

Project Title: Molecular Characterization of Methicillin Resistant Staphylococcus aureus MRSA Isolates

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Project summary: Methicillin resistant Staphylococcus aureus (MRSA) in correctional facilities has garnered the attention of public health officials in Texas and other parts of the United States since 2000. A project aimed at determining the carriage rate (prevalence) and MRSA strains by using Pulsed Field Gel Electrophoresis (PFGE) in a Texas county jail was completed in May 2005 by Rodney Rohde(http://ecommons.txstate.edu/osp_regs/54/) and the Department of State Health Services (DSHS) Infectious Disease Unit and Bureau of Laboratories. During the 2005 REP project, a collection of 403 samples was obtained from July 10, 2004 through August 31, 2005. Of the 403 samples, 18 were culture confirmed MRSA and this set would be utilized for the molecular testing of this project. Published experience with rapid detection of MRSA directly from clinical samples therefore focuses on methods that can detect not only the mecA gene but also a gene (e.g., coa or femA) that can distinguish the presence of S. aureus from the presence of Coagulase negative S. aureus (CoNS). The objective of this project was to detect the presence of these genes in the MRSA isolates that were found in the 2005 REP project.