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13. ABSTRACT *(Maximum 200 words)*

The Joan B. and Donald R. Diamond Lung Injury Laboratory at the University of Arizona College of Medicine has had a relatively long history with the U.S. Department of Defense AASERT grant program that began in the early 1990's. There were two University of Arizona graduate students, Allison Hays and Juanita Hyde, sponsored by my AASERT grant in its final year. Allison Hays is in the doctoral program of the Department of Cell Biology & Anatomy in the UA College of Medicine. Since the AASERT program has ended, Ms Hays is currently receiving financial support from the Department of Cell Biology & Anatomy. She is preparing for her oral examinations having passed her written doctoral examinations earlier this year. She expects to have her doctoral degree completed by May of 2002. The Other student supported by the AASERT program in its final year was Juanita Hyde. Juanita graduated with a Bachelor of Science degree from the University of Arizona in May of 2001. I have now exployed Juanita as a full-time research technician in my laboratory and she is continuing to take graduate courses working towards a Master's degree in Industrial Hygiene.

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Subject: RE: AASERT Annual Report

DEPARTMENT OF DEFENSE AASERT GRANT, "RESEARCH TRAINING OF THE EFFECTS OF TOXIC SUBSTANCES ON THE LUNGS"

Final ~~Progress~~ Report from July 1, 2000 to June 30, 2001

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Background

The Joan B. and Donald R. Diamond Lung Injury Laboratory at the University of Arizona College of Medicine has had a relatively long history with the U.S. Department of Defense AASERT grant program that began in the early 1990's. There were two University of Arizona graduate students, Allison Hays and Juanita Hyde, sponsored by my AASERT grant in its final year. Allison Hays is in the doctoral program of the Department of Cell Biology & Anatomy in the UA College of Medicine. Since the AASERT program has ended, Ms. Hays is currently receiving financial support from the Department of Cell Biology & Anatomy. She is preparing for her oral examinations having passed her written doctoral examinations earlier this year. She expects to have her doctoral degree completed by May of

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Progress in the Past Year

Both students are presently conducting research efforts associated with our AFOSR grant entitled, "The Role of Substance P in a Model of Chronic JP-8 Jet Fuel Exposure". Ms. Hays is continuing work on her unique dynamic lung slice culture system that utilizes intact lung slices exposed to various concentrations of JP-8 jet fuel. This novel cell culture system allows us to determine the response(s) of all 40 cell types in the lungs to JP-8 jet fuel exposure. Juanita Hyde has undertaken the management of our JP-8 jet fuel lung proteomics research. She presented her initial project at the Experimental Biology 2001 meeting this past April in Orlando, Florida.

Research Publications

(1) Hays AM, Wijeweera J, Lantz RC, Witten M: The effects of JP-8 jet fuel on ATP concentration in agar-filled precision cut rat lung slices in invitro culture. TOXICOLOGIC PATHOLOGY (in press).

(2) Hyde J, Witzmann F, Lee R, Witten ML: Analysis of lung proteomic changes after exposure to JP-8 jet fuel. THE FASEB JOURNAL, 2001, 15:A485.