

A. Title page

Professional Development Grant Report  
Arkansas Tech University

Participation in the 255<sup>th</sup> American Chemical Society (ACS) National Meeting

by

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## B. Restatement of problem researched or creativity

I recently gave a talk entitled “Fluorescent-based biosensors for detection of human serum albumin protein” at the 255<sup>th</sup> American Chemical Society (ACS) National Meeting. The meeting was held in New Orleans from March 18<sup>th</sup> to 22<sup>nd</sup>, 2018. I was also co-author of one poster presentation entitled “water-soluble red fluorophores: synthesis, spectral properties, and protein association study”. Two ATU Undergraduate students (Chemistry Major) made the poster presentation.

## C. Brief review of the professional enhancement opportunity and research procedure

I gave a talk on the development of water-soluble fluorophores for detection of an important biomarker, Human Serum Albumin. My talk was scheduled in the division of Molecular Recognition and Self-assembly. There were numerous undergraduate and graduate students in the audience. Several undergraduate students from ATU were present during my talk. Scientists from USA as well as from foreign countries such as China, Japan, Germany, and Netherlands were present during my presentation. The talk lasted for 17 minutes followed by 5 minute question/answer section. During the Q/A session, several ideas were exchanged between the speaker and the audience. Moreover, information about the state-of-the art HSA detection techniques as well as how to lower the detection limit for the HSA in the spectrophotometric techniques were discussed. I received positive and constructive feedback that helped me to improve our manuscript.

ACS national meetings are held twice a year. It is the largest gathering of chemistry students, scientists, professors, and chemical industries from all over the world. The opportunity was ideal for me to meet potential collaborators, directors of grant agencies, and editors/publishers of journals and books, and other fellow reserachers from the same fields and sub-fields.

#### D. Summary of experiences

This conference provided an excellent opportunity to familiarize myself with the current research in macro- and supra-molecular sciences, including the development of potential tools for treatments of life-threatening diseases. Moreover, the experience gained in the conference through formal and informal discussions with scientists and educators will help me to integrate new scientific concepts, methodology, and technology in my courses at ATU.

#### E. Conclusions and recommendations

Overall, the conference was an excellent experience which helped me to explore several new areas of research and chemical education. I am grateful that I was given the opportunity to attend and present our research conducted at ATU to the international communities of scientists and educators.