**Keerthi Appala**

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**OBJECTIVE**

Pursue a challenging career and be a part of a progressive institution that gives scope to enhance my knowledge, skills through extensive research and to reach the pinnacle in the field with sheer dedication and determination**.**

**Education**

1. Ph.D., Analytical Chemistry, University of Georgia, Athens, GA. **2019- Present**

* Advisor- Dr. Kelly Hines.
* A -year graduate student- Graduate Research Assistant, Working on the project “Effects of Exogenous fatty acids on the daptomycin susceptibility in Staphylococcus aureus.”
* Accepted into the Glycoscience Training Program (GTP) as a fellow in 2021.

1. M.S, Chemistry, Western Kentucky University, Bowling Green, KY. **2017-2019**

* Advisor- Dr. Eric Conte.
* Research- “Quantification of Tylosin Antibiotics and Antibiotic Resistance Genes in

Cattle Waste.”

* “Degradation of Tetracycline Antibiotics in Livestock and Poultry Manure during

Anaerobic Digestion."

* Overall G.P.A of 4.0.
* An outstanding Graduate student (2019) by the American Institute of Chemists.

<http://www.theaic.org/award_winners/student_awards2019.html>

1. M. pharmacy, Pharmaceutical Analysis & Quality Assurance, Osmania University.

**2013-2015**

* Advisor- Dr. R. Nageswara Rao.
* Research- “Quantification of Telmisartan in dried blood spots by validated LC-MS

method: Application to Pharmacokinetics”.

* “LC-MS/MS Determination of Antihypertension Drugs in Rat Plasma and Urine:

Applications to Pharmacokinetics **“(Co-author).**

* An outstanding student in the class with 85%(GPA-4.0).

1. B. Pharmacy, Sri Venkateshwara College of Pharmacy, Hyderabad, India **2009-2013.**

* Gold Medallist for being the topper for four years of the undergraduate program.
* Experience in handling Gel-electrophoresis, Microbial growing techniques, and

Vaccines

* Overall GPA-4.0.

**Experience**

1. **Graduate Research Assistant** **2020-Present**

* Trained an undergraduate on handling the experiments in Biosafety level-2 cabinet, growing the bacteria, and performing the 96-well plate Minimum inhibitory concentration (MIC) experiments.

1. **Graduate Teaching Assistant** **2019-2020**

* Responsible for teaching general chemistry experiments to undergraduate students.
* Responsible for tutoring general chemistry topics to undergraduate students.
* Also worked as a preparatory laboratory assistant. Responsible for setting up experiments, preparation of reagents, setting equipment for running undergraduate chemistry labs.

1. **Graduate Research Assistant, WKU.** **2017-2019**

* Developed and Optimized an LC-MS/MS method for “Quantification of tylosin

in the cattle waste (Faeces)”.

* Graduate Teaching Assistant (WKU) –Conducted, Fundamentals of organic chemistry, Quantitative Analysis, and introduction to college chemistry labs.

1. **Project Trainee**, Indian Institute of Chemical Technology, India, **2014-2015**

* Developed and Validated an LC-MS method for “Quantification of Telmisartan

in Dried Blood Spots: Application to Pharmacokinetics.”

**Academic Presentations**

1. Appala, K.; Kasumba, J.; Carlisle, A.; Getahun, E. A.; John, H. L.; Eric, C. “Quantification of Tylosin Antibiotics and Antibiotic-Resistant Genes in Cattle Waste.” 48th Annual WKU Student Research Conference, WKU, Kentucky, March 24, **2018**. (Poster)
2. Appala, K.; Kasumba, J.; Carlisle, A.; Getahun, E. A.; John, H. L.; Eric, C. “Quantification of Tylosin Antibiotics and Antibiotic-Resistant Genes in Cattle Waste.” Kentucky Academy of Sciences 2018 Annual Meeting, WKU, Kentucky, NOV 2 & 3, **2018.** (Oral Presentation)
3. Appala, K.; Kasumba, J.; Carlisle, A.; Getahun, E. A.; John, H. L.; Eric, C. “Development and Optimization of LC-MS/MS method for quantification of tylosin in the cattle waste (feces).” Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON), Philadelphia, Pennsylvania, March 17 - 21, **2019.** (Poster)
4. Appala, K.; Kasumba, J.; Carlisle, A.; Getahun, E. A.; John, H. L.; Eric, C. “Development and Optimization of LC-MS/MS method for quantification of tylosin in the cattle waste (Faeces).” 49th Annual WKU Student Research Conference, WKU, Kentucky, March 23, **2019**.(Poster presentation)
5. Appala, K.; Kasumba, J.; Carlisle, A.; Getahun, E. A.; John, H. L.; Eric, C. “Quantification of Tylosin Antibiotics and Antibiotic-Resistant Genes in Cattle Waste.” **2019** (Dissertation thesis).
6. Appala, K.; Cooper, J.; Perciaccante, A.; Hines, K.M.; “A C30 RPLC-IM-MS method for resolving lipids with fatty acid isomers in *Enterococcus faecalis*” ASMS **2021**,Philadelphia,Pennsylvania. (Poster presentation)
7. Appala, K.; Hines, K.M.; “Effect of exogenous fatty acids on daptomycin susceptibility in *Staphylococcus aureus*.” World Microbe forum **2021** (Poster presentation)

**Publications**

1. Nimmu, N. V.; Arnipalli, M. K. S.; Appu, K.; Khalid, S.; Ramisetti, N. R.  “LC-MS/MS Determination of Antihypertension Drugs in Rat Plasma and Urine:Applications to Pharmacokinetics.” *Chromatographia* **2018**, *81*(11), 1551–1557.
2. Kasumba, J.; Appala, K.; Agga, G. E.; Loughrin, J. H.; Conte, E. D. Anaerobic Digestion of Livestock and Poultry Manures Spiked with Tetracycline Antibiotics. J Environ Sci Health B **2019**, 1–13. <https://doi.org/10.1080/03601234.2019.1667190>.
3. Appala, K., Bimpeh, K., Freeman, C. *et al.* Recent applications of mass spectrometry in bacterial lipidomics. *Anal Bioanal Chem* **412,**5935–5943 **2020**. <https://doi.org/10.1007/s00216-020-02541-8>
4. Freeman, C.; Hynds, H. M.; Carpenter, J. M.; Appala, K.; Bimpeh, K.; Barbarek, S.; Gatto, C.; Wilkinson, B. J.; Hines, K. M., Revealing Fatty Acid Heterogeneity in Staphylococcal Lipids with Isotope Labeling and RPLC–IM–MS. Journal of the American Society for Mass Spectrometry **2021**, 32 (9), 2376-2385. <https://pubs.acs.org/doi/10.1021/jasms.1c00092>
5. Agga, G.E.; Couch, M.; Parekh, R.R.; Mahmoudi, F.; Appala, K.; Kasumba, J.; Loughrin, J.H.; Conte, E.D. Lagoon, Anaerobic Digestion, and Composting of Animal Manure Treatments Impact on Tetracycline Resistance Genes. Antibiotics **2022**, 11, 391.

<https://doi.org/10.3390/antibiotics11030391>

**Equipment HandlING:**

Laboratory scale tablet punching machine, Dissolution apparatus, Disintegration apparatus, Colorimeter, U.V.-Visible spectrometer, RP-H.P.L.C, IEC (Ion Exchange Chromatography), GPC (Gel Permeation Chromatography), Centrifuge, GC-MS (Gas chromatography-Mass spectrometer), Freeze-drier, LC-MS/MS (Liquid Chromatography-Tandem Mass Spectrometry), MALDI-TOF-MS (Matrix-assisted laser desorption/ionization) Time of flight Mass Spectrometer), IM-MS/MS (Ion-Mobility Mass Spectrometer).

**SKILLS** :

* + IPQA for tablets and parenteral, Knowledge of production of tablets, capsules, parenteral.
  + Knowledge of GMP's, Sop’s (Standard operating procedures), GLP, Good Computer knowledge.
  + Handled biological and microbiological samples.
  + Quality control procedures.