial as a Basis for Drug Approval: Georgetown University Medical Center (Center for Drug Development Science), January 2002.
(16). International Symposium on Tumor Targeted Delivery Systems, National Institutes of Health Campus (Jointly Sponsored by The National Cancer Institute and Controlled Release Society) September 22-25, 2002.
(17). Jump Start for New Faculty: A Faculty Development Seminar, Albany College of Pharmacy (August 4-6, 2002)
(18). Numerous In-House Seminars and Workshops Organized by the School of Pharmacy, Howard University by Bringing in Experts.
(19). Training Workshop on Minitab. Release 14: Scientific Data Analysis and Simulation, State College, PA July 19-21, 2004
(20). Howard University Sales Training Seminar Conducted by McNeil Consumer & Specialty Pharmaceuticals, September 1, 2005
(21). Annual FDA Science Forum, (Medical Product Design, Characterization, and Manufacturing) 2006. Washington Convention Center, Washington, DC. June 2006
(22). 29TH Annual Meeting of the Research Society on Alcoholism, Baltimore, Maryland, July 2006
(23). Workshop on "Mixture Design for Optimal Formulations", Organized by Statease, Inc. in Philadelphia, October 2006
(24). Workshop on Mechanism of Alcohol-Mediated Organ and Tissue Damage: Oxidative Stress, Signal Transduction and Nuclear Receptors at the 29TH Annual Meeting of the Research Society on Alcoholism, Baltimore, Maryland, July 2006

(25). Interactions with Researchers at the Chao Center for Industrial Pharmacy, Purdue University in connection with the Center for Drug Research and Development, Howard University, September 2006 (Participation with Dr. Joseph Fortunak)
(26). Professional Compounding Centers of America: Compounding Laboratory Boot Camp Workshop, May 2007 (Attended with Dr. M. Habib)
(27). Howard University Nanotechnology Symposium November 5-6, 2007
(28) "Psychological First-Aid Training" Conducted by Health Emergency Preparedness and Response Administration, Washington DC, August, 2007
(29). Workshop on "Response Surface Methods for Process Optimization" Organized by Statease, in Minneapolis, MN, September 2007
(30). Cancer Health Disparities Summit 2008 (Summit 08), at the Bethesda North Marriott Hotel and Conference Center in Bethesda, Maryland (Organized by the National Cancer Institute/NIH). July 14–16, 2008.
(31). 2nd Howard University Nanotechnology Symposium, November 2008.
(32). Fourteenth International Symposium on Recent Advances in Drug Delivery Systems, Utah Feb 2009 February 15-18, 2009
(33). Workshop and Training in Sterile Drug Product Preparations (Professional Compounding Center of America, Houston, Texas) May 12 to 15, 2009
(34). Presentation at Nanobiotechnology Center Seminar Series, Cornell University, Ithaca, New York, on Tuesday, March 3, 2009 and Interaction with Faculty Members for Exploring Research Collaboration Opportunities.
(35). Symposium on Biomedical Polymers for Drug Delivery in honor of Professor Kopecek,, SLC, Utah March 26-27 2010
(36). 15th International Symposium on Recent Advances in Drug Delivery Systems "Drug Delivery's New Directions In A New Decade" Utah 2/13/2011 - 2/16/2011
(37). 39th Controlled Release Society (CRS) Annual Meeting & Exposition, July 15 – 18, 2012, at the Centre des Congrès de Québec, Québec City, Canada.
(38). 40th Annual Meeting & Exposition of the Controlled Release Society, July 21 – 24, 2013, in the Hawaii Convention Center in Honolulu, Hawaii, USA.
(39). Quality by Design Pharmaceutical Development Workshop at the University of Copehagen, August 11-25, 2014
(40). AACR Special Conference on Tumor Immunology and Immunotherapy: A New Chapter Held on December 1-4, 2014 at the Disney's Contemporary Resort, Orlando, FL. Further

(41). I organized a workshop on documentation to demonstrate consideration of alternatives in the use of
animals for research with emphasis the meaning of 3Rs (Replacement, Reduction and Refinement). Presented by D'Anna Jensen Technical Information Specialist USDA, Animal Welfare Information Center on October 8. 2015
(42). Pharmacogenomics and Therapeutics Drug Monitoring: Guided Treatment for Precision Patient Care by Kevin Rosenblatt, MD, Ph.D. Companion Dx, Houston Texas. (Organized by Howard University Hospital and The National Human Genome Center, Howard University. June 14, 2016
(43). IND IND Workshop - "IND Basics" SPEAKER: Evaristus Nwulia, M.D. October 16, 2015
(44). Design of Experiment, Quality by Design and Design Space in Basel Switzerland, June 7 to 9, 2016
(45) An Educational Workshop on Size Exclusion Chromatography for Biotherapeutics: Method Development, Optimization and Troubleshooting by Waters Corporation June 16, 2016
(46). DC CFAR Basic Sciences Core Providers' Day (May 4, 2016).
(47). Scientific Symposium on Viruses & Cancer: The GWU Cancer Center, the Institute for Human Virology at the University of Maryland and the DC Center for AIDS Research presented a scientific symposium focused on HIV, April 19, 2016
(48). XXV International HIV Drug Resistance Workshop. Organized by District of Columbia Center for AIDS Research (DC-CFAR), Feb, 20-21, 2016
(49). Numerous online one-hour seminars in my areas of research endeavors
(50). I participated actively in 2016 Annual Meeting of the USP Dosage Forms Expert Committee, May 2016
PERSONAL DATA
Married with four Children and two grand children

TEACHING ACTIVITIES

(A) Obafemi Awolowo University Nigeria:
A.1. B.Pharm. Degree (undergraduate professional degree in pharmacy) courses:
(i) Pharmaceutical Dosage Forms Design (One hundred and twenty students per year: 1986-1994).

(ii) Drug Production and Control (One hundred students per year: 1986-1994).
(iii) Biostatistics for Clinical Pharmacy Program (One hundred students per year: 1986-1994).
(iv) Physical Pharmacy (One hundred and twenty students per year: 1986-1994).
A.2. M.Sc. and Ph.D. (postgraduate) Degree Courses
(i) Principles of Drug Formulation Including Novel Drug Delivery Systems (principles, materials of formulation, biopharmaceutics and selected topics in pharmacokinetics) (Five to eight students per year, 1986-1994).
(ii) Drug Stability and Packaging Including Statistical Experimental Design (Five to eight students per year: 1986-1994).

(B) University of Manchester, England
(i) Teaching Assistant to Professor J. H. Collett in Dosage Forms Design (About forty students per year: 1983 to 1986)
(ii) Laboratory Assistant to Professor J. H. Collett for Final Year B. Pharm. Students in an Elective Course in Formulation Science (Three to four students per year: 1983 to 1986)

(C) University of Munster, Germany
Informal Interactions with Graduate Students of Professor R. Groning in the Laboratory (1993)

(D) University of Utah
Formal and Informal Interactions with Graduate Students (Department of Pharmaceutics and Department of Bioengineering) of Professor J. Kopecek in the Laboratory and in Two Courses: Biomaterials and Biocompatibility) (About twelve students per year: 1994 to 1997)

(E) Howard University
(i) Physical Pharmacy (Spring 1998, Summer 1998, Spring 1999, Spring 2000, Spring 2001, Spring 2002,Spring 2003 and Spring 2004: Serve as the coordinator in Spring 2002). About seventy Pharm.D. students in spring and thirteen in summer). Responsibilities included teaching, problem solving sessions, examinations and grading.
(ii) Pharmaceutical Science Laboratory (including Pre-lab Lectures) (Spring 1998, Summer 1998, Spring 1999, Summer 1999, Spring 2000, 2001, Spring

2002, Spring 2003 and Spring 2004). About seventy Pharm.D. students in spring and thirteen to seventeen in summer). Responsibilities included teaching, problem-solving sessions, demonstration of laboratory experiments, examinations and grading.
(iii) Pharmaceutical Technology (Fall 1998, Fall 1999, Fall 2000, Fall 2001, Fall 2002 and Fall 2003). About seventy Pharm.D. students. Served as the coordinator in Fall 1998, Fall 2002, Fall 2003 and Fall 2004. Other responsibilities included teaching, examinations, grading, and trips to pharmaceutical companies.
(iv) Pharmaceutical Mathematics (Fall 1998, Spring 1999, Fall 1999, Fall 2000, Fall 2001, Fall 2002 and Fall 2003). About seventy Pharm.D. students. Served as the coordinator in Fall 1998. Responsibilities included teaching, problem solving sessions, examinations and grading.
(v) Applied Pharmacokinetics (Spring 1999, Spring 2000, Spring 2001, and Spring 2002) About seventy Pharm.D. students. Served as the coordinator in Spring 1999. Other responsibilities included teaching, problem solving sessions, examinations and grading.
(vi) Biopharmaceutics (Fall 1999, Fall 2000, and Fall 2001). Seventy two Pharm.D. students. Served as the coordinator in Fall 1999. Other responsibilities included teaching, problem solving sessions, examinations and grading.
(vii) Research in Pharmaceutical Sciences (Spring 1998, Spring 1999, Spring 2000, Spring 2001, Spring 2004, Spring 2005 and Summer 2005). Served as the coordinator. Two Pharm.D. students in spring 1998; three in spring 1999; two in Spring 2000, and one in Spring 2001. Responsibilities included background teaching on the research topics, introduction to information retrieval from the library and the internet, demonstration of experimental protocols and assistance in the preparation of posters for presentation.
(viii) Evaluation of Research Proposals (Principles of Research): Spring 1999: Six proposals were evaluated for Pharm.D. students.
(ix) Research Student Advisor (Proposal: Requirement for Principles of Research): Two students in Spring 2000, two in Spring 2001, two in Spring 2002, two spring 2003, and three in spring 2005).
(x) Research Student Advisor (2000-2001 Merck Research Scholar Award; $5,000.00). The project was sponsored by my laboratory. Project supervision and guidance for the presentation of the work at AACP meeting in Toronto, Canada.
(xi) Research Student Advisor (Center of Excellence, College of Pharmacy,

Nursing and AHS, Howard University Summer Research experience for Students). One student in Summer 2001, one in Summer 2002, and two in Summer 2003).
(xii) Supervision of Leadership Alliance Institutions Students (Claflin University) Summer 2002: One student was supervised

(xiii) Graduate Courses (MS. & Ph.D.) at Howard University:
(a) Grant Proposal Writing (85722-703-01): Fall 2002, Fall 2003 and Fall 2004
(b) Advances in Drug Delivery Systems (Fall 2006)
(c) Principles of Drug Formulation (Spring 2006 & 2007)
(d) Drug Stability and Packaging (Spring 2007)
(d) Nanotherapeutics (Fall 2007)

(xiv) New Pharm.D. Curriculum
(a) Introduction to Pharmacy (Fall 2004: One hundred and twenty students)
(b) Pharmaceutical Care (Fall 2004: One hundred and twenty students)
(c) Pharmaceutical Sciences I (Coordinator): Spring 2005: One hundred and twenty students)
(d) Pharmaceutics (Coordinator): Spring 2006 and 2007 (One Hundred and Ten & Fifty Five Students Respectively)

New Format Required for Presenting Teaching Activities in Annual Reports

SCHOOL OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2006 - 2007

Faculty Name	Course Title	Course Level	CRN	Credit	Number Enrolled	Total Lecture Hours Taught	Total Lab Hours	Total Clinical Hours
SCHOOL/DIVISION								
Akala, E. O.	Pharmaceutics	Pharm. D.	16216	4	65	35	NA	NA
Akala, E. O.	Principles of Drug Formulation	Ph.D.	16922	3	2	35	NA	NA
Akala, E. O.	NIH Grant	Ph.D.	87722	1	4	24	NA	NA

	Proposal Writing							
Akala, E. O.	Seminar in Pharmaceutical Sciences	Ph.D.	85720	2	4	15	NA	NA
Akala, E.	Introduction to Pharmacy	Pharm. D.	86688	2	62	6	NA	NA
Akala, E.	Pharm. Care I	Pharm. D.	86690	3	62	14	NA	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	13369	3	2	NA	256	NA
Akala, E.	Pharmaceutical Sciences Laboratory	Pharm. D.	16219	3	60	3	27	NA
Akala, E.	Advances in Drug Delivery Systems	Ph.D.	87125	3	3	40	NA	NA
Akala, E.	Drug Stability and Packaging	Ph.D.	17811	3	4	40	NA	NA
Akala, E.	Pharmaceutical Compounding Lab	Pharm. D.	87771	1	90	3	27	NA
Akala, E.	Graduate Research	Ph.D.	17818	6	3	9	252	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	80318	3	1	NA	153	NA

SCHOOL OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2007 - 2008

Faculty Name	Course Title	Course Level	CRN	Credit	Number Enrolled	Total Lecture Hours Taught	Total Lab Hours	Total Clinical Hours
SCHOOL/DIVISION								
Akala, E. O.	Pharmaceutics	Pharm. D.	16216	4	66	35	NA	NA
Akala, E. O.	Principles of Drug	Ph.D.	16922	3	2	35	NA	NA

	Formulation							
Akala, E. O.	NIH Grant Proposal Writing	Ph.D.	87722	1	4	24	NA	NA
Akala, E. O.	Seminar in Pharmaceutical Sciences	Ph.D.	85720	2	4	15	NA	NA
Akala, E.	Introduction to Pharmacy	Pharm. D.	86688	2	62	6	NA	NA
Akala, E.	Pharm. Care I	Pharm. D.	86690	3	62	14	NA	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	13369	3	1	NA	153	NA
Akala, E.	Pharmaceutical Sciences Laboratory	Pharm. D.	16219	3	60	3	27	NA
Akala, E.	Advances in Drug Delivery Systems	Ph.D.	87125	3	3	40	NA	NA
Akala, E.	Drug Stability and Packaging	Ph.D.	17811	3	4	40	NA	NA
Akala, E.	Pharmaceutical Compounding Lab	Pharm. D.	87771	1	90	3	27	NA
Akala, E.	Graduate Research	Ph.D.	17818	6	3	9	252	NA
Akala, E.	Research	Ph.D.	17822	3	4	NA	153	NA

SCHOOL OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2008 - 2009

Faculty Name	Course Title	Course Level	CRN	Credit	Number Enrolled	Total Lecture Hours Taught	Total Lab Hours	Total Clinical Hours
SCHOOL/DIVISION								
Akala, E. O.	Pharmaceutics	Pharm. D.	16216	4	65	35	NA	NA
Akala, E. O.	Principles of Drug Formulation	Ph.D.	16922	3	4	35	NA	NA
Akala, E. O.	NIH Grant Proposal Writing	Ph.D.	87722	1	5	24	NA	NA
Akala, E. O.	Seminar in Pharmaceutical Sciences	Ph.D.	85720	2	4	15	NA	NA
Akala, E.	Introduction to Pharmacy	Pharm. D.	86688	2	67	6	NA	NA
Akala, E.	Pharm. Care I	Pharm. D.	86690	3	67	14	NA	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	13369	3	1	NA	158	NA
Akala, E.	Pharmaceutical Sciences Laboratory	Pharm. D.	16219	3	60	3	27	NA
Akala, E.	Advances in Drug Delivery Systems	Ph.D.	87125	3	4	40	NA	NA
Akala, E.	Drug Stability and Packaging	Ph.D.	17811	3	4	40	NA	NA
Akala, E.	Pharmaceutical	Pharm. D.	87771	1	90	3	27	NA

	Compounding Lab							
Akala, E.	Graduate Research	Ph.D.	17818	6	2	9	252	NA
Akala, E.	Nanotherapeutics	Ph.D.	17932	3	1	40	NA	NA
Akala, E.	Research	Ph.D.	17822	3	4	NA	158	NA

SCHOOL OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2009 - 2010

Faculty Name	Course Title	Course Level	CRN	Credit	Number Enrolled	Total Lecture Hours Taught	Total Lab Hours	Total Clinical Hours
SCHOOL/DIVISION								
Akala, E. O.	Pharmaceutics	Pharm. D.	16216	4	63	35	NA	NA
Akala, E. O.	Principles of Drug Formulation	Ph.D.	16922	3	1	35	NA	NA
Akala, E. O.	NIH Grant Proposal Writing	Ph.D.	87722	1	3	24	NA	NA
Akala, E. O.	Seminar in Pharmaceutical Sciences	Ph.D.	85720	2	4	15	NA	NA
Akala, E.	Introduction to Pharmacy	Pharm. D.	86688	2	62	6	NA	NA
Akala, E.	Pharm. Care I	Pharm. D.	86690	3	62	14	NA	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	13369	3	1	NA	158	NA
Akala, E.	Pharmaceutical Sciences Laboratory	Pharm. D.	16219	3	62	3	27	NA
Akala, E.	Advances in Drug Delivery Systems	Ph.D.	87125	3	2	40	NA	NA
Akala, E.	Drug Stability and Packaging	Ph.D.	17811	3	3	40	NA	NA

Akala, E.	Pharmaceutical Compounding Lab	Pharm. D.	87771	1	56	3	27	NA
Akala, E.	Graduate Research	Ph.D.	17818	6	3	9	252	NA
Akala, E.	Nanotherapeutics	Ph.D.	17932	3	1	40	NA	NA
Akala, E.	Research	Ph.D.	17822	3	4	NA	158	NA

SCHOOL OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2010 - 2011

Faculty Name	Course Title	Course Level	CRN	Credit	Number Enrolled	Total Lecture Hours Taught	Total Lab Hours	Total Clinical Hours
SCHOOL/DIVISION								
Akala, E. O.	Pharmaceutics	Pharm. D.	16216	4	59	35	NA	NA
Akala, E. O.	Principles of Drug Formulation	Ph.D.	16922	3	2	35	NA	NA
Akala, E. O.	NIH Grant Proposal Writing	Ph.D.	87722	1	2	24	NA	NA
Akala, E. O.	Seminar in Pharmaceutical Sciences	Ph.D.	85720	0	0	0	NA	NA
Akala, E.	Introduction to Pharmacy	Pharm. D.	86688	2	59	6	NA	NA
Akala, E.	Pharm. Care I	Pharm. D.	86690	3	59	14	NA	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	13369	3	1	NA	158	NA
Akala, E.	Pharmaceutical Sciences Laboratory	Pharm. D.	16219	3	62	3	27	NA
Akala, E.	Advances in Drug Delivery Systems	Ph.D.	87125	3	2	40	NA	NA

Akala, E.	Drug Stability and Packaging	Ph.D.	17811	3	1	40	NA	NA
Akala, E.	Pharmaceutical Compounding Lab	Pharm. D.	87771	1	55	3	27	NA
Akala, E.	Graduate Research	Ph.D.	17818	6	3	9	252	NA
Akala, E.	Nanotherapeutics	Ph.D.	17932	3	1	40	NA	NA
Akala, E.	Research	Ph.D.	17822	3	4	NA	158	NA

SCHOOL OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2011- 2012

Faculty Name	Course Title	Course Level	CRN	Credit	Number Enrolled	Total Lecture Hours Taught	Total Lab Hours	Total Clinical Hours
SCHOOL/DIVISION								
Akala, E. O.	Pharmaceutics	Pharm. D.	16216	4	49	35	NA	NA
Akala, E. O.	Principles of Drug Formulation	Ph.D.	16922	3	1	35	NA	NA
Akala, E. O.	NIH Grant Proposal Writing	Ph.D.	87722	1	2	24	NA	NA
Akala, E. O.	Seminar in Pharmaceutical Sciences	Ph.D.	85720	0	0	0	NA	NA
Akala, E.	Introduction to Pharmacy	Pharm. D.	86688	2	499	6	NA	NA
Akala, E.	Pharm. Care I	Pharm. D.	86690	3	49	14	NA	NA
Akala, E.	Research in Pharmaceutical Sciences	Pharm. D.	13369	3	2	NA	158	NA
Akala, E.	Pharmaceutical Sciences Laboratory	Pharm. D.	16219	3	49	3	27	NA
Akala, E.	Advances in Drug	Ph.D.	87125	3	2	40	NA	NA

	Delivery Systems							
Akala, E.	Drug Stability and Packaging	Ph.D.	17811	3	1	40	NA	NA
Akala, E.	Pharmaceutical Compounding Lab	Pharm. D.	87771	1	63	3	27	NA
Akala, E.	Graduate Research	Ph.D.	17818	6	3	9	252	NA
Akala, E.	Nanotherapeutics	Ph.D.	17932	3	1	40	NA	NA
Akala, E.	Research	Ph.D.	17822	3	4	NA	158	NA

COLLEGE OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2012- 2013

Name Of Course	YEAR	CREDIT HOURS	% CONTRIBUTION
Pharmaceutical Compounding (PHSC 336 87771 01) (Pharm.D.)	Fall 2012	3	31% (Coordinator)
Pharmaceutical Care 1(PHSC 86690-305-01) (Pharm.D.	Fall 2012	3	21 %
Introduction to Pharmacy (PHSC 86689-304-01) Pharm.D	Fall 2012	3	10 %
Biopharmaceutics (PHSC 87144-313-01 (Pharm.D.)	Fall 2012	2	14 %
Drug Stability and Packaging (PHSC 17811 714 01) (Ph.D.)	Spring 2013	2	100 % (Coordinator)
Advances in Drug Delivery Systems (PHSC 512 87125 01) (Ph.D.)	Fall 2012	3 (No Student)	100 %(Coordinator)
Principle of Drug Formulation (PHSC 16922-702-01) (Ph.D.)	Fall 2012	3 (2 Students)	100 % (Coordinator)

Nanotherapeutics (PHSC 17932 747 01) (Ph.D.)	Fall 2012	3 (No Student	100% (Coordinator)
Directed and Supervised Graduate Theses: Oluwaseun Ogunwuyi, Reema Puri, and Frank Ohwoavworhua	Fall 2012.	Oluwaseun Ogunwuyi;, Reema Puri, (Defended her Ph.D. thesis proposal) and Frank Ohwoavworhua	100 %
Directed and Supervised Postdoctoral Fellows	Fall 2012	Oleg Bolshakov, Ph.D.	100%
Dissertation course (PHSC 801 89488 04) (Ph.D.)	Fall 2012	3 (One student)	100 %
Research in Pharmaceutical Sciences (PHSC 401 88783 02) (Ph.D.)	Fall 2012	9 (Two students)	100 %
Research in Pharmaceutical Sciences(PHSC 401 88417 01) (Ph.D.)	Fall 2012	3 (One Student)	100 %
Pharmaceutics (PHSC 16216 307 01) (Pharm.D.)	Spring 2013	4	56 % (Coordinator)
Research in Pharmaceutical Sciences (PHSC 17822-603-05) (Ph.D.)	Spring 2013	6 (Two students)	100 % (Coordinator)
Research in Pharmaceutical Sciences (PHSC 17818-701-05) (Ph.D.)	Spring 2013	3 (Two students)	100 % (Coordinator)
Directed and Supervised Graduate	Spring 2013	Oluwaseun Ogunwuyi and Reema Puri	100 %

Theses: Oluwaseun Ogunwuyi, Reema Puri, and Frank Ohwoavworhua			
Research experience for Josephine Hill from Center of Science and Technology of Charles Herbert Flowers High School in Maryland	Fall 2012 and Spring 2013	Josephine Hill	100%
Howard University College of Pharmacy Center of Excellence Pharmacy Biomedical Preview Program 2012	Summer 2012	1	100% Coordinator

COLLEGE OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2013- 2014

Name Of Course	Year	Credit hours	% Contribution
Pharmaceutical Compounding (PHSC 336 87771 01) (Pharm.D.)	Fall 2013	3	31% (Coordinator)
Pharmaceutical Care 1(PHSC 86690-305-01) (Pharm.D.)	Fall 2013	3	21 %
Introduction to Pharmacy (PHSC 86689-304-01) Pharm.D	Fall 2013	3	10 %
Biopharmaceutics (PHSC 87144-313-01	Fall 2013	2	14 %

(Pharm.D.)			
Drug Stability and Packaging (PHSC 17811 714 01) (Ph.D.)	Spring 2014	No student	100 % (Coordinator)
Advances in Drug Delivery Systems (PHSC 512 87125 01) (Ph.D.)	Fall 2013	No Student	100 %(Coordinator)
Principle of Drug Formulation (PHSC 16922-702-01) (Ph.D.)	Spring 2014	1	100 % (Coordinator)
Nanotherapeutics (PHSC 17932 747 01) (Ph.D.)	Fall 2013	No Student)	100% (Coordinator)
Directed and Supervised Graduate Theses: Oluwaseun Ogunwuyi, Reema Puri, and Frank Ohwoavworhua	Fall & Spring 2013-2014.	Seun Ogunwuyi and, Reema Puri, (Defended their Ph.D. theses and graduated in May 2014)	100 %
Directed and Supervised Postdoctoral Fellows	Fall 2013	Oleg Bolshakov, Ph.D.	100%
Dissertation course (PHSC 801 89488 04) (Ph.D.)	Fall 2013	3 (One student)	100 %
Research in Pharmaceutical Sciences (PHSC 401 88783 02) (Ph.D.)	Fall 2013	9 (One student)	100 %
Research in Pharmaceutical Sciences (PHSC 401 88417 01) (Ph.D.)	Fall 2013	3 (Three Students)	100 %
Pharmaceutics (PHSC 16216 307 01)	Spring 2014	4 (Fifty nine Students)	56 % (Coordinator)

(Pharm.D.)			
Research in Pharmaceutical Sciences (PHSC 17822-603-05) (Ph.D.)	Spring 2014	6 (One student)	100 % (Coordinator)
Research in Pharmaceutical Sciences (PHSC 17818-701-05) (Ph.D.)	Spring 2014	3 (Three students)	100 % (Coordinator)
Howard University College of Pharmacy Center of Excellence Pharmacy Biomedical Preview Program 2014	Summer 2014	Coordinator	100% Coordinator
2014 Summer Support for Academic Training – Brazil Scientific Mobility Program.	Research Experience for Ms. Raiana Ribeiro Braz (Visiting Student from University of Brasilia)	May 19, 2014 to September 3, 2014	100% Coordinator

COLLEGE OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2014- 2015

Name Of Course	Year	Credit hours	% Contribution
Pharmaceutical	Fall 2014	3	31% (Coordinator)

Compounding (PHSC 336 87771 01) **(Pharm.D.)**			
Pharmaceutical Care 1(PHSC 86690-305-01) **(Pharm.D.)**	Fall 2014	3	21 %
Introduction to Pharmacy (PHSC 86689-304-01) **Pharm.D**	Fall 2014	3	10 %
Biopharmaceutics (PHSC 87144-313-01 **(Pharm.D.)**	Fall 2014	2	14 %
Drug Stability and Packaging (PHSC 17811 714 01) **(Ph.D.)**	Spring 2015	3 (One Student)	100 % (Coordinator)
Advances in Drug Delivery Systems (PHSC 512 87125 01) **(Ph.D.)**	Fall 2014	3 (One Student)	100 %(Coordinator)
Principle of Drug Formulation (PHSC 16922-702-01) **(Ph.D.)**	Spring 2015	3 (One Student)	100 % (Coordinator)
Nanotherapeutics (PHSC 17932 747 01**) (Ph.D.)**	Fall 2014	3 (No Student: not offered)	100% (Coordinator)
Directed and Supervised Graduate Ph.D. Thesis: Reema Puri, Ph.D.	Spring 2014.	Reema Puri, (Defended her Ph.D. thesis and graduated in 2014)	100 %
Directed and Supervised Postdoctoral Fellow	Summer - Fall 2014 (July 1 to September 15, 2014)	Reema Puri, Ph.D. ****Now a Scientist at Tris Pharma, Inc., New Jersey**	100%
Research in Pharmaceutical Sciences(PHSC 401	Fall 2014	3 (One Student)	100 %

88417 01) (Ph.D.)			
Grant Proposal Writing - 83225 - PHSC 703 - 01: Ph.D.	Fall 2014	1 (Two Students)	100 %
Research in Pharmaceutical Sciences (PHSC 401 88783 02) **(Ph.D.)**	Fall 2014	9 (No student)	100 %
***Pharmaceutics (PHSC 16216 307 01**) **(Pharm.D.)**	Spring 2015	4 (62 Students)	42 % (Coordinator)
Research in Pharmaceutical Sciences (PHSC 17818-701-05) **(Ph.D.)**	Spring 2015	3 (One Student)	100 % (Coordinator)
Howard University College of Pharmacy Center of Excellence Pharmacy Biomedical Preview Program 2014	**Summer 2014 (**July 7 – August 8, 2014)	1	100% Coordinator
Howard University College of Pharmacy Center of Excellence Research Experience (Faculty-Student Research) for **Pharm. D. Students**	Spring 2015: Ms Enaefe Ziregbe	February to May 2015	100% Coordinator

COLLEGE OF PHARMACY FACULTY TEACHING LOAD FOR THE ACADEMIC YEAR 2015-2016

Name Of Course	YEAR	CREDIT HOURS	% CONTRIBUTION

Pharmaceutical Compounding (PHSC 336 87771 01) **(Pharm.D.)**	Fall 2015	3	20%
Pharmaceutical Care 1(PHSC 86690-305-01) (Pharm.D.)	Fall 2015	3	21 %
Introduction to Pharmacy (PHSC 86689-304-01) **Pharm.D**	Fall 2015	3	10 %
Biopharmaceutics (PHSC 87144-313-01 **(Pharm.D.)**	Fall 2015	2	14 %
Drug Stability and Packaging (PHSC 17811 714 01) **(Ph.D.)**	Spring 2016 (Ph.D. Comprehensive Examination)	3	100 % (Coordinator)
Advances in Drug Delivery Systems (PHSC 512 87125 01) **(Ph.D.)**	Spring 2016 (Ph.D. Comprehensive Examination)	3	100 %(Coordinator)
Principle of Drug Formulation (PHSC 16922-702-01) **(Ph.D.)**	Spring 2016 (Ph.D. Comprehensive Examination)	3	100% (Coordinator)
Nanotherapeutics (PHSC 17932 747 01**) (Ph.D.)**	Fall 2015 (Course work) and Spring 2016 (Ph.D. Comprehensive Examination)	3	100% (Coordinator)
Directed and Supervised Postdoctoral Fellows	Summer - Fall 2015 and Spring 2016	Jingbo Wu, Ph.D. and Liang Zhang, Ph.D.	100%
Research in Pharmaceutical Sciences(PHSC 401 88417 01) (Ph.D.)	Fall 2015	3	100 %
Grant Proposal Writing - 83225 -	Fall 2015	3	100 %

PHSC 703 - 01: Ph.D.			
Research in Pharmaceutical Sciences (PHSC 401 88783 02) **(Ph.D.)**	Fall 2015	9	100 %
***Pharmaceutics (PHSC 16216 307 01**) **(Pharm.D.)**	Spring 2016	4	42 % (Coordinator)
Research in Pharmaceutical Sciences (PHSC 17818-701-05) **(Ph.D.)**	Spring 2016	3	100 % (Coordinator)
Howard University College of Pharmacy Center of Excellence Pharmacy Biomedical Preview Program 2015	**Summer 2014 (**July 7 – August 8, 2015)	1	100% Coordinator
2015 Summer Support for Academic Training – Brazil Scientific Mobility Program	Research Experience for Visiting Students from Brazil: a). Ms. Ully Garcia Dos Santos (Federal University of Parana, Brazil) b). Ms. Maryellen Camili Rezende (Federal University of Minas Gerais, Belo Horizonte, Brazil) c) Ms. Alessandra Josebel Bogo Madril (Universidade Federal de Pelotas,	Summer 2015	100% Coordinator

	Pelotas, Rio Grande do Sul, Brazil)		
Howard University College of Pharmacy Center of Excellence Research Experience (faculty-Student Research) for **Pharm. D. Students**	Fall 2015: Ms Enaefe Ziregbe	Fall 2015	100% Coordinator
Howard University National Work Force Diversity Faculty	Fall 2016: (1. Brandon Leon from University of Virginia) & 2. Alexus Williams from Savannah State University in Georgia)	Summer 2016	100% Coordinator
College of Pharmacy Center of Excellence (ACSEP undergraduate students exposure to research)	Okoro Maryland Female MD Brown Cameron Male MD Palmer Maya Female IL	Summer 2016	100% Coordinator

SUPERVISSION OF PHARM.D. STUDENTS' LABORATORY RESEARCH PROJECTS

(A)	Than, Du T.	Spring 1998
(B)	Sun, Hazel	Spring 1998
©	Johnson, Hausalynn H.	Spring 1999
(D)	Lazarre, Marjorie	Spring 1999
(E)	Chase, Victoria Y.	Spring 1999
(F)	Snowden, Anthony	Spring 2000
(G)	Emekalam, Anthony	Spring 2000

(H)	Njoku, Oluchi	Fall 2000 & Spring 2001
(I)	Uneze, Uloma	Spring 2001
(J)	Obidi, Azubuike	Summer 2001
(K)	Tanasarnsopon Pornruedee	Summer 2002
(L)	Esan, Toyin	Fall 2003
(M)	Sotola, Funmilayo	Fall 2003 & Spring 2004
(N)	Durotolu Elegbede	Spring 2004
(O)	Dorothy Suebang	Spring 2004
(P)	Celina Mlusu	Spring 2004
(Q)	Natanya M. Jennings	Spring 2004
(R)	Gabriel Adeniran	Spring 2005
(S)	Hakeem Abayomi	Summer 2005
(T)	Gregory Fakorede	Fall 2006
(U)	Janine Douglas	Spring 2007
(V)	Samuel Areh	Fall 2008 & Spring 2009
(W)	Angela Chung	Summer 2012
(X)	Enaefe Ziregbe	Spring & Fall 2015

SUPERVISSION OF HIGH SCHOOL AND COLLEGE STUDENTS' PROJECTS (SUMMER RESEARCH EXPERIENCE)

(A) Bianca Henny (Tilgham Houston TX 77209) Summer 2005 (Graduated from Howard University)

(B) Kenya Crawford (Capitol Heights, Maryland) Summer 2005 (Graduated from the University of Maryland, College Park)

(C) Omosalewa Adenikinju (Eleanor Roosevelt High School (Science & Technology Internship Program) 7601 Hanover Parkway, Greenbelt, MD 20720) October 2006 to May 2007, Now at The University of Florida (Pre-med Program**; Graduated as MD from NYU in May 2015**)

(D) Marika Walker (Eleanor Roosevelt High School (Science & Technology Internship Program) 7601 Hanover Parkway, Greenbelt, MD 20720) October 2006 to May 2007 (Graduated from the University of Marlyand, College Park)

(E) Harmony Uduhiri (Charles Herbert High School, Mitchellville, Maryland: Internship Fall 2011 and Spring 2012) (Graduated from Howard University)

(F) Josephine Hill, Charles Herbert High School, Mitchellville, Maryland: Internship Fall 2012 and Spring 2012) (Now at the University of Maryland).

(G) Precious Ohagwu, Associate of Arts (A.A), Pre-Pharmacy (2013-Present)

Prince George's Community College (PGCC) (Internship , August to December 2015)
(H).

FOURTH YEAR ROTATION IN THE PHARM. D. PROGRAM

Tanasarnsopon Pornruedee (One rotation in 2003).
Taye Ojifini (One rotation in 2004)
Hakeem Abayomi (One Rotation 2006)

SUPERVISION OF LEARDERSHIP ALLIANCE INSTITUTIONS STUDENTS

Samantha DeLoache (Claflin University) Summer 2002 (Graduated in Pharm. D. Program in the School of Pharmacy, University of South Carolina)

COLLABORATION ON NSF CAREER AWARD TO DR. CHUN WANG (DEPARTMENT OF BIOMEDICAL ENGINEERING, UNIVERSITY OF MINNESOTA).

Three undergraduate students from Howard University as recommended by Dr. Akala worked in Dr. Wang's Laboratory during the summer (June 1 to August 8).
Ali Malik, Biology, 2006
Melissa Burford, Biology/Chemistry, 2007
Carrington Howard, Biology/Chemistry, 2007
These summer students were sponsored through an NSF CAREER Award (grant number: BES 0547613, PI: Chun Wang, grant title: Biomimetic engineering of responsive biomaterials, 06/01/2006-05/31/2011). Dr Akala was a collaborator on the grant.

UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE COOPERATIVE EDUCATION PROGRAM

One student (Sandrine Valerie Batonga) spent one semester (January to May, 2010) synthesizing a degradable crosslinker for the fabrication of drug-loaded nanoparticles.

POSTDOCTORAL RESEARCH ASSOCIATE SUPERVISSION

(A) Wusheng Yin, Ph.D. (February 2000 to January 2001); now working in the industry (Indium Corporation of America, Clinton, New York)

(B) Yahia Lemmouchi, Ph.D. (March 2001 to February 2003) Now at the University of Aston, Birmingham, England
(C) Hui Wang , M.D., Ph.D. (September 2002 to August 2003), Now at Wuham University, China
(D) G. Pan, Ph.D. (February 2003 to August 2004), Now at Leigh University, PA
(E) D. Wu, Ph.D. (October 2003 to June 2004), Now at Wuham University, China
(F) Solomon Berhe, Ph.D. (September 2009 to January 2011)
(G) Oleg Bolshakov, Ph.D. (February 2012 to January, 2014. Now at South Ural State University, Russia)
(H) Jingbo Wu, Ph.D. (August 2015 – to date)
(I) Liang Zhang, Ph.D. (September 2015-to date)

SUPERVISSION OF STUDENT ORGANIZATIONS

(A) The Rho Chi Society (Beta Sigma Chapter): Chapter Advisor (May 2001 to date)
(B) 2003 Pharm.D. Class: Class Faculty Advisor (1999 to May 2003)

GRADUATE SUPERVISION

Before arrival at Howard University:

1. Adebayo, Sarafa: M. Sc. Pharmaceutics (1994) Obafemi Awolowo University, Ile-Ife

2. Ogunseitan, Bukunola: M. Sc. Pharmaceutics (1994) Obafemi Awolowo University, Ile-Ife

3. Oyewole, Ayodele: M. Sc. Pharmaceutics (1993) Obafemi Awolowo University, Ile-Ife

4. Oyegunju. Isiaka: M. Sc. Pharmaceutics (1992) Obafemi Awolowo University, Ile-Ife

At Howard University:

5. Elizabeth Alabi:	MS. Chemical Engineering (Thesis was Successfully Defended in July 2003 at t Howard University
6. Oluyomi Okunola	MS. Chemistry (Thesis was Successfully Defended in July 2004 at Howard University
7. Simeon Adesina	Ph.D. Pharmaceutical Sciences (Thesis was successfully defended in November 2010 at Howard University
8. Oluwaseun Ogunwuyi	Ph.D. Pharmaceutical Sciences (Thesis was successfully defended in September 2013) Howard University
9. Reema Puri	Ph.D. Pharmaceutical Sciences (Thesis was successfully defended in May 2014at Howard University

DISSERTATION MENTORSHIP (THESIS COMMITTEE MEMBERSHIP) AT HOWARD UNIVERSITY).

(1). Elizabeth Alabi, MS. Howard University (Graduated in 2003)
(2) Oluyomi Okunola, MS. Howard University (Graduated in 2004)
(3). Olusegun Okusanya, Ph.D. Howard University (Graduated in May 2008)
(4). Patrice Jackson, Ph.D. Howard University (Graduated in May 2008)
(5). Simeon Adesina, Ph.D. Howard University (Graduated in November 2010)
(6). Oluwaseun Ogunwuyi, Ph.D. Howard University (Graduated in September 2013)
(7). Reema Puri, Ph.D. Howard University (Graduated in May 2014)
(8). Kahli A. Smith, Ph.D. Howard University (Graduated in May 2015)

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E. O. Akala. "Biomedical Applications of Nanoparticles" Seminar in the Department of Biology, Howard University, February, 2004

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Emmanuel O. Akala, Oluyomi Okunola and Simeon Adesina: Developments in Nanoparticulate Drug Delivery Systems for Cancer Chemotherapy. 2nd Annual Howard University Nanotechnology Symposium: Biological & Pharmaceutical Break Out Session: Friday November 21, 2008

Akala E. O. and Okunola O. "Stealth Degradable Cross-linked Nanospheres for the Delivery of Bioactive Agents". Proceedings of the Fourteenth International Symposium on Recent Advances in Drug Delivery Systems, Utah USA pp.85-86, 2009

Emmanuel O. Akala "Effect of Packaging on Stability of Drug Products" Invited Presentation at the 2009 Annual Scientific Conference and Exposition, of the Nigerian Association of Pharmacist and Pharmaceutical Scientist, September 17-20, 2009: Conference Theme: Drug Development and Pharmaceutical Care in the 21st Century Bethesda North Marriott Hotel and Conference Center, 5701 Marinelli Road, Bethesda, MD 20852

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Oluwaseun O. Ogunwuyi, Simeon K. Adesina, **Emmanuel O. Akala**

"Development of Polyester Stealth Nanoparticles for Delivery of Bioactive Agents". Howard University Health Sciences Research Day, 2012

Reema Puri, Solomon Berhe, Sandrine-Valérie Batonga, **Emmanuel O. Akala. "**Studies on Acid-Labile Crosslinkers for The Development of pH-Sensitive Nanoparticles for Anticancer Drug Delivery". University Health Sciences Research Day, 2012

Oluwaseun O. Ogunwuyi, and **Emmanuel O. Akala.** "In Vitro Availability of Drug from Docetaxel-Loaded Poly-ε-Caprolactone Nanoparticles". Howard University Research Day, April 1, 2013

Reema Puri, Solomon Berhe, **Emmanuel O. Akala**. "pH-Responsive Polymeric Nanoparticles Fabricated By Dispersion Polymerization as a Platform for the Delivery of Anticancer Drugs" Presented at the Bauchet Diversity Conference Held at Yale University, April 19-20,2013. **** Ms. Reema Puri (from my laboratory) was elected a member of Edward Bauchet Graduate Honor Society**

Reema Puri, Solomon Berhe, Sandrine-Valérie Batonga, **Emmanuel O. Akala.** "Studies on Acid-Labile Crosslinkers for the Development of pH-Sensitive Nanoparticles for Anticancer Drug Delivery". University Health Sciences Research Day, 2013 ****Ms. Reema Puri (from my laboratory) won a prize for her presentation**

R. Puri and **E.O. Akala**. "pH-Responsive Polymeric Nanoparticles Fabricated by Dispersion Polymerization as a Platform for the Delivery of Anticancer Drugs" TechConnect World 2013 - Nanotech, Microtech, Biotech, Cleantech Joint 2013 Conferences TechConnect World taking place in National Harbor, Maryland, May 2013.

Oluwaseun O. Ogunwuyi, and **Emmanuel O. Akala** "The Development Of Stealth Poly-ε-Caprolactone Nanoparticles for the Delivery of Bioactive Agents" Techconnect World 2013 - Nanotech, Microtech, Biotech, Cleantech Joint 2013 Conferences Techconnect World Taking Place In National Harbor, Maryland, May 2013.

Oluwaseun O. Ogunwuyi, and **Emmanuel O. Akala** "Stealth Biodegradable Nanoparticles Fabricated by Dispersion Polymerization" 40th Annual Meeting & Exposition of the Controlled Release Society, July 21 - 24, 2013, in Honolulu, Hawaii, U.S.A

Emmanuel O. Akala and Simeon Adesina. "Synthesis, characterization, and biological activity of paclitaxel-loaded, poly(lactide)-based nanoparticles". Howard University Research day 2014 Page 5
(Simeon Adesina from my laboratory won a prize for the best presentation).

Reema Puri Simeon Adesina and **Emmanuel O. Akala**. "Cellular uptake and cytotoxicity studies of pH-responsive nanoparticles on PC3 and LNCap prostate cancer cell lines". Howard University Research day 2014 Page 46

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Emmanuel O. Akala, Simeon Adesina, Oluwaseun, Ogunwuyi (Oral Presentation by Emmanuel O. Akala): "Computer Optimization of Nanoparticle Fabrication for Cancer Chemotherapy". Howard University Research Symposium April 16, 2015 Page 7.

Yvonne Abbey, Reema Puri and **Emmanuel O. Akala:** "Synthesis and characterization of pH-sensitive crosslinker suitable for fabrication of nanoparticles". Presented at the 2015 American Association of Pharmaceutical Scientists Annual Meeting & Exposition, October 25-29, 2015, Orlando, Florida.

Emmanuel O. Akala: "Breast Cancer" An Invited Paper Presented on October 18, 2015 to Howard University College of Pharmacy, Kappa Epsilon Kappa Epsilon, Alpha Pi Chapter during breast cancer awareness Brunch.

Emmanuel O. Akala: Associate Provost Gary L. Harris invited me to participate in the 2015-2016 Howard University Teaching Assistant/Associate (TA) Training Institute on Friday, January 8, 2016. My presentation is entitled "Evaluating Science Writing Assignments".

Emmanuel O. Akala, Sergei Nakhai and Winston Anderson. Antiretroviral Drugs-Loaded Nanoparticles Fabricated by Dispersion Polymerization For GALT Targetable Drug Delivery System. Oral Presentation by Emmanuel O. Akala at Howard University Research Symposium April 14, 2016 Page 5.

Novel Nanotechnology Platforms for Breast Cancer Treatment. Presented at the Institute of Pharmaceutics and Biopharmaceutics Heinrich-Heine-University Duesseldorf, 2016 (Host: Prof. Dr. Joerg Breitkreutz (APV President & Director of the Institute).

Novel Nanotechnology Platform for HIV/AIDS Treatment. Presented at the Institute of Pharmaceutics and Biopharmaceutics Heinrich-Heine-University Duesseldorf, 2016 (Host: Prof. Dr. Joerg Breitkreutz (APV President & Director of the Institute).

Waters Corporation Workshop on Size Exclusion Chromatography for Biotherapeutics: Method Development, Optimization and Troubleshooting, Gaithersburg, MD June 16, 2016

Thesis/Dissertation

E. O Akala, "Modes of action of some peptide antibiotics". B. Pharm. Dissertation (1980), Obafemi Awolowo Univerisity, Ile-Ife, Nigeria.

E. O. Akala, "Assessment of cassava starch binder on granules and tablet properties". M.Sc. Thesis, (1983), University of Ife, Ile-Ife, Nigeria.

E. O. Akala, "Studies on photopolymerized polyHEMA hydrogels for drug delivery". Ph.D. Thesis, (1986), The University of Manchester, England.

UNIVERSITY COMMITTEES

College of Pharmacy

Member Continuing Education Committee, School of Pharmacy, Howard University (September 1998 to 2003)

Member Grievance Committee, School of Pharmacy, Howard University (May, 1999)

Chairman, Ad hoc Committee on Recruitment of Faculty for a Position in Pharmacokinetics in the Department of Pharmaceutical Sciences (1999 to 2000)

Co-Investigator in the one million dollars ($1,000,000) research grant of Dean Pedro J. Lecca, Ph.D. (NCRR/NIH Grant #1 C06 RR 14469-01 "Extramural Research Facilities Construction and Renovation of Third Floor in Chauncey Cooper Hall (Pharmacy Building), 2000. Supplemented by

$1,200,000 from the President of Howard University: H. Patrick Swygert, J.D.

Member, Search Committee for Recruitment and Records Officer, Office of Student Affairs, School of Pharmacy (May - June, 1999)

Faculty Representative to the American Association of Colleges of Pharmacy (AACP), September, 1998 to August, 1999

Member Graduate Studies and Research Committee, School of Pharmacy: 1998 and 1999; and 2001 to date

Member Transition Executive Committee, College of Pharmacy, Nursing and Allied Health Sciences: 1998

Member of the Executive Council, School of Pharmacy: 1999 - 2001

Member, Ad hoc Committee on Recruitment of Faculty for a Position in the Department of Clinical and Administrative Pharmacy Sciences (June, 2001 to June 2002)

Howard University Standing Committee of Faculty Senate on community relations, student and alumni affairs committee (2000-2002)

Member, Ad hoc Committee on Curriculum, School of Pharmacy (2001)

Member, Safety Committee, Department of Pharmaceutical Sciences (2000 to date)

Member, Grievance Committee, School of Pharmacy, Howard University (November, 2001)

Member, Curriculum and Instructional Resources Committee, School of Pharmacy, Howard University (August, 2002 to 2006)

Member, Financial Aid and Awards (2002-2004) and (2008- to 2010)

Member College-Wide Student Grievance Committee (2002 to 2006)

Member, Graduate Examination Committee for a Ph.D. Candidate in Pharmaceutical Sciences (Samuel A. Onyilofor 2000).

Member Graduate Faculty Admissions Committee, Department of Pharmaceutical Sciences, 2002 – to date

Member of Appointment and Promotion Committee of Howard University Graduate Faculty Standing Committees for 2004-2005 and 2008 – 2014.

Member, Admission Committee, School of Pharmacy, Howard University (August, 2002 to 2012) and Chair of the Admission Committee (2008 to 2012)

Member, Appointment, Promotion and Tenure Committee, College of Pharmacy, Howard University (August, 2003 to date)

Chair of the Standards for Physical Facilities and Professional Practice Subcommittee of The School of Pharmacy 2005-2006 (Self-Study for Reaccreditation)

NIH/NCRR 1 C06 RR 020608-01 renovation of ground and first floors of Chauncey I. Cooper Hall to house the Center for Drug Research and Development (CDRD). Principal Investigator: Dr. Pedro J. Lecca (the Dean of the College of Pharmacy, Nursing and Allied Health Sciences). Dr. Emmanuel O. Akala is the Co-Principal Investigator and the Program Director for the Center (I wrote the grant proposal). ($3,519,397.00: September 2004- June 30, 2009)

Search Advisory Committee for the Associate Dean of the School of Pharmacy, 2010

Search Advisory Committee for New Assistant Professors in the Department of Pharmaceutical Sciences, School of Pharmacy, 2010
Member, Assessment Committee, College of Pharmacy, 2008 – to 2014 College of Pharmacy APT Committee 2011-to date

Chair, Departmental APT committee (2015)

Member Departmental APT committee (2015 to date)

Member Graduate Admission Committee (2015 to date)

Member Financial Aid Committee(2015 to date)

Member Graduate Curriculum Committee (2015 to date)

Chair, Senior Award Committee, 2014, 2015, 2016

HU College of Pharmacy

Member College APT Committee (2015-2016)

Rho Chi (Beta Sigma Chapter) Faculty Advisor(2015 - 2016)

Howard University Rho Chi Chapter Achievements (2015-2016)
a Tutoring through the Howard University Center of Excellence (All Year)
b. Rho Chi Presents: Research Forum and Study Skills Workshop 2016
c. Members of The Rho Chi Society volunteered at each students' admission interview event throughout the year
d. The Rho Chi society was able to get a re-occurring column in the College of Pharmacy's publication: The Black Apothecary
e. NBC Health and Fitness Expo; January 9/10, 2016: Rho Chi members served as volunteers during the expo working with two separate organizations during the expo. Two volunteers worked alongside The American Diabetes Association to provide diabetes risk assessment screenings and provide diabetes prevention education. Three more members worked with The National Kidney Foundation to administer blood pressure screenings and provide information/education on kidney disease and kidney health.
f. Rho Chi Participation at The College of Pharmacy Orientation Week/Organization Fair for new students: August 20, 2015

g. Getting Ahead Seminar - September 10, 2015: The chapter held a seminar in collaboration with Phi Lambda Sigma, Leadership Society for first year students on how to make the most of their resources and get ahead in pharmacy school.
h. Rho Chi induction ceremony 04/14/2016
i. National Black HIV/AIDS Awareness Day; February 6, 2016: Three Rho Chi members volunteered at an HIV/AIDS awareness day event at a men's homeless shelter to provide education on HIV/AIDS prevention and treatment options/management
j. Nuclear Industry Summit; April 2, 2016: Two Rho Chi members were able to volunteer at the 2016 Nuclear Industry Summit held at the Washington, DC convention center.
k. Wellness Fair; April 23, 1016: Our chapter worked in collaboration with the Capitol City Pharmacy Medical Reserves Corp (CCPMRC) organization to hold the 2016 Wellness Fair.

(3). Member of the Assessment Committee.

University Academic Activities Outside The College Of Pharmacy

Howard University Collaborative Alcohol Research Center (CARC), Department of Pharmacology, College of Medicine. My project is "Polymeric delivery system for naltrexone for the treatment of alcoholism" (1999 to date).

Howard University Keck Center for the Design of Nanoscale Materials for Molecular Recognition. My project is "Nano-sized targetable and biorecognizable dendritic biomaterials". The president of Howard University received $750,000 from W.M. Keck Foundation and Supplemented it it with $250,000 in January 3, 2002

Proposed Howard University Center of Excellence in Research on the Role of Reactive Species in Biological Systems under the Auspices of Centers of Research Excellence in Science and Technology of the National Science Foundation (CREST). $5,000,000 for five years (P.I.: Dean Lecca) (My project: Studies on novel methods of presentation of antioxidant scavengers to cells and synthesis and antioxidant

scavenger properties of novel flavonoids) Submitted on November 15, 2001.

Member, Appointment and Promotion Committee of the Howard University Graduate School, 2007 to 2010.

Member of IAUC Committee, Howard University, 2011 to date

Member of the Search Committee for the Howard University Provost, , 2012

Member of the Search Committee for the Dean of the College of Pharmacy, 2012

Member of the Search Committee to Recruit Distinguished Scientist at Howard University, 2012

Chair of IAUC Committee, Howard University, 2015 to date

Member Howard University Health Sciences Research Day/Howard University Research Day. 2012 to date

Member of the HU Research Advisory Council, 2015

Principal Investigator in The Howard University Keck Center for the Design of Nanoscale Materials for Molecular Recognition (2001 to date)

Member of Howard University IACUC (2015-2016)

Chair of Howard University IACUC (April 2015 to date)
Member Howard University Interdisciplinary Building Committee for Equipment

Member Howard University Research Council 2015-till today

Member of the APT committee for the HU School of Nursing 2015-till today .

Member of the APT committee for HU College of Nursing and Allied Health Sciences 2015 till today.

Presented a paper "EVALUATING SCIENCE WRITING ASSIGNMENTS" at 2015-2016 Howard University Teaching Assistant/Associate (TA) Training Institute Organized by Howard University Graduate School January 8, 2016

ACTVITIES OUTSIDE HOWARD UNIVERSITY

Pharmacist on Call: Bioterrorism Preparedness and Response Plan (Government of the District of Columbia: The District of Columbia Department of Health and the Board of Pharmacy, April 2002 to date)

Liaison officer for the American Association of Nigerian Pharmacists (2001 to date)

Publicity Secretary of the American Association of Nigerian Pharmacists (2002)

Vice Chairman of the Board of Trustees of the Victory Christian Academy, The Redeemed Christian Church of God, Victory Temple, Bowie, Maryland (2002 to date)

Member of the Education Committee of the Controlled Release Society (2003-2006)

Collaboration on Targetable Nanoparticles for Drug Delivery and Imaging for Cancer Treatment (Emmanuel O. Akala, R. Ph., Ph.D., Center for Drug Research and Development, School of Pharmacy, Howard University and Jacek Capala, Ph.D., D.Sc., Head, Molecular Targeting Section, Radiation Oncology Branch, NCI/NIH)

Collaboration on Physical Characterization of Polymeric Nanoparticles for Biomedical Applications (Emmanuel O. Akala, R. Ph., Ph.D., Center

for Drug Research and Development, School of Pharmacy, Howard University and John A. Small, Ph.D. the Division Chief of the Surface and Microanalysis Science Division at the National Institute for Standards and Technology (NIST)

Member of the Advisory Group of the Center for Pharmaceutical Advancement and Training of the United States Pharmacopeia (Appointed by Dr. Roger L. Williams (Chair, Council of Experts, United States Pharmacopeia)) 2013 to date

Member of a USP (United States Pharmacopeia) Expert Committee (the General Chapters-Dosage Forms USP's Expert Committee for the 2015-2020 cycle). USP Expert Committees are responsible for developing and revising USP standards that comprise its compendia: the USP and the NF, USP Compounding Compendium, Herbal Medicines Compendium, Dietary Supplements Compendium, and Food Chemicals Codex (2015)

Member USP Dosage Form Chapter - 1151 Pharmaceutical Dosage Forms Subcommittee 2015-2016

Member USP Joint Subcommittee on nanotechnology 2015-2016

Member USP Dosage Form General Chapter- 788 Particulate Matters in Injection subcommittee