# CURRICULUM VITAE

**Benedict C. Okeke**
Distinguished Research Professor and Professor of Industrial and Environmental Microbiology,
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## EDUCATION

Ph.D. Bioscience and Biotechnology 1994,
University of Strathclyde, Glasgow, Scotland.
M.S. Food Science & Microbiology 1989,
University of Strathclyde, Glasgow, Scotland.

Ph.D. Industrial Microbiology 1991,
University of Nigeria, Nsukka, Nigeria.
B.S. Microbiology (First class honors) 1985,
University of Nigeria, Nsukka, Nigeria.

## DISSERTATIONS FOR DEGREES

1. Biotransformation of pentachlorophenol (PCP) by *Lentinula edodes*: a potential organism for large-scale soil bioremediation (Thesis submitted in fulfillment of the requirements for Ph.D. in Bioscience and Biotechnology, 1994). Advisors: John E. Smith, D.Sc.; Alistair Paterson, Ph.D. and Irene Watson-Craik, Ph.D.
2. A study of the cellulolytic and xylanolytic enzymes of a thermophilic *Streptomyces* species (Dissertation project for M.S. in Food Science and Microbiology, 1989). Advisor: Alistair Paterson, Ph.D.
3. Evaluation of the Cellulolytic and Xylanolytic Enzymes of *Arthrographis sp.* and *Sporotrichum pruinosum* for the Saccharification of Lignocellulosic Waste (Thesis submitted in fulfillment of the requirements for Ph.D. in Industrial Microbiology, 1991). Advisor: Samuel K.C. Obi, Ph.D.
4. Isolation and partial characterization of thermostable amylolytic enzymes of *Thermoactinomyces* species (Dissertation project for B.S. in Microbiology, 1985). Advisor: Samuel K.C. Obi, Ph.D.
5. The role of group B streptococci in diseases (Seminar project for B.S. in Microbiology, 1985). Advisor: Samuel K.C. Obi, Ph.D.

## RESEARCH AWARD

Alumni Professor (Auburn University at Montgomery) 2016.
Ida Belle Young Endowed Professorship (Auburn University at Montgomery) 2013.
Excellence in Funded Research (Auburn University at Montgomery) 2011.
Distinguished Research Professor (Auburn University at Montgomery) 2009.

## PROFESSIONAL POSITIONS AND EXPERIENCE

1. Professor (August 2011 to present, Auburn University at Montgomery).
2. Associate Professor (August 2009 to July 2011, Auburn University at Montgomery).
3. Assistant Professor (August 2005 to July 2009, Auburn University at Montgomery).
4. Postdoctoral Researcher (June 2000 to August 2005, University of California, Riverside).
5. Postdoctoral Researcher (October 1998 to June 2000, Laboratory of Microbial Engineering

and Technology, Gifu University, Japan).
6. Postdoctoral Researcher (April 1996 to September 1998, International Center for Genetic Engineering and Biotechnology, ICGEB, Trieste, Italy).
7. Senior Lecturer (October 1994 to March 1998, Nnamdi Azikiwe University, Awka, Nigeria). (On research study leave from April 1996 to March 1998 at the International Center for Genetic Engineering and Biotechnology, Italy).
8. Lecturer II (October 1990 to September 1994, Nnamdi Azikiwe University, Awka, Nigeria). (On study leave from October 1991 to September 1994, at the University of Strathclyde, Glasgow, Scotland, UK).
9. Assistant Lecturer (October 1989 to September 1990, Nnamdi Azikiwe University, Awka, Nigeria).

**INDUSTRY/CONSULTING EXPERIENCE**

1. AMEC Geomatrix, Inc., Rancho Cordova, California.
2. Calcon Systems, Inc. San Ramon, California.
3. Mih, Ecomat, Inc. Belaire Court, Danville, California.
4. Technova Corporation, Lansing, Michigan.
5. Center for Environmental Microbiology, Inc., Riverside, CA (July 2002 to July 2005), Consulting Microbiologist/Bioremediation Specialist.
6. ISCA Technologies, Inc., Riverside, CA, (July 2002 to July 2005), Consulting Microbiologist.
7. United Nations Development Program (UNDP) (February 1997 and February 1998), Consultant.
8. BioLogic Environmental Limited, Glasgow, Scotland, UK (May to August 1994), Microbiologist.

**LEADERSHIP POSITIONS**

Director: Bioprocessing and Biofuel Research Lab, Department of Biology, AUM (2015-present)
Principal Investigator: Bioprocessing and Biofuel Research Lab, AUM (2011-2015)

**CURRENT COURSES TAUGHT**

1. Environmental Microbiology Lecture/Lab – Graduate (Fall/alternate).
2. Environmental Microbiology Lecture/Lab – Undergraduate (Fall/alternate).
3. Industrial Microbiology Lecture/Lab – Graduate (Fall/alternate).
4. Industrial Microbiology Lecture/Lab – Undergraduate (Fall/alternate).
5. General Microbiology Lecture/Lab (Spring/Summer).
6. Principles of Biology I Lecture (Fall/Spring).
7. Directed Research Graduate (Fall/Spring/Summer).
8. Directed Research Undergraduate (Fall/Spring/Summer).

**RESEARCH INTERESTS**

1. Bioconversion of lignocelluloses to sugars and bioethanol.
2. Third generation microbial biofuel from yeasts.
3. Biosensors for abiotic and biotic environmental pollutants.
4. Bioremediation of recalcitrant and toxic molecules.
5. Microbial enzymes, protein purification and expression.
6. Genetic engineering of microorganisms.
7. Development of nucleic acid based technologies for tracking microorganisms.
8. Identification of environmentally important microorganisms by 16S rRNA gene sequencing.
9. Bacteriological quality and safety of water resources.
10. Production of cholesterol-lowering microbial metabolites using corn ethanol waste.

**FUNDED RESEARCH GRANTS AND RELATED ACTIVITIES**

1. Co-Principal Investigator (June 1, 2018 to May 31, 2019). Towards Viable Biofuel Production from Lignocellulosic Biomass: Producing Crude Enzymes in House for Biomass Hydrolysis. USDA Southeastern Sun Grant Regional Grants. Amount: **$47,999.00** PI: Yi Wang**.**
2. Co-Principal Investigator (AUM; October 1 2016-September 30 2021). Collaborative Research: Making to Advance Knowledge, Excellence, and Recognition in STEM (MAKERS)." Total sub-award amount: **$583,446.17**; Auburn University, Auburn University at Montgomery and Southern Union State Community College https://cws.auburn.edu/apspi/pm/makers. PI: Jenda Overtoun, Auburn University. Total amount for the three institutions: **$2,034,382**.
3. Co-Principal Investigator (AUM: September 1, 2017 - August 31, 2022). The Greater Alabama Black Belt Region (GABBR) LSAMP. NSF Amount: AUM Years 1-5: **$372,046**; and Senior Personnel in the Alliance for GABBR-LSAMP (PI: Jenda Overtoun,). Amount $5,000,000).
4. Principal Investigator (November 2010 – December 2015): Farm Deployable Microbial Bioreactor for Fuel Ethanol Production. US Department of Energy. Amount: **$1,000,000.00.**
5. Principal Investigator (2012-2014): Purification and Screening of Fungal Beta-Glucosidase for Transglycosylation of Glucose to Oligosaccharides. Amount: **$3902**.
6. Summer Research Grant (2015): Development of an NSF RUI proposal: "Biochemical, Molecular and Functional Characterization of Biomass Hydrolyzing Enzymes of *Trichoderma* species SG2 for Biofuel Production. Amount: 10% of faculty 9 months salary.
7. Principal Investigator (2014-2016): Production and Characterization of Ligninolytic Enzymes from New Strains of *Trichoderma*. AUM Research Council Faculty Grant in Aid (GIA). Amount: **$2,205**.
8. Co-Principal Investigator (2012-2014): Growth-Promotion and Biocontrol of Fungal Pathogens in Peanut (*Arachis hypogaea*). AUM Research Council Faculty Grant in Aid. Amount**: $1500**.
9. Summer Research Grant (2014): "Development of Lignocellulose Biodiesel from Biomass Saccharides Using Native and Genetically Engineered Microorganisms" proposal preparation. Amount: 20% of faculty 9 months salary**.**
10. Co-Principal Investigator (2013): Research Equipment Grant to Purchase Omni Bead Ruptor 24 for "Oleaginous Yeast Fermentation of Pentoses Released from Acid Pretreatment of Lignocellulosic Feedstock to Promote Cellulosic Ethanol Feasibility". Amount: **$16,250**.
11. Co-Principal Investigator (September 2010 to August 2011): Collaborative Research: Assessing the Effects of Gulf Oil Spill on Mobility of Toxic Metals and Microbial Activities in Alabama Coastal Wetlands. US National Science Foundation. Amount: **$130,690.00.**
12. Principal Investigator (September 2010 to August 2011): Collaborative Research: Assessing the Effects of Gulf Oil Spill on Mobility of Toxic Metals and Microbial Activities in Alabama Coastal Wetlands. US National Science Foundation (AUM Part - Microbial Activities). Amount: **$40,000.00.**
13. Principal Investigator (2012): A Proposal to Purchase a Laboratory Lyophilizer (Freeze Dryer). Ida Belle Young Research Award, Auburn University Montgomery. Amount **$13,000.**
14. Principal Investigator: Cholesterol-Lowering Animal Feed by Red Yeast Fermentation of Corn Grain Stillage. Auburn University Montgomery Research Equipment Improvement Grant in Aid. Amount: **$4,650.**
15. Principal Investigator (November 2010 - indefinite): A Proposal to Purchase a Molecular Imager Gel Doc XR+ System. Auburn University Montgomery Research Equipment Improvement Grant in Aid. Amount: **$11,000.00.**
16. Co-Investigator (June 2009 to January 31, 2011): Development of an Inexpensive, Rapid and Highly Sensitive Perchlorate Nanobiosensor. Technova Corporations "US Department of Agriculture". Amount: **$80, 000.00**.

17. Principal Investigator sub-recipient (June 2009 to January 31, 2011): Development of an Inexpensive, Rapid and Highly Sensitive Perchlorate Nanobiosensor. Technova Corporation-US Department of Agriculture. Amount: **$20, 000.00**.
18. Principal Investigator: (October 2009 to September, 2011). A proposal to hire a postdoctoral research specialist to conduct research and support preparation of federal competitive grants on agents of water and food-borne diseases and the public health impact. Amount **$94,105.44 (Year 1:** $45,052.72, **Year 2:** $45,052.72).
19. Co-investigator/Collaborator (August 2008 to August 2009): "Improved Conversion of Cellulose Waste to Ethanol Using a Dual Bioreactor System" Technova Corporation "US Department of Energy" award. Amount: **$374,695**
20. Co-investigator/Collaborator (August 2009 to August 2011): "Improved Conversion of Cellulose Waste to Ethanol Using a Dual Bioreactor System" Technova Corporation's "US Department of Energy" grant award. Amount: **$375,256.**
21. Principal Investigator (October 2007 to indefinite): Proposal to purchase a thermal cycler for DNA amplification and analysis" Auburn Montgomery research equipment grant in aid program. Amount **$5,099.00**
22. Principal Co-Investigator (October 2007 to September 2008): Presence and Abundance of Pathogenic Fecal Indicator Bacteria in Drinking Water Wells Located in Several Black Belt Counties. Alabama Commission of Higher Education. Amount: **$ 25,000.00**.
23. Co-investigator/Collaborator: (June 2007 to March 2008): "Improved Conversion of Cellulose Waste to Ethanol Using a Dual Bioreactor System" Technova Corporation-US Department of Energy Amount**: $100, 000.00**
24. Principal Investigator (June 2007 to March 2008): "Improved Conversion of Cellulose Waste to Ethanol Using a Dual Bioreactor System" Technova Corporation-US Department of Energy Amount**: $30, 000.00**
25. Principal Investigator: (October 2006 to September 2008) Microbial Conversion of Wood Waste and Grass to Sugars for Fuel Ethanol Production. AUM Faculty Grant in Aid (GIA). Amount: **$3,800**.
26. Principal Investigator (June 2007 to indefinite): Simultaneous Reduction of Perchlorate and Chromium by Microbial Enrichment Consortia. EcoMat Inc., CA. Supplementary funding Amount: **$2,000**.
27. Co-Investigator: A "Proposal for the Purchase of a Tube Luminometer". P.I.: P. Haddix. AUM Research Equipment Improvement Grant Program. Amount: $8,000
28. Principal Investigator: Simultaneous Reduction of Perchlorate and Chromium by Microbial Enrichment Consortia. EcoMat Inc., CA. Amount: **$5,500**.
29. Principal Investigator: Construction of a Chlorite Biosensor for Monitoring *In Situ* Perchlorate Bioreduction in Water. AUM New Faculty Grant in Aid. Amount: **$4,000**.
30. Principal Investigator: AUM matching grant for AUM GIA ("Construction of a Chlorite Biosensor for Monitoring *In Situ* Perchlorate Bioreduction in Water"). Amount: **$4,000**.
31. Collaborator: Matching Grant for a 4300L DNA Analysis System (LI-COR Biosciences). PI: Dr. Tom Denton, Professor, AUM. Amount: $75,000.00, AUM matching: $38,000.00.
32. Co-Principal Investigator: Development of Biosensors for Real-time Analysis of Perchlorate in Water. University of California Water Resources Program. Amount: **$60,000.00**.
33. Co-Principal Investigator: Biosensors for Real-time Analysis of Perchlorate in Water. University of California Toxic Substances Program. Amount: **$50,000.00**.
34. Co-Investigator: Perchlorate Removal in Ground Water using Immobilized Cell-free, Purified and Recombinant Perchlorate Reductases from the Perchlorate Respiring Bacterium, Perc1ace. University of California Water Resources Program. Amount: **$58,000.00**.

35. Project Microbiologist: Dynamic Suspended Bed Bioreactor for Removal of Perchlorate. Office of Technology Transfer and Commercialization, CSU San Bernardino. Amount $100,000. P.I: M. Losi
36. Project Microbiologist: Bioremediation of Perchlorate in Water Using Dynamic Suspended Bed Reactor (DSBR) Technology. National Defense Center for Environmental Excellence CTC/LDC. Amount **$100,000.** P.I. M. Losi.

**Unfunded extramural grant efforts**

1. Principal Investigator (2016): Engineered Non-Model Yeast for the Production of Next-Generation Biodiesel from Biomass Saccharides. NSF. Amount requested: $204,000. **Unfunded.**
2. Co-Principal Investigator: Assessing chemical and biological transformation of oils and associated compounds in Louisiana coastal salt marsh ecosystems. Gulf of Mexico Reserach Initiative (GOMRI 2015-V-442). Amount: $847,385; AUM ($200,013.00). PI: Ming-Kuo Lee, Geosciences, AU. **Unfunded**
3. Principal Investigator: Collaborative Research: Development of a Novel, Multiplexed Nano-Biosensor for Real Time Detection of Food and Water-Borne Pathogens Using Electrical Impedance Spectroscopy. NSF. Amount requested $225,000.00. **Unfunded.**
4. Principal Investigator (2015): Collaborative Research: Development of Lignocellulose Biodiesel from Biomass Saccharides Using Native and Genetically Engineered Microorganisms. NSF $240,183.00. **Unfunded**
5. Lead Principal Investigator (2014): REU Site Collaborative Research: Biofuel, Biocatalysis, Genomics and Feedstock Agronomy. In collaboration with Alabama State University, AL and Alcorn State University, MS. Submitted to the National Science Foundation: NSF $344,735. **Unfunded**
6. Principal Investigator (2013): Principal Investigator: REU Site: Biocatalysis and Biofuel. NSF Amount: $309,907. **Unfunded**
7. Principal Investigator/Collaborative Co. P.I. (2011): WSC-Category 1 Collaborative Research: Complex Hydrologic and Socio-Ecological Systems Interactions in Alabama Coastal Watersheds: A Multi-Scale, Integrative Approach". NSF Amount: $546,549; AUM $30,000. **Unfunded**
8. Principal Investigator (2012): Production of Natural Flavor Compounds by Secondary Fermentation of Corn Ethanol Co-Products for Ethanol Industry Sustainability. Ray C. Anderson Foundation. Amount: $59,858. **Unfunded**
9. Principal Investigator (2012): Development of Nutraceutically-Fortified Corn Whole Stillage Animal Feed of the Production of Low-Cholesterol animals and Animal Products. Alabama Innovation Awards. Amount: $126,980.00. **Unfunded**
10. Principal Investigator (2011): Secondary fermentation of corn ethanol co-products for production of natural flavor compounds. NSF Amount $200.00. **Unfunded**
11. Co-Principal Investigator/AUM P.I. (2016). RII Track-2 FEC: Advancing Integrative Assessment of Food-Energy-Water Security Linked to Climate Change in Alabama-Mississippi Gulf Coast. Total Amount $4,000,000.00. AUM portion ($272,000.00). PI: Ming-Kuo Lee, Geosciences, AU. **Unfunded**

**POSTDOCTORAL RESEARCH STAFF**

1. Dr. Carma Cook, Ph.D. – Development of biosensors.
2. Dr. Ananda Nanjundaswamy, Ph.D. – Bioprocessing and biofuel.

**STUDENT RESEARCH STAFF**

1. Yasi Deravi
2. Andrew Prescott
3. Shanticia Peaks
4. Jamie Bishop
5. Leah Sawyer
6. Sara J. Jones
7. Laymon, Jeffery
8. Oji Charles
9. Gunter Victoria
10. Christopher Starr
11. Andrew Paulk
12. Christiane Ingram
13. Sharla Rafferty
14. Kelsey Rogers
15. Hydenia Boswell

**DISSERTATION AND RESEARCH SUPERVISION**

1. Co-guided the research of Robson Andreazza (visiting Ph.D. research student, Federal University of Rio Grande Sul, Porto Alegre, Brazil) in Auburn University at Montgomery.
2. Co-guided the research of Simone Pieniz (MS student, Federal University of Rio Grande Sul, Porto Alegre, Brazil) in Auburn University at Montgomery.
3. Guided **6 graduate** directed research students at Auburn University Montgomery (Sarah P. Sharman, J. Elizabeth Odom, Malanie D. Hamlin, Becky M. Hardy, Amal Alenzi and Christian Ingram).
4. Guided **28 undergraduate** research students at Auburn University Montgomery (Paul Yeo, Patrick Thomase, Kelsey Rodgers, Sharla Rafferty, Andrew Paulk, Christiane Ingram, Christopher Starr, Claudiea Kinnion, Anika Robinson, Shanticia Peaks, Jonathan McFarland, Amanda Fuller, Jamie Bishop, Andrew Prescott, Leah Sawyer, Yasi Deravi, Iesha Barnes, Shakena Crenshaw, Jeffery Laymon, Charles Oji, Pius Nwobi, Shaquita Wright, Jeremy Browning, Victoria Gunter, Stephanie Davis, Stephanie Russel, Natasha Bozeman, and Roy Houchin III).
5. Guided **5 undergraduate research** students at University of California Riverside (Jessica Bautista, Lena Lam, Jenny Ngo, Nancy Mei-Shan Huang and Tomomi Yamazaki).
6. Co-directed doctoral dissertation projects at Gifu University, Japan (Chang Y.C. Ph.D.) and University of California, Riverside/University of Agriculture, Faisalabad, (Siddique, T., Ph.D.)
7. Guided projects of postdoctoral research scientists.
8. Supervised several bioremediation/microbiology mini-projects at the Center for Environmental Microbiology (CEM), Riverside, California, CA.
9. Co-guided 2 postgraduate diploma dissertation projects (Samule C. Nwufo and C.C. Chibuko at Nnamdi Azikiwe University, Nigeria).
10. Guided 8 undergraduate B.S. dissertation projects at Nnamdi Azikiwe University, Nigeria.

**EXTERNAL EXAMINER FOR DOCTORAL THESIS**
Served as external examiner for thesis of 21 international doctoral students.

**PATENTS GRANTED**
1. An Efficient Process for Producing Saccharides and Ethanol from a Biomass Feedstock. Patent # US 9,617,574 B2, issued 04/11/17. Inventors: **Benedict Okeke** and Ananda Nanjundaswamy.
2. Nutraceutical Compositions Produced from Co-Products of Corn or Milo Ethanol Fermentation and Methods of Making and Using Thereof. Patent # US 9,168,272 B2, issued 10/27/15. Inventors: Ananda Nanjundaswamy and **Benedict Okeke.**
3. Process for Whole Cell Saccharification of Lignocelluloses to Sugars Using a Dual Bioreactor System. Patent # US 8,143,040 B2, issued 03/27/12. Inventor(s): Jue Lu and **Benedict Okeke**.

**SCHOLARLY PUBLICATIONS**

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|---|---|
| 1. International refereed journal papers | 60 |
| 2. International non-technical papers | 5 |
| 3. Conference abstracts | >90 |
| 4. Books | 2 |
| 5. Book related publications | 2 |
| 5. Book chapters | 3 |
| 6. Research papers in review | 1 |
| 7. Patents | 3 |

**Books and Related Publications**
1. Okafor, N. and **Okeke, B.C**. (2018). Modern Industrial Microbiology and Biotechnology. CRC Press. 466 pages; ISBN 9781351377485
2. **Okeke, B.C**., Lynn, J., Rogers, B., Kilpatrick, J., Ragland, P., Thomson, S., Adams, C. and R. Owens, J.R. (2011). *Principles of Biology* 1 *Laboratory Manual* (8th edition of ISBN: 978-0-88725-349-2). Hunter Textbooks Inc., NC, USA..
3. **Okeke, Benedict C**.; Lynn, Janice; Adams, Caroline and Owens, James R. (2007). *Laboratory Manual for Principles of Biology* 1. 7th edition. Hunter Textbooks Inc., NC, USA. ISBN: 978-088725-3324.
4. Ragland, Penny L, **Okeke, Benedict C**, Lynn Janice, Kilpatrick Joanne and Thomson Sue (2008). Resource Book for Laboratory Manual for Principles of Biology 1. *Setup Guide and Solutions*. Hunter Textbooks Inc., NC, USA.
5. **Okeke, Benedict C**. (2007). Power Point Lectures for Modern Industrial Microbiology and Biotechnology (**CD**). Science Publishers, Endfield, NH

**Patent publications**
1. **Okeke Benedict** and Nanjundaswamy Ananda (2017). An Efficient Process for Producing Saccharides and Ethanol from a Biomass Feedstock. United States Patents Publication, US 9,617,574 B2, pages. 1-33.
2. Nanjundaswamy Ananda and **Okeke Benedict** (2015). Nutraceutical Compositions Produced from Co-Products of Corn or Milo Ethanol Fermentation and Methods of Making and Using Thereof. United States Patents Publication, US 9,168,272 B2, pp. 1-11.
3. Jue Lu and **Benedict Okeke** (2012). Process for Whole Cell Saccharification of Lignocelluloses to Sugars Using a Dual Bioreactor System. United States Patents Publication US 8,143,040 B2, pp 1-12

**Peer Reviewed Journal Articles**

1. **Okeke BC**, Hall RW, Nanjundaswamy A, Thomson MS, Deravi Y, Sawyer L, Prescott A. (2015). Selection and molecular characterization of cellulolytic-xylanolytic fungi from surface soil-biomass mixtures from Black Belt sites. *Microbiological Research* 175:24-33.
2. **Okeke B.C** (2014). Cellulolytic and xylanolytic potential of high β-glucosidase producing *Trichoderma* from decaying biomass. *Applied Biochemistry and Biotechnology* 174: 1581-1598.
3. Pieniz S**,** Andreazza R**, Okeke B.C.**, Camargo, FAO, Brandelli A (2014). Assessment of beneficial properties of *Enterococcus* strains. *Journal of Food Processing and Preservation* 38: 665–675.
4. Andreazza R; **Okeke B.C.**; Pieniz S.; Bento F.M.; Camargo F.A. (2013). Biosorption and bioreduction of copper from different copper compounds in aqueous solution. *Biological Trace Elements Research* 152: 411-416.
5. Natter, M., Keevan, J., Keimowitz, A. S., **Okeke**, **B.C.,** Wang, Y., Son, A. and Lee, M.-K. (2012). Level and Degradation of Deepwater Horizon Spilled Oil in Coastal Marsh Sediments and Pore-Water. *Environmental Science and Technology*, 46: 5744-5755.
6. Andreazza R, **Okeke B.C.**, Pieniz S, Bortolon L, Lambais MR, Camargo FA (2012). Effects of stimulation of copper bioleaching on microbial community in vineyard soil and copper mining waste. *Biological Trace Elements Research.* 146:124-33.
7. Andreazza R, **Okeke BC**, Pieniz S, Camargo FA (2012). Characterization of copper-resistant rhizosphere bacteria from *Avena sativa* and *Plantago lanceolata* for copper bioreduction and biosorption. *Biological Trace Elements Research* 146: 107-115.
8. **Okeke B.C**. and Lu J (2011). Characterization of a Defined Cellulolytic and Xylanolytic Bacterial Consortium for Bioprocessing of Cellulose and Hemicelluloses. *Applied Biochemistry and Biotechnology* 163: 869-881.
9. **Okeke, B.C**.; Thomson, MS; Moss, E (2011). Occurrence, molecular characterization and antibiogram of water quality indicator bacteria in river water serving a water treatment plant. *Science of the Total Environment* 409: 4979-4985.
10. Pieniz S., **Okeke B.C*.,** Andreazza R. and Brandelli A. (2011). Evaluation of selenite bioremoval from liquid culture by *Enterococcus* species. *Microbiological Research* 166:176-85.
11. Andreazza R, **Okeke B.C.**, Pieniz S, Brandelli A, Lambais MR, Camargo FA. (2011). Bioreduction of Cu(II) by Cell-Free Copper Reductase from a Copper Resistant Pseudomonas sp. NA. *Biological Trace Elements Research.*
12. Andreazza, R., Pieniz, S., **Okeke, B.C**. and Camargo, F.A.O (2011). Evaluation of copper resistant bacteria from vineyard soils and mining waste for copper biosorption. *Brazilian Journal of Microbiology* 42: 66-74.
13. Andreazza, R., **Okeke, B.C.**, Lambais, M.R., Bortolon, L., Bastos de Melo, G.W., Camargo, FAO (2010). Bacterial Stimulation of Copper Phytoaccumulation by Bioaugmentation with Rhizosphere Bacteria. *Chemosphere*: 81: 1149-1154.
14. Andreazza R, Pieniz S, Wolf L, Lee MK, Camargo FA, **Okeke B.C.***(2010). Characterization of copper bioreduction and biosorption by a highly copper resistant bacterium isolated from copper-contaminated vineyard soil. *Science of the Total Environment* 408: 1501-1507.
15. Jacques RJ, **Okeke B.C.**, Bento FM, Peralba MC, Camargo FA (2009). Improved enrichment and isolation of polycyclic aromatic hydrocarbons (PAH)-degrading microorganisms in soil using anthracene as a model PAH. *Current Microbiology* 58: 628-634.
16. **Okeke, B.C. (2008).** Bioremoval of hexavalent chromium by a salt tolerant bacterium, *Exigobacterium sp*. GS1. *Journal of Industrial Microbiology and Biotechnology* 35: 1571-1579.
17. **Okeke, B. C**., Laymon, J., Oji, C., Crenshaw S. and Oji, C. (2008). Environmental and Kinetic Parameters for Cr(VI) Bioreduction by a Bacterial Monoculture Purified from Cr(VI) Resistant Consortium. *Biological Trace Elements Research* 123: 229-241

18. Jacques, R.J.S., **Okeke B.C**., Bento, F.M, Teixeira, A.S., Peralba, M.C.R. and Camargo, Flavio A.O. (2008). Microbial consortium bioaugmentation of a polycyclic aromatic hydrocarbons contaminated soil. *Bioresource Technology* 99: 2637-2643.
19. Zhang, Y., **Okeke, B.C**., and Frankenberger, W.T. (2008): Bacterial Reduction of Selenate to Elemental Selenium Utilising Molasses as Carbon Source. *Bioresource Technol*ogy 99: 1267-73.
20. **Okeke B**. C., M. Guangyu, Q. Cheng, M. E. Losi and W. T. Frankenberger (2007). Development of a Perchlorate Reductase Based Biosensor for Real Time Analysis of Perchlorate in Water. *Journal Microbiology Methodology* 68: 69-75.
21. Jacques, R.J.S., **Okeke B.C**., Bento, F.M., Peralba, M.C.R. and Camargo, Flavio A.O. (2007). Characterization of a Polycyclic Aromatic Hydrocarbon–Degrading Microbial Consortium from a Petrochemical Sludge Landfarming Site. *Bioremediation Journal*, 11:1–11
22. Siddique, T., Zhang, Y., **Okeke, B.C**., and Frankenberger, W.T. (2006): Characterization of sediment bacteria involved in selenium reduction. *Bioresource Technology* 1041-1049.
23. **Okeke, B.C.** and Frankenberger, W.T. (2005): Use of Starch and Potato Peel Waste for Perchlorate Bioreduction in Water. *Science of Total Environment* 347, 35-35.
24. Camargo F.A.O, **Okeke, B.C**, Bento, F.M, and Frankenberger, W.T. (2005): Diversity of Chromium-Resistant Bacteria Isolated from Soils Contaminated with Dichromate *Applied Soil Ecology* 29, 193-202.
25. Siddique, T., **Okeke, B.C.,** Zhang, Y., Arshad, M. and Frankenberger, W.T. (2005): Bacterial diversity in selenium reduction of agricultural drainage water amended with rice straw. *Journal Environmental Quality* 34, 217-26
26. Bento, F.M, Camargo F.A.O**, Okeke, B.C** and Frankenberger, W.T. (2005): Comparative Bioremediation of Soils Contaminated with Diesel Oil by Natural Attenuation, Biostimulation and Bioaugmentation. *Bioresource Technology* 96, 1049-55.
27. Bento, F.M, Camargo F.A.O, **Okeke, B.C** and Frankenberger, W.T. (2005): Diversity of Biosurfactant Producing Microorganisms Isolated from Soils Contaminated with Diesel Oil. *Microbiological Research* 160, 249-255.
28. Camargo F.A.O, **Okeke, B.C,** Bento, F.M, and Frankenberger, W.T. (2004): Hexavalent chromium reduction by immobilized cells and cell-free extract of *Bacillus* sp. ES 29. *Bioremediation Journal* 8, 23-30.
29. Camargo F.A.O, Bento, F.M, **Okeke, B.C.** and Frankenberger, W.T. (2004): Hexavalent chromium reduction by an actinomycete, *Arthrobacter crystallopoietes* ES 32. *Biological Trace Elements Research* 94, 179-191.
30. Bento, F.M, Camargo F.A.O, **Okeke, B.C**, and W.T Frankenberger (2003). Bioremediation of soil contaminated by diesel oil. *Braz. J. Microbiol.* vol.34 http://dx.doi.org/10.1590/S1517-83822003000500022
31. **Okeke, B.C.** and Frankenberger, W.T. (2003): Molecular analysis of a perchlorate reductase from a novel perchlorate respiring bacterium, perc1ace. *Microbiological Research* 158, 337-344.
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**Conference Proceedings**

1. **Okeke, B.C.**, Chang, Y.C., Hatsu, M. and Takamizawa, K. (2000): Molecular characterization of a tetrachloroethylene dehalogenase from *Clostridium bifermentans* DPH-1. In: *Fifth International Symposium on Environmental Biotechnology*, Imanaka, T. et al. (eds.) ISEB 2000, Kyoto, pp. 134-137.
2. **Okeke, B.C**., Chang, Y.C., Hatsu, M. and Takamizawa K (2000): Dechlorination of tetrachloroethylene by a membrane-associated dehalogenase from *Clostridium bifermentans* DPH-1. In: *Bioremediation and Phytoremediation of Chlorinated and Recalcitrant Compounds*, Wickramanayake G. B, Gavaskar A.R., Alleman B.C. and Magar V.S., eds. Battelle press, Ohio, pp. 197-203.
3. **Okeke, B.C**. (1999): Bioremediation: a novel biotechnology for the detoxification of environmental pollutants. In: *Biotechnology for Development in Africa*. Okafor N., Okereke G., Miambi E. and Odunfa S. eds. OCHUMBA Press, Nigeria, pp. 135-147. (Talk)
4. **Okeke, B.C**. (1999): Detoxification of a highly chlorinated pesticide (pentachlorophenol) by *Lentinula* species and *Phanerochaete chrysosporium* In: *Biotechnology for Development in Africa.* Okafor, N., Okereke, G., Miambi, E. and Odunfa, S. eds. OCHUMBA Press, Nigeria, pp. 213-224.
5. **Okeke, B.C**., Smith, J.E., Paterson, A. and Watson-Craik, I.A. (1994): Bioremediation of pentachlorophenol (PCP) contaminated soil with `shiitake' mushroom fungus (*Lentinula edodes*). Proceedings of the *Second International Symposium on Environmental Biotechnology*, Institution of Chemical Engineers, UK, pp. 16-18. (Talk).

**Presentations (conferences/abstracts with students and other presentations).**

1. Felix S. Toussaint; Ghadeer M. Jan; Danielle C. Warren; Tiger Truong; and **Benedict Okeke** (2018). Screening and Molecular Characterization of Thermo-Tolerant Soil Bacteria for the Production of Proteolytic, Amylolytic, and Lipolytic Enzymes. Annual Biomedical Research Conference for Minority Students (ABRCMS). November 14-17, Indianopolis.

2. Christiane Ingram, Becky Hardy and **Benedict Okeke** (2018). Comparative production of amylase, cellulase and xylanase in lignocellulose medium amended with starch. Society for Industrial Microbiology and Biotechnology. August 12–16, 2018, Chicago, IL
3. Sahinoglu, Hakan; Thomase, Patrick; Daniels, Nyeshia; Brasher, Shani; Ingram, Christiane, and **Okeke, Benedict**. Screening of Soil Microbial Isolates for Antibiotic Activity American Society For Microbiology (ASM) Microbe 2018, Atlanta, June 7-11
4. Jan, Ghadeer, Warren, C. Danielle, Toussaint, Felix, Butler, Rakia, Truong, Thinh, Mary White and Ashley Middleton and **Benedict Okeke** (2018).. Molecular Characterization of Proteolytic, Amylolytic and Lipolytic (PAL) Bacteria. The Auburn University at Montgomery College of Arts and Sciences Undergraduate Research Symposium. April 13, 2018. Poster, Faculty mentor, Okeke, Benedict
5. Toussaint, Felix; Warren, Danielle; Jan, Ghadeer, Truong, Thinh and Middleton, Ashley and **Benedict Okeke** (2018). Screening of thermo-tolerant soil bacteria for production of protease, amylase and lipase. The Auburn University at Montgomery College of Arts and Sciences Undergraduate Research Symposium. April 13, 2018. Poster, Faculty mentor, Okeke, Benedict
6. Toussaint, Felix (2018) and **Benedict Okeke** (2018).. Development of microbial enzyme and whole-cell cleaning products: An overview and initial studies. The Auburn University at Montgomery College of Arts and Sciences Undergraduate Research Symposium. April 13, 2018. Talk. Faculty mentor, Okeke, Benedict
7. Toussaint, Felix S.; Truong, Thinh; Butler, Rakia; White, Mary and Walker, Jasmine and **Benedict Okeke** (2018). (2018). An Overview and Initial studies of Microbial-Based Cleaning Products. MAKERS/LSAMP Joint Annual Conference, Tuskegee University, April 15, 2018. Talk by Toussaint, Felix S.
8. Toussaint, Felix S.; Truong, Thinh; Butler, Rakia; White, Mary and Walker, Jasmine and **Benedict Okeke** (2018). (2018). Selection of Proteolytic, Amylolytic and Lipolytic Soil Bacteria for Production of Cleaning Products. MAKERS/LSAMP Joint Annual Conference, Tuskegee University, April 15, 2018.
9. Benedict Okeke*, Ananda Nanjundaswamy, Christiane Ingram, Shanticia Peaks, Andrew Paulk (2017) Trichoderma species SG2: A potential organism for production of mixtures of enzymes for biomass saccharification. International Union of Microbiological Societies 7 (IUMS), 17-21 July 2017, Singapore. Talk delivered by Benedict Okeke, in the Workshop Session for Applied Microbiology and Biotechnology.
10. Okeke, Benedict (2017). Simultaneous saccharification and fermentation of cellulosic biomass using whole culture and filtered culture enzymes of Trichoderma SG2. This is Research Faculty Symposium, Auburn University, September 16, 2017.
11. **Okeke** Benedict and Christiane Ingram (2016). Highlights of Biofuel Research at AUM (Talk). College of Arts and Sciences Advisory Board Meeting. Presented March 10, 2016.
12. Yeo Paul, Daniels Nyeshia, Thomase Patrick, Ingram Christiane and **Okeke** Benedict (2016). Simultaneous Saccharification and Fermentation of Switchgrass and Waste Paper to Bioethanol. Auburn University This is Research Student Symposium.
13. Sahinoglu, Hakan; Thomase, Patrick; Daniels, Nyeshia; Brasher, Shani; Ingram, Christiane, and **Okeke**, Benedict (2016). Screening of Soil Microbial Isolates for Antibiotic Activity. Auburn University This is Research Student Symposium.
14. Daniels Nyeshia, Yeo Paul, Thomase Patrick, Ingram Christiane, and **Okeke** Benedict (2016). Biomass Conversion to Bioethanol by Simultaneous Saccharification and Fermentation. AUM Undergraduate Research Symposium.
15. Brasher, Shani; Sahinoglu, Hakan; Daniels, Nyeshia; Thomase, Patrick; Ingram, Christiane, and **Okeke**, Benedict (2016). Evaluation of Lake Martin Water Samples and Treated Water for Indicator Bacteria. AUM Undergraduate Research Symposium.

16. Sahinoglu, Hakan; Thomase, Patrick; Daniels, Nyeshia; Brasher, Shani; Ingram, Christiane, and **Okeke**, Benedict. Selection and Molecular Characterization of Antibiotic Producing Microbial Isolates from Soil. AUM Undergraduate Research Symposium.
17. **Okeke, B.C.;** Ingram, C.; Paulk A. and Rafferty, S. (2015). Biomass Conversion by a High Beta-Glucosidase Producing *Trichoderma* species SG2 (Talk delivered by **Okeke, B.C.**). The 76th Annual Meeting of the Association of Southeastern Biologists (ASB), Chattanooga TN, April 1–4, 2015.
18. Nanjundaswamy, A., Vadlani P. and **Okeke, B.C.** (2015). Plain Feed to Platinum Feed: Nutraceutically Enriched Coproducts the Way Forward. International Fuel Ethanol Workshop and Expo during June 1-4 at Minneapolis, MN. (Talk by Nanjundaswamy, A.)
19. **Okeke, B.C.;** Ingram, C. and Hardy, B. (2015). Study on Saccharification of Switchgrass and Expired Bread by Fungal Cellulolytic-Xylanolytic-Amylolytic Enzymes. American Society for Microbiology, 114th General Meeting, May 30-June 2, 2014, New Orleans, Louisiana.
20. Ingram, C.; Hardy, B. and **Okeke, B.C.** (2015). Influence of starch on production of lignocellulolytic and amylolytic enzymes for biomass saccharification. This is Research: Student Symposium, Auburn University, April 2015
21. Thomase, P.; Rodgers, K.; Ingram, C., Lee, M-K. and **Okeke, B.C.** (2015). Selection and molecular characterization of stable sulfate reducing bacteria for bioremediation of metals and metalloids. This is Research: Student Symposium, Auburn University, April 2015.
22. Ingram, C.; Rodgers, K.; Thomase, P. and **Okeke, B.C.** (2015). Production of Mixtures of Fungal Amylase, Cellulase and Xylanase in Lignocellulose Medium Amended with Starch. AUM Undergraduate Research Symposium 2015, April 12 Montgomery, AL
23. Thomase, P.; Rodgers, K.; Ingram, C. and **Okeke, B.C.** (2015). DNA-Based Characterization of Sulfate Reducing Bacteria for Bioremoval of Heavy Metals. AUM Undergraduate Research Symposium 2015, April 12 Montgomery, AL.
24. **Okeke, Benedict**; Rafferty, Sharla; Ingram, Christiane and Nanjundaswamy, Ananda (2014): Co-saccharification of lignocellulose biomass in conjunction with starch by cellulolytic-xylanolytic-amylolytic enzymes complex of *Trichoderma* sp. SG2. Society for Industrial Microbiology & Biotechnology Annual Meeting and Exhibition 2013 (July 19-24, 2014). Presented July 20, 2014.
25. Rafferty, Sharla; Paulk, Andrew; Ingram, Christiane and **Okeke Benedict** (2014): Influence of Metal Ions on Biomass Saccharification by Cellulolytic-Xylanolytic Culture Filtrate of a New *Trichoderma* sp. SG2. American Society for Microbiology, 113th General Meeting, May 17-20, 2014, Boston, Massachusetts. Presented May 20, 2014
26. Ingram, Christiane; Rafferty, Sharla; Paulk, Andrew and **Okeke Benedict** (2014): Co-production of cellulolytic-xylanolytic-amylolytic enzymes for biofuel production. Auburn Research Week 2014, April 15-17, Auburn, AL. Presented April 16, 2014.
27. Rafferty, Sharla; Paulk, Andrew; Ingram, Christiane **and Okeke Benedict** (2014): Effects of Metal Ions on Cellulolytic-Xylanolytic Enzymes of a New *Trichoderma* species and Lignocellulose Biomass Conversion. Auburn Research Week 2014, April 15-17, Auburn, AL. Presented April 16, 2014.
28. Ingram, Christiane; Rafferty, Sharla; Paulk, Andrew and **Okeke Benedict** (2014): Simultaneous Production of Cellulolytic-Xylanolytic-Amylolytic Enzymes for Saccharification of Biomass Mixtures. AUM Sciences Undergraduate Research Symposium 2014, April 16, Montgomery, AL.
29. Rafferty, Sharla;Paulk, Andrew; Ingram, Christiane and **Okeke Benedict** (2014): Metal Ion Stimulated Saccharification of Biomass by Cellulolytic-Xylanolytic Enzymes Complex of *Trichoderma* species SG2. AUM Sciences Undergraduate Research Symposium 2014, April 16, Montgomery, AL.
30. Nanjundaswamy, A. K. and **Okeke, B.C.*** (2013). Development of hypo-cholesterolemic Dried Distillers Grain with Solubles (DDGS) by *Monascus purpureus* secondary fementation." Society

for Industrial Microbiology & Biotechnology Annual Meeting and Exhibition 2013 (August 11-15, 2013). Presented August 11, 2013.

31. Nanjundaswamy A, Starr C and **Okeke B.C.*** (2013). Processing of Biomass-Saccharifying Enzymes by Sand Filtration for 'Farm Deployable Microbial Bioreactor' Laboratory Model, American Society for Microbiology, 113th General Meeting, May 18-21, 2013, Denver, Colorado. Presented May 19, 2013
32. Nanjundaswamy A and **Okeke B.C.** (2013). Development of Fungal Crude Enzyme: Commercial Enzyme Cocktail for Potential Cost Reduction of Cellulosic Biomass Saccharification. 29th Annual Fuel Ethanol Workshop, June 10-13, 2013, St. Louis, MO. Presented June 12, 2013.
33. Nanjundaswamy A and Okeke B.C. Potential cost reduction of cellulosic biomass saccharification by fungal crude enzyme–commercial enzyme cocktail. Clean Technology Conference and Expo, Washington, DC, May 12-16, 2013. Presented May 14, 2013
34. Paulk, A., Nanjundaswamy, A., Okeke, B.C. (2013). Liquid chromatography-mass spectrometry (LC-MS) profiling of oligosaccharide intermediates in lignocellulosic biomass saccharification. Auburn Research Week 2013, April 1-4, Auburn, AL. Presented April 2, 2013.
35. Starr, C., Nanjundaswamy, A., Okeke, B.C. (2013). Enhanced feedstock saccharification by crude fungal enzyme concentrated by tangential flow filtration, Auburn Research Week 2013, April 1-4, Auburn, AL. Presented April 2, 2013.
36. Starr, C., Nanjundaswamy, A., Okeke, B.C. (2013). Single-step saccharification of switchgrass is more efficient than repeated saccharification in cellulosic biofuel production, Auburn Research Week 2013, April 1-4, Auburn, AL. Presented April 2, 2013.
37. Paulk, A., Nanjundaswamy, A., Okeke, B.C. (2013). Lignocellulosic oligosaccharide characterization using liquid chromatography-mass spectrometry (LC-MS). AUM Sciences Undergraduate Research Symposium 2013, April 12 Montgomery, AL. Presented April 12, 2013.
38. Starr, C., Nanjundaswamy, A., Okeke, B.C. (2013). Tangential flow filtration effectively concentrates crude fungal enzyme used in feedstock saccharification. AUM Sciences Undergraduate Research Symposium 2013, April 12 Montgomery, AL. Presented April 12, 2013.
39. Starr, C., Nanjundaswamy, A., Okeke, B.C. (2013). Comparison of single-step and repeated-saccharification of switchgrass in cellulosic biofuel production. AUM Sciences Undergraduate Research Symposium 2013, April 12 Montgomery, AL. Presented April 12, 2013.
40. **Okeke B.C.**, Nanjundaswamy A, Deravi Y, Peaks S, Prescott A and Hall, R. (2012). Biomass Saccharification by Cellulolytic-Xylanolytic Enzymes Complex of Newly Isolated Fungal Strains. The 62nd Annual Meeting of the Society for Industrial Microbiology and Biotechnology (August 12-16, 2012, Washington, DC).
41. Nanjundaswamy A, Hall, R. and **Okeke B.C.*** (2012). Lipid Production by Red Yeast Fermentation of Peanut Meal for Microbial Biodiesel. The 112th General Meeting of the American Society for Microbiology, 112th General Meeting (June 16 - 19, 2012, San Francisco CA).
42. **Okeke, B.C.,** Prescott, A., Deravi, Y., Bishop, J., Peaks, S., Sawyer, L., Nanjundaswamy, A. and Hall, R. (2012). Screening of xylose-utilizing yeasts and bacteria for xylose fermentation to ethanol. Auburn University Research Week, Auburn, AL, April 2-4, 2012.
43. Nanjundaswamy A and **Okeke B.C.** (2012) 'All-in-one' bioprocessing strategy for cellulosic ethanol production: a laboratory model bioreactor study. International Biomass Conference and Expo, Denver, Colorado, April 16-19, 2012.
44. Deravi Y, Prescott A, Peaks S, Sawyer L, Bishop J, Nanjundaswamy, A, Hall, R. and **Okeke B.C.** (2012). Production dynamics of cellulolytic-xylanolytic enzymes complex of *Fusarium oxysporum* FS22A and *Trichoderma amazonicum* FS5A. Auburn University at Montgomery (AUM) Undergraduate Research, Symposium. April 6, 2012.

45. Deravi Y, Prescott A, Bishop J, Peaks S and **Okeke B.C.** (2012). Molecular Analysis of Microbial Communities in Sediments from Pristine and Gulf Oil Polluted Sites. Auburn University at Montgomery (AUM) Undergraduate Research, Symposium.
46. Deravi, Y., Prescott A, Natter M, Keevan J, Keimowitz; AR, Lee MK, **Okeke, B.C**. (2012). Sulfate and Iron Reducing Microbial Activities in Pristine and Gulf Oil Polluted Coastal Wetlands. Auburn University Research Week, Auburn, AL, April 2-4, 2012.
47. **Okeke, B.C.** (2011): Farm Deployable Microbial Bioreactor for Fuel Ethanol Production. Auburn University Board of Trustees, February 14, 2011, Montgomery, AL.
48. Keimowitz, A., Lee, M.-K., Saunders, J. A., Lamberg, C. H., **Okeke, B.C**, Natter, M., Keevan, J., Lewis, D., and Chung, H., 2011, After the spill: metal cycling in Gulf coastal wetlands, The Geological Society of America (GSA), Annual Meeting, 9-12 October, Minneapolis, Minnesota.
49. Natter, M., Keevan, J. Lee, M.-K., Keimowitz, A., Sarvda, C., Son, A., Okeke, B.C., and Wang, Y., 2011. Fate and transport of organic contaminants in coastal marsh sediments resulting from the 2010 Gulf oil spill, American Geophysical Union (AGU) Annual Fall Meeting, San Francisco, CA.
50. Keevan, J. Natter, M., Lee, M.-K., Keimowitz, A., Okeke, B.C, Sarvda, C., and Saunders, J.A., 2011, Biogeochemical and hydrological controls on fate and distribution of trace metals in oiled Gulf salt marshes, American Geophysical Union (AGU) Annual Fall Meeting, San Francisco, CA.
51. **Okeke, B.C**.*, Deravi Y., Prescott A., Lee, M.K., Natter, M., Keevan, J. and Keimowitz, A.S. (2011). Evaluation of Sulfate Reducing and Iron Reducing Bacteria in Pristine and Gulf Oil Polluted Coastal Wetlands in Alabama and Mississippi. American Society for Microbiology, General Meeting (New Orleans, Louisiana, May 21-24, 2011).
52. Nanjundaswamy, A. and **Okeke, B.C.*** (2011). Optimization of culture parameters for production of cellulolytic and xylanolytic enzymes from a new *Trichoderma* species SG2. Society for Industrial Microbiology, Annual Meeting (New Orleans, Louisiana, July 24-28).
53. Okeke , B.C.*, Deravi, Y., Prescott, A., Bishop, J., Sawyer, L., Peaks, S., Nanjundaswamy, A. and Hall, R (2011). Screening of xylose-utilizing yeasts from soil-decaying biomass composite samples and fruits for ethanol production. Society for Industrial Microbiology, Annual Meeting (New Orleans, Louisiana, July 24-28).
54. Prescott A., Deravi, Y., Peaks, S., Bishop, J., Sawyer, L., Hall, R and Okeke, B.C.* (2011). Screening of xylose-utilizing yeast isolates for ethanol production from biomass. Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
55. Deravi, Y., Prescott, Y. and **Okeke, B.C.*** (2011). Enumeration of sulfate reducing bacteria from Gulf oil polluted sites. Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
56. Deravi, Y., Prescott, A., Peaks, S., Bishop, J., Sawyer, L., Hall, R. and **Okeke, B.C.* (2011)**. Isolation of Plant Fiber-Degrading Fungi for Conversion of Lignocelluloses to Sugars. Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
57. Bishop, Jamie, Peaks, S. and **Okeke, B.C.*** (2011). Bacteriological Examination of Autauga Creek and Cooter's Pond in Prattville, Alabama. Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
58. Peaks S., Deravi Y., Cook C., Thomson S. and **Okeke, B.C.*** (2011). Immunoelectrochemical Biosensor for Rapid Detection of *Salmonella.* Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
59. **Okeke, B.C.*;** Deravi, Y. and Lu, J (2010). Cellulolytic and Xylanolytic Enzymes Potential of Fungi from Soil Beneath Decaying Biomass. *Society for Industrial Microbiology 60th Annual Meeting* (August 1-5, 2010, San Francisco CA).
60. Pieniz, S; **Okeke, B.C.***; Andreazza, R. and Brandelli, A. (2010). Bioremoval of Se(lV) from Aqueous Medium: a potential strategy for production of probiotic Se-enriched lactic acid bacteria

biomass. *Society for Industrial Microbiology 60th Annual Meeting* (August 1-5, 2010, San Francisco CA).

61. Bishop, J; Peaks, ST and **Okeke, BC**[*] (2010). Occurrence of *Enterococcus* species and *Escherichia coli* in Communal Recreational Water. *96th Annual Southeastern Branch American Society for Microbiology Conference*. November 5-6, 2010, Renaissance Montgomery Hotel & Spa at the Convention Center, Montgomery.
62. Fuller, AL, McFarland, JT, Bishop, J; Peaks, ST, and **Okeke, BC**[*] (2010). Microbial Population Dynamics During Storage of Cabbage and Spinach by Refrigeration. *Auburn University Montgomery, Undergraduate Research Symposium*, April 2, 2010, Montgomery, AL, (Poster).
63. Bishop, J; McFarland, JT, Peaks, ST, Fuller, AL and **Okeke, BC**[*] (2010). Assessment of Recreational Water for Coliforms and Fecal Indicator Bacteria. *Auburn University Montgomery, Undergraduate Research Symposium*, April 2, 2010, Montgomery, AL, (Poster).
64. Peaks, ST, McFarland, JT, Fuller, AL, Bishop, J and **Okeke, BC**[*] (2010). Search for Anti-Staphylococcus Antibiotic Substances from Microorganisms and Vegetal Matter. *Auburn University Montgomery, Undergraduate Research Symposium*, April 2, 2010, Montgomery, AL, (Poster).
65. Deravi, Y and **Okeke, BC**[*] (2010). Analysis of Cellulolytic and Xylanolytic Enzymes for Sugar Production. *Auburn University Montgomery, Undergraduate Research Symposium*, April 2, 2010, Montgomery, AL, (Poster).
66. **Okeke, BC**[*] and Jue, Lu (2009). Effect of Nutrient Augmentation, pH and Temperature on Lignocellulose Saccharification by a Microbial Consortium. *Abstracts of the 108th general meeting of the American Society for Microbiology* (May 17 -21, 2009, Philadelphia, PA), (Poster).
67. Andreazza, R, **B. C. Okeke**, M. Giacometti, S. Pieniz, F. A. O. Camargo; (2009). Characterization of copper resistant bacteria from vineyard soil and mining waste. *Abstracts of the 108th general meeting of the American Society for Microbiology* (May 17 -21, 2009, Philadelphia, PA), (Poster).
68. Pieniz, S., **B. C. Okeke**, R. Andreazza, A. Brandelli, F. A. Camargo (2009). Antimicrobial and antioxidant activities of lactic acid bacteria from meat and dairy products. *Abstracts of the 108th general meeting of the American Society for Microbiology* (May 17 -21, 2009, Philadelphia, PA), (Poster).
69. **Okeke*, B C,** Sue Thomson, Stephanie A Russell, Stefanie O Davis, Victoria Gunter, Natasha N. Bozeman and Elica Moss (2009). Seasonal Appraisal of Presence or Absence of Fecal Indicator Bacteria in Water Before and After Treatment. 86th Annual Meeting of the Alabama Academy of Science, March 25th to March 27th 2009, The University of West Alabama, Livingston, AL. *The Journal of Alabama Academy of Science*, **80 (2):** 112-113 (Talk).
70. Barnes, IL., Thomson, S., Andreazza, R and **Okeke, BC*** Molecular Analysis and Antibiogram of Coliforms Isolated from River Water Serving a Water Treatment Plant. 86th Annual Meeting of the Alabama Academy of Science, March 25th to March 27th 2009, The University of West Alabama, Livingston, AL. *The Journal of Alabama Academy of Science*, **80 (2):** 122 (Poster).
71. Barnes, IL., Thomson S. and **Okeke, BC*** (2009). Antibiogram of coliform bacteria isolated from river water. Auburn University Montgomery, Undergraduate Research Symposium, April 3, 2009, Montgomery, AL, (Poster).
72. **Okeke B.C**. (2008). Whole-cell saccharification of lignocelluloses. 85th Annual Meeting of the Alabama Academy of Science, March 19th to March 22nd 2008, Samford University, Birmingham, AL. *The Journal of Alabama Academy of Science*, **79 (2):** 87 (Talk).
73. **Okeke B.C.*,** Moss, E.M., Russell, S.A., Bozeman, N, Gunter, V. and Davis, S. (2008). Bacteriological evaluation of drinking water sources of a black belt county. Abstracts of the Society for Industrial Microbiology Annual Meeting, August 10-14, 2008. San Diego, CA, Page 137, (Poster).

74. **Okeke B.C.,** Lu J. and Lyamon, J. (2008). Development of a defined bacterial consortium for improved bioconversion of lignocellulose waste. Abstracts of the 108th general meeting of the American Society for Microbiology (June 1 – 5, 2008, Boston, MA), (Poster).
75. Russel S.A., Bozeman N., Gunter V. and **Okeke B.C**.* (2008). Analysis of water quality indicator bacteria before and after treatment. Auburn University Montgomery, Undergraduate Research Symposium, April 11, 2008, Montgomery, AL, (Poster).
76. Oji C., Laymon J. Crenshaw S. and **Okeke, B.C.*** (2008). Bacterial reduction and detoxification of hexavalent chromium. Auburn University Montgomery, Undergraduate Research Symposium, April 11, 2008, Montgomery, AL, (Poster).
77. Gunter, V., Davis, V., Bozeman, N., Russel, S.A and **Okeke, B.C.*** (2008). DNA-based identification of bacterial isolates from river water. Auburn University Montgomery, Undergraduate Research Symposium, April 11, 2008, Montgomery, AL (Poster).
78. Houchin R., **Okeke, B.C.*** and Thomson, S. (2008). Development of a vessel powered by bacterial metabolism of suspended organic matter. Auburn University Montgomery, Undergraduate Research Symposium, April 11, 2008, Montgomery, AL. (Talk).
79. **Okeke, B.C**.* (2007). Bioremediation of hexavalent chromium by *Exigobacterium sp*. GS1. 84th Annual Meeting of the Alabama Academy of Science, February 28th to March 2nd 2007, Tuskegee, AL. In Press. The Journal of Alabama Academy of Science, **78 (2):** 100 (Talk).
80. **Okeke, B. C**.*, Oji, C., Crenshaw S. and Laymon, J. (2007). Enrichment and isolation of Cr(VI) resistant bacteria for Cr(VI) bioremediation in water. 84th Annual Meeting of the Alabama Academy of Science, February 28th to March 2nd 2007, Tuskegee, AL. Presented by Oji, C., Crenshaw S. and Laymon, J. The Journal of Alabama Academy of Science, **78 (2)**. 114. (Poster).
81. **Okeke, B. C**.*, Laymon, J., Oji, C. and Crenshaw, S. (2007). Influence of Environmental Parameters on Cr(VI) Reduction by Bacillus sp. PB2 in Aqueous Medium, 107th Annual Meeting of the American Society for Microbiology, May 21-25, 2007, Toronto, Canada (Peer reviewed), (Poster).
82. **Okeke, B. C**.*, Laymon, J., Oji, C. and Crenshaw, S. (2007). Rapid Bioreduction of Hexavalent Chromium in Water by *Exiguobacterium* sp. GS1. 107th Annual Meeting of the American Society for Microbiology, Toronto, Canada, May 21-25, 2007 (Peer reviewed), (Poster).
83. **Okeke B.C**.* and Frankenberger, W.T. (2006): Economic Utilization of Potato Peel Waste for Bioremediation of Perchlorate in Water. 83rd Annual Meeting of the Alabama Academy of Science", Troy, AL, USA. The Journal of Alabama Academy of Science, 77 (2), 61, (Poster).
84. **Okeke, B.C**.* and S. F. Peteu (2006). Bioconversion of Wood Processing Wastes and Lawn Grass for Fuel Ethanol Production. Alternative Energy Solutions from Alabama's Natural Resources. Auburn, October 23-24, (Poster).
85. **Okeke B. C**.*, Guangyu Ma, Quan Cheng, Mark E. Losi and William T. Frankenberger Jr. (2006). Perchlorate Detection in Water by a Microbial Enzyme-Based Biosensor. Abstracts of the 106th General Meeting of the American Society for Microbiology, Orlando, FL USA (Peer reviewed), (Poster).
86. **Okeke, B.C.**, Chang, Y.C., Hatsu, M. and Takamizawa, K. (2000). Molecular characterization of a tetrachloroethylene dehalogenase from *Clostridium bifermentans* DPH-1. *Fifth International Symposium on Environmental Biotechnology*, Kyoto, Japan (Talk, TK)
87. **Okeke, B.C**., Chang, Y.C., Hatsu, M. and Takamizawa K (2000). Dechlorination of tetrachloroethylene by a membrane-associated dehalogenase from *Clostridium bifermentans* DPH-1. Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, 2000, Monterey, CA, USA. (Poster).
88. **Okeke, B.C**. (1999): Bioremediation: a novel biotechnology for the detoxification of environmental pollutants. International Conference on Biotechnology for Development in Africa: priorities of the early 21st century (Talk).

89. **Okeke, B.C**. (1999): Detoxification of a highly chlorinated pesticide (pentachlorophenol) by *Lentinula* species and *Phanerochaete chrysosporium.* International Conference on Biotechnology for Development in Africa: priorities of the early 21st century (Talk).
90. **Okeke, B.C**., Smith, J.E., Paterson, A. and Watson-Craik, I.A. (1994): Bioremediation of pentachlorophenol (PCP) contaminated soil with `shiitake' mushroom fungus (*Lentinula edodes*). Proceedings of the *Second International Symposium on Environmental Biotechnology*, Institution of Chemical Engineers, UK, pp. 16-18. (Talk).
91. Degrassi, G., **Okeke, B.C**. and Venturi, V. (1998): *Bacillus pumilus*: a strong producer of acetyl xylan esterase for hemicelluloses breakdown. Symposium on Molecular Genetics, and Symposium on Mutagenesis and Genotoxicology. Sept. 15-18, 1997, Zlatibor, (Talk, DG).

**Book and Related Publications**

6. **Okeke, B.C**., Lynn, J., Rogers, B., Kilpatrick, J., Ragland, P., Thomson, S., Adams, C. and R. Owens, J.R. (2011). *Principles of Biology* 1 *Laboratory Manual* (8th edition of ISBN: 978-0-88725-349-2). Hunter Textbooks Inc., NC, USA..
7. **Okeke, Benedict C**.; Lynn, Janice; Adams, Caroline and Owens, James R. (2007). *Laboratory Manual for Principles of Biology* 1. 7th edition. Hunter Textbooks Inc., NC, USA. ISBN: 978-088725-3324.
8. Ragland, Penny L, **Okeke, Benedict C**, Lynn Janice, Kilpatrick Joanne and Thomson Sue (2008). Resource Book for Laboratory Manual for Principles of Biology 1. *Setup Guide and Solutions*. Hunter Textbooks Inc., NC, USA.
9. **Okeke, Benedict C**. (2007). Power Point Lectures for Modern Industrial Microbiology and Biotechnology (**CD**). Science Publishers, Endfield, NH

**Book Chapters:**

1. Lynn, Janice; **Okeke, Benedict C**.; Okia, Nathan and Owens, James R. (2007). Introduction to Lab Safety, The Scientific Method, and the Microscope. In: Okeke, B.C.; Lynn, J., Adams, C. and Owens, J.R. (eds.). Laboratory Manual for Principles of Biology 1. 7th edition. Hunter Textbooks Inc., NC, USA. ISBN: 978-088725-3324., pp. 1 – 10.
2. **Okeke, Benedict C**.; Janice Lynn; Owens, James R., Adams Caroline, Elder Jane and Fulton Jean (2007). Microscopy and the Eukaryotic Cell. In: Okeke, B.C.; Lynn, J., Adams, C. and Owens, J.R. (eds.). *Laboratory Manual for Principles of Biology 1*. 7th edition. Hunter Textbooks Inc., NC, USA. ISBN: 978-088725-3324., pp. 35 – 48.
3. Thomson, Sue; Taylor, Kyle; Owens, James R. and **Okeke, Benedict C**. (2007). Prokaryotic Cells and Viruses. In: Okeke, B.C.; Lynn, J., Adams, C. and Owens, J.R. (eds.). *Laboratory Manual for Principles of Biology 1*. 7th edition. Hunter Textbooks Inc., NC, USA. ISBN: 978-088725-3324., pp. 61 – 72.

**AWARDS TO MY RESEARCH STUDENTS**

1. Mentor: Sahinoglu, Hakan; Thomase, Patrick; Daniels, Nyeshia and Brasher, Shani. Selection and Molecular Characterization of Antibiotic Producing Microbial Isolates from Soil. First place for Auburn University Montgomery, Undergraduate Research Paper, 2016
2. Mentor: Brasher, Shani; Sahinoglu, Hakan; Daniels, Nyeshia; Thomase, Patrick; Ingram, Christiane, and **Okeke**, Benedict (2016). Evaluation of Lake Martin Water Samples and Treated Water for Indicator Bacteria. AUM Undergraduate Research Symposium. Second place for Auburn University Montgomery, Undergraduate Research Symposium, 2016
3. Mentor: Sahinoglu, Hakan; Thomase, Patrick; Daniels, Nyeshia; Brasher, Shani; Ingram, Christiane, and **Okeke**, Benedict. Selection and Molecular Characterization of Antibiotic

Producing Microbial Isolates from Soil. Third place for Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2016

4. Thomase, P.; Rodgers, K.; Ingram, C. and **Okeke, B.C.** (2015). DNA-Based Characterization of Sulfate Reducing Bacteria for Bioremoval of Heavy Metals. Second place for Auburn University Montgomery, Undergraduate Research Symposium, 2016
5. Mentor: Ingram, Christiane; Rafferty, Sharla and Paulk, Andrew (2014): Simultaneous Production of Cellulolytic-Xylanolytic-Amylolytic Enzymes for Saccharification of Biomass Mixtures. First place for AUM Sciences Undergraduate Research Symposium 2014, April 16, Montgomery, AL.
6. Mentor: Deravi, Y., Prescott, A., Peaks, S., Bishop, J. and Sawyer, L. **(2011)**. Isolation of Plant Fiber-Degrading Fungi for Conversion of Lignocelluloses to Sugars. Second place for Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
7. Mentor: Deravi, Y. and Prescott, (2011). Enumeration of sulfate reducing bacteria from Gulf oil polluted sites. Third place for Auburn University Montgomery, Undergraduate Research Symposium, April 1, 2011, Montgomery, AL.
8. Mentor: Deva Wright (Carver High Montgomery, AL), was selected for presentation at the Environmentors Conference in Washington DC, organized by the National Council for Science and the Environment. My mentee (Deva Wright) was awarded "Ken and Mary Leach Memorial Scholarship For Excellence in Environmental Stewardship" for presentation of research with Dr. Okeke, entitled "Analysis of *E. coli* in public pool water". Amount: **$500.**
9. Mentor: Deva Wright (Carver High Montgomery, AL), was selected for presentation at the Environmentors Conference in Washington DC, organized by the National Council for Science and the Environment (Airfare, meals and hotel paid for 4 nights).
10. Faculty Mentor: Houchin Roy (2008). Development of a vessel powered by bacterial metabolism of suspended organic matter. Auburn University Montgomery, Undergraduate Research Symposium, April 11, 2008, Montgomery, AL. Won first position certificate for oral presentation, with cash price of **$100.00.**
11. Faculty Mentor: Charles Oji, Jeffery Laymon and Charles Oji (2008). Bacterial reduction and detoxification of hexavalent chromium. Auburn University Montgomery, Undergraduate Research Symposium, April 11, 2008, Montgomery, AL. Won second position certificate for poster presentation, with cash price of **$50.00**.
12. Faculty mentor: Laymon Jeffery (2007)."American Society for Microbiology Student Travel grant", awarded to my student (Jeffery Laymon) to attend and present a paper at the 107$^{th}$ General Meeting of the American Society for Microbiology, Toronto, Canada. Amount: **$500.00**
13. Faculty mentor: Laymon Jeffery (2007)."Auburn Montgomery Undergraduate Research Grant in Aid", awarded to attend and present a paper at the 107$^{th}$ General Meeting of the American Society for Microbiology, Toronto, Canada. Amount: **$672.00**.
14. Faculty Mentor: Shakena Crenshaw, Jeffery Laymon and Charles Oji (2006). Characterization of Chromium Resistant Bacteria for Chromium Bioremediation in Water. AUM Undergraduate GIA. Amount: **$1,200**.

**PROFESSIONAL SOCIETIES**

1. American Society for Microbiology
2. Society for Industrial Microbiology and Biotechnology
3. Sigma Xi
4. Tri Beta
5. American Association for the Advancement of Science (2001-2006)
6. Alabama Academy of Science
7. Alabama Higher Education Partnership
8. African Mycological Association.

**PROFESSIONAL AND MEDIA RECOGNITION/COVERAGE**

1. The New Scientist
   09-03-1994: "Fungi Waste cleans up around sawmills".
2. California Agriculture (http://danr.ucop.edu/calag/0302AMJ/briefs.html#microorganism)
   03-11-2003: Microorganisms found to clean soil, water.
3. Science DailyMagazine (http://www.sciencedaily.com/releases/2003/02/030228072118.htm)
   01-17-2003: UC Riverside Scientists Isolate Microorganisms That Break Down A Toxic Pesticide.
4. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America (http://www.asa-cssa-sssa.org/press/journals/jeq/0301frankenberger.html)
   01-16-2003: Scientists target microorganisms to break down toxic pesticide.
5. UC Riverside News Release (http://www.newsroom.ucr.edu/cgi-bin/display.cgi?id=535).
   02-27-2003: UC Riverside scientists isolate microorganisms that break down a toxic pesticide, Research is key step in detoxifying endosulfan toward improving soil and water quality.
6. Auburn Montgomery School of Sciences Video
   (http://sciences.aum.edu/~sosscc/sciences.wmv)
7. The Alabama Agricultural Land Grant Alliance Report (http://aalga.org/Media/AALGAReport-20.pdf) 09-2007 Issue #20 page 2: protecting Water Quality in Black Belt Drinking Water Wells.
8. Montgomery (AL) Advertiser (06/30/2009): One man's trash is another's new fuel.
9. AUM University Relations (News and Headlines Weekly) (03/01/2010):
10. Opelika-Auburn News: (06/29/2009): AUM professor's reactor could turn waste into energy.
11. AUM University Relations (News and Headlines Weekly) (06/29/2010): Auburn Montgomery professor briefs congressman on clean-burning fuel research.
12. Al.com (09/01/2010): AUM professor gets $40,000 grant to study Gulf oil spill.
13. WSFA, Montgomery News (09/01/2010): AUM professor gets $40K to study Gulf oil spill.
14. Examiner: http://www.examiner.com/birmingham (08/25/2010): Auburn University - more BP oil spill remediation grants

**SERVICES**

**Representative University Services**

1. Senator, College of Sciences (COS), representative (2018 to present).
2. Professional Improvement Leave Committee, COS representative (2018 to present).
3. Judge: ABRCMS-2018, Indianapolis.
4. Distinguished speaker, Auburn University at Montgomery Fall 2013 Commencement
5. Graduate Council (2009 to 2011).
6. Academic Standards Committee (2006 to 2012).
7. AUM Strategic Diversity Plan Committee (2011- 2013).
8. University Outreach Award Committee (2011 to present).
9. Sustainability committee (member).
10. Committee for development of "Environmental Science BS Program".
11. Member of Search Committee for a Grant Accountant.
12. Dais Party: AUM 2014 convocation/matriculation ceremony.
13. Committee for Biology Master's Program Initiative.
14. Contributed to discussions on strategies for China teaching/exchange initiative
15. Chair, faculty promotion committee.
16. Participated and supported a number of AUM outreach video shoots.
17. Member, faculty tenure and promotion committee..

18. Pioneered the establishment of the "Bioprocessing and Biofuel Research Lab (BRRL) in AUM.
19. Procured "state-of-the art research equipment for AUM's BBRL.
20. Mentor – New Faculty.
21. Mentor – Postdoctoral Researchers.
22. Mentor – Graduate Research Students.
23. Mentor – Undergraduate Research Students.
24. AUM Engineering Club, Faculty Advisor.
25. AUMFest 2007, 2006 and 2005 (volunteer).
26. Academic advising (Pre-Health Science).
27. Academic advising (Public Health and Microbiology).
28. Academic advising (Molecular Biology, 2006-2008).
29. Curriculum committee, Department of Biology.
30. Chair, search committee to hire a postdoctoral research specialist faculty (2011).
31. Member, search committee to hire a postdoctoral research specialist faculty (2010)
32. Tenure and promotion committees for Biology faculty.
33. Third year review committees for Biology faculty.
34. Department of Biology Faculty/Staff Search Committees.
35. Administrator for the "DNA sequencing machine".
36. Doctoral Thesis Examiner: University of Agriculture Fasilabad, Pakistan.
37. Tenure Track Position Evaluation: University of Arid Agriculture Rawalpindi, Pakistan.

**Research Proposal Review**

1. United States NSF panel
2. Austrian Science Fund
3. European Union
4. Brazil CNPq

**Associate Editor**

1. *Journal of Environmental Quality* **-** An International Journal of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America.

**Assistant Editor**

1. *Applied Biochemistry and Biotechnology.*

**Editorial board**

1. Applied Biochemistry and Biotechnology
2. Agriculture, Food and Analytical Bacteriology

**Peer Referee for Journals**

1. *Sensors*
2. *Bioremediation Journal*
3. *BMC Microbiology*
4. *Talanta*
5. *Environmental Science and Technology*
6. *Journal of Environmental Quality*
7. *Advances in Environmental Research.*
8. *Bioresource Technology*
9. *Journal of Environmental Management.*
10. *Journal of Material Cycles and Waste Management.*

*11. FEMS Microbiology Letters.*
*12. Applied Biochemistry and Biotechnology.*
*13. Journal of Applied Microbiology.*
*14. Letters in Applied Microbiology,*
*15. Water Research.*
*16. Environmental Engineering Science.*
*17. Journal of Environmental Engineering.*
*18. Soil and Sediment Contamination.*
*19. Journal of Biobased Materials and Bioenergy.*
*20. Acta Physiologiae Plantarum.*

**Community Service (Outreach to the local community)**

1. Judge for students poster presentations at the 76th Annual Meeting of the Association of Southeastern Biologists (ASB), Chattanooga TN, April 1–4, 2015.
2. Judge for poster presentations at the NanoBio Summit 2014 at the University of Alabama, Tuscaloosa.
3. EvironMentor - a program of the National Council for Science and the Environment.
4. Bacteriological Examination of Community Water: Currently examining two water wells in black belt counties of Alabama and the city of Tuskegee water treatment plant in Franklin.
5. Organized and directed microbiology laboratory experience (The World of Microorganisms) for High School Students.
6. Science Fair judge.
7. Alabama Higher Education Commission.
8. Currently conducting research on "the development of farm deployable bioreactor for fuel ethanol production" – a potentially useful process for the common farmer and others.

**PROFESSIONAL DEVELOPMENT (CONFERENCES/WORKSHOPS/COURSES)**

1. Project Management Workshop, Fred Pryor Seminars & Careertrack, Birmingham, May 2015
2. Faculty WFDI (Writing-Intensive Faculty Development Institute) Part I training during the Summer 2015 Semester.
3. American Society for Microbiology, 114th General Meeting, May 30- June 2, 2015.
4. Society of Research Administrators conference, MontgomeryAugust 12, 2011.
5. NanoBio Summit 2014 at the University of Alabama; served as a Judge.
6. Society for Industrial Microbiology & Biotechnology Annual Meeting and Exhibition 2014, Saint Louis, MO (July 19-24, 2014).
7. American Society for Microbiology, 113th General Meeting, May 17-20, 2014.
8. Mandated Reporting of Sexual Misconduct by Campus Employees. , October 17, 2014.
9. Technology Speed Dating"
10. Camtasia Relay:
11. Blackboard: Assignments, Groups and Grade Center.
12. Using PeerMark in Turnitin.
13. WS-01 Careers in Microbiology, ASM, Denver, Colorado, May 18, 2013.
14. Society for Industrial Microbiology & Biotechnology Annual Meeting and Exhibition 2013 (August 11-15, 2013). Presented August 11, 2013
15. Society Society for Microbiology, 113th General Meeting, May 18-21, 2013, Denver, Colorado. Presented May 19, 2013.
16. Auburn University Research Week-2013, kick-off presentation.

17. Workplace Harassment – Faculty Who Supervise. I attended and participated in this training. June 19, 2013.
18. DOE "Web Based BETO Reporting System" training session. GoToMeeting, April 16, 2013.
19. Kronos – I participated in this training. June 27, 2013.
20. The 62nd Annual Meeting of the Society for Industrial Microbiology and Biotechnology (August 12-16, 2012, Washington, DC).
21. Workshop on Fermentation, Society for Industrial Microbiology and Biotechnology (August 12, Washington, DC).
22. The 112th General Meeting of the American Society for Microbiology, 112th General Meeting (June 16 - 19, 2012, San Francisco CA).
23. The 61st Annual Meeting of the Society for Industrial Microbiology and Biotechnology (July 24-28, New Orleans, LA).
24. The 111th General Meeting of the American Society for Microbiology (May 21-24, 2011, New Orleans, LA).
25. Maintaining a Violence Free Workplace, AUM Public Safety Office and University Outreach (Thursday, November 3, 2011).
26. SMART Podium training (formerly the Sympodium interactive pen display) in teaching. Auburn Montgomery ITS course.
27. The 60th Annual Meeting of the Society for Industrial Microbiology and Biotechnology (August 1-5, 2010, San Francisco, CA).
28. The 86th Annual Meeting of the Alabama Academy of Science, March 25th to March 27th 2009, The University of West Alabama, Livingston, AL.
29. The 108$^{th}$ general meeting of the American Society for Microbiology (May 17 -21, 2009, Philadelphia, PA),
30. Workshop on "DNA sequence based identification of bacteria: generation, analysis of data, and interpretation of results", organized by the American Society of Microbiology at Northeastern University, Boston, MA, June1, 2007.
31. The Society for Industrial Microbiology Annual Meeting, August 10-14, 2008. San Diego, CA. (**With presentation).**
32. The "108$^{th}$ General Meeting of the American Society of Microbiology" (June, 1 through June, 5, 2008; Boston, MA) (**With presentation**).
33. Workshop on "Auburn University's 2010 Federal Agenda", Auburn, June 13, 2008.
34. AUM FDI Online Teaching Re-Certification Courses (2014)
    1. Technology Speed Dating: 2 hours
    2. Camtasia Relay: 3 hours
    3. Blackboard: Assignments, Groups and Grade Center: 3 hours
    4. Using PeerMark in Turnitin
35. Developing and delivering Online Instruction training (Completed and certified):
    1. Faculty Panel: Teaching Online: Lessons from the Trenches: February 24, 2010
    2. Blackboard 9.0 Basics/Presenting Content: June 8, 2010
    3. Using Respondus to Create Assessments: June 9, 2010
    4. Blackboard 9.0: Communicating with Students: June 10, 2010
    5. Blackboard 9.0: Assessments: June 15, 2010
    6. Blackboard 9.0: Assignments, Groups and Grade Center: June 16, 2010
    7. Blackboard 9.0: Using Wimba Live Classroom: Tuesday, June 22
    8. Online Course Quality Standards: June 23, 2010
36. Blackboard training sessions:
    1. Communication with Students (June 16, 2008).
    2. Presenting Content (June 18, 2008)

3. Creating a Module (June 23, 2008).
4. Managing your Course (July 7, 2008).
5. Managing Assessments (July 9, 2008).
6. Managing the Gradebook (July 21, 2008).

37. The "107th General Meeting of the American Society of Microbiology" (May 21 through 25, 2007; Toronto, Canada) (**With presentation**).
38. The "84rth Annual Meeting of the Alabama Academy of Science" (February 28th to March 2nd 2007, Tuskegee, AL) (**With presentation**).
39. The "106th General Meeting of the American Society of Microbiology" (May 21 through 25, 2006; Orlando, Florida) (**With presentation**).
40. The "83rd Annual Meeting of the Alabama Academy of Science" (March 15 – 18, 2006; Troy University, Troy) (**With presentation)**.
41. Attended all five sessions of "new faculty enhancement program" four of which covered the following topics:
    1. Active Learning;
    2. Teaching and Technology;
    3. Involving Students Beyond the Classroom;
    4. Assessment, Plagiarism and "Turn-It-In".
42. Advance SBIR/STTR Conference. Wining Federal R$D Funding, a full-day workshop, Rancho Cucamonga, California, USA 2004.
43. Scientific Conference on Perchlorate, Riverside, California, USA 2003.
44. Remediation of Chlorinated and Recalcitrant Compounds, The Second International Conference", Monterey, California, USA 2000 (**With presentation**).
45. International Conference on Biotechnology for Development in Africa: Priorities of the Early 21st Century, Enugu, Nigeria, 1997 (**With <u>invited</u> presentation**).
46. Computer Methods in Molecular Biology, ICGEB, Trieste, Italy 1997.
47. Second International Symposium on Environmental Biotechnology, Brighton, England, July 1994 (**With presentation**).
48. International Symposium on Soil Decontamination using Biological Processes, Germany, December, 1992.
49. International Symposium on Contaminated Land Treatment Technologies, London, England, July 1992.
50. International Workshop on Genetic Engineering, Enugu, Nigeria, September, 1988.

**SYNERGISTIC ACTIVITIES**

1. EvironMentors - a program of the National Council for Science and the Environment. Mentored two high school students (Deva Wright and Adam Yazeed, Carver High Montgomery, AL) who won in the local fair and presented their research in EnvironMentors fair in Washington DC. Deva Wright was awarded "Ken and Mary Leach Memorial Scholarship for Excellence in Environmental Stewardship" for presentation of research, entitled "Analysis of *E. coli* in public pool water", at the DC fair. Amount: **$500.**
2. Professional meetings: presented papers at several meetings.
3. Ecomat Inc. CA: collaborates on perchlorate and hexavalent chromium bioremediation.
4. Technova corp: collaboration in development of biosensors and alternative energy.
5. University of California in Riverside. Collaborates on research involving bacterial removal of selenium oxyanion from water and perchlorate biosensor development.
6. Federal University of Rio Grande Sul, Porto Alegre, Brazil. Collaborates on research involving bioremediation of environmental pollutants.
7. Microbiology laboratory visit for interested high school students in Montgomery, Alabama.

8. Doctoral thesis external examiner (University of Agriculture, Faisalabad-38040).

**HONORS NOTABLE**

1. Distinguished Research Professor. Auburn University at Montgomery.
2. Ida Belle Young Endowed Professorship (Auburn University at Montgomery) 2013.
3. Excellence Award for Funded Research. Auburn University at Montgomery.
4. Faculty Research Award, AUM School of Sciences.
5. Junior Faculty Award for excellence in teaching, research and services.
6. Japan Society for the Promotion Science Postdoctoral Fellowship, Japan, 1998.
7. International Center for Genetic Engineering and Biotechnology Postdoctoral Fellowship, Italy, 1996.
8. Commonwealth Scholarship of Association of Commonwealth Universities, London, UK, 1991.
9. Rotary Foundation Scholarship of Rotary International, 1988.
10. Extraordinary Ability, US Citizenship and Immigration Services, 2002.
11. Anambra state (Nigeria) ministry of science and technology price award for excellence in biological sciences, 1985.
12. Faculty book price award for the best graduating student in the Faculty of Biological Sciences (University of Nigeria), 1985.
13. Departmental book price award for the best graduating student in Microbiology (University of Nigeria), 1985.