What do I need to do for the abstract?

Please provide the title of your project.

The abstract is a succinct outline of your research project. For experimental projects, it (1) presents the principal objective and scope of your project; (2) describes the methodology; (3) summarizes the results; (4) states the principal conclusions. If you have no results yet, give the conclusions or recommendations for continuation of the project or for subsequent work to be done. Use clear, significant words when writing your abstract; eliminate extraneous words. Do not use abbreviations, jargon, or specialized words. Abstracts rarely cite references. Your abstract should stand alone and be intelligible.

The abstract will be printed in the symposia proceedings, so it is essential that all information appear as you want it in print. Be sure to proofread the text! We will print it as you submit it. Remember that careless writing gives the impression of careless work. Be concise! Abstracts should be no longer than 100-200 words. Abstracts that exceed the word limit will be returned to the student for editing and resubmission.

Submitting Your Abstract

We need two copies of your abstract, one submitted by email (very important) to **WardTinaR@uams.edu** as a Word attachment, AND the other a hard copy, signed by both you and your mentor. *Both of these are due one week prior to the oral presentation*. If you have special symbols or formatting as part of your abstract, it must be formatted for a PC in Microsoft Word. We do not have the software capability to translate other programs. (This is especially important if you include equations or a graphic - it must be reformatted to Word.) An example of how your abstract should look is shown below.

SAMPLE FORMAT: For publication purposes, please use Verdana (if not, then use Times Roman) font, size 10. Bold the title and italicize the mentor's name.

Employing Protein Chimeras of Cytochrome P450 Reductase to Map Surfaces for Protein-protein Interactions Jun Gao *Mentor: Grover P Miller, PhD*

Cytochrome P450-catalyzed metabolism of endogenous and exogenous (xenobiotic) compounds requires electrons from cytochrome P450 reductase (CPR). We hypothesize that CPR possesses two surfaces of interaction to transfer electrons to proteinaceous acceptors. To identify and characterize these sites, we introduced CPR structural elements into the FMN domain of BMR, a reductase lacking specific sites for protein-protein interactions. One proposed surface involves the beta sheet 4 and alpha helix C and beta sheet 3-alpha helix D (b3aD) loops; the other involves the beta sheet 4 and alpha helix E and beta sheet 5 alpha helix F-beta loops. The ability of these protein chimeras to reduce 2, 6-dichlorophenol- indophenol (DCIP) and cytochrome *c* was used to differentiate between effects on FMN redox properties and protein-protein interactions, respectively. Activity toward DCIP decreased for chimeric mutant BMR-b3aD, although substitutions affected cytochrome *c* reduction more significantly. Steady-state analysis of DCIP reduction by BMR-b3aD indicated that *kcat* values were slightly less than that of CPR, but *Km* values increased 7-fold relative to CPR and BMR values. Steady-state kinetics for cytochrome *c* reduction by BMR- b3aD was similar to CPR. Future efforts to dissect the CPR surfaces of interaction include the characterization of chimeras possessing less dramatic loop substitutions.