

**Session H - BIOCHEMISTRY AND MICROBIOLOGY (239)**

**Chair: Dr. David Moffett, Loyola Marymount University**

**S40 (2:00pm)** COMPARISON OF NATURAL AND ANALOG dNTP INCORPORATION INTO DNA BY T4 BACTERIOPHAGE POLYMERASE AND HUMAN DNA POLYMERASE  $\alpha$ . Greg Timblin\*<sup>1</sup> (Robert Kuchta<sup>2</sup>), <sup>1</sup>Nebraska Wesleyan University, Dept. of Biology, 5000 St. Paul Ave., Lincoln, NE 68504 and <sup>2</sup>University of Colorado, Dept. of Chemistry & Biochemistry, UCB 215, Boulder, CO 80309-0215.

**S41 (2:15pm)** QUANTUM CHEMICAL QUANTIFICATION OF WEAKLY POLAR INTERACTION ENERGIES IN THE TC5B MINIPROTEIN. Marcus P. D. Hatfield\*<sup>1,2</sup>, (Sándor Lovas<sup>2</sup>), <sup>1</sup>Nebraska Wesleyan University, Lincoln, NE 68504; <sup>2</sup>Department of Biomedical Sciences, Creighton University, Omaha, NE 68178.

**S42 (2:30pm)** TOWARDS THE X-RAY CRYSTAL STRUCTURE OF P53R2, A P53 INDUCIBLE RIBONUCLEOTIDE REDUCTASE. Danny Nam Ho\*, Cynthia Bui, Peter Smith (Sheryl Tsai), University of California, Irvine, Dept. of Biochemistry and Molecular Biology, West Peltason Dr., Irvine, CA 92697.

**S43 (2:45pm)** MEASURING INTERNAL MN LEVELS AND ESTABLISHING THE UPTAKE TREND IN *CAENORHABDITIS ELEGANS* USING ICP-MS. Lihini Keenawinna\* (C. Srinivasan), California State University Fullerton, Department of Chemistry and Biochemistry, 800 N. State College Blvd, Fullerton, CA 92831.

**S44 (3:00pm)** CRYSTALS AND KEYS: UNDERSTANDING AN IMPORTANT SUBUNIT OF ACYL CO-A CARBOXYLASE IN *MYCOBACTERIUM TUBERCULOSIS*. Shushmita M. Ahmed\*, Ting-Wan Lin (Sheryl Tsai), University of California, Irvine, Dept. of Biochemistry and Molecular Biology, West Peltason Dr., Irvine, CA 92697.

**S45 (3:15pm)** ACTIVATION AND TRANSPORT FUNCTIONS IN THE *SERRATIA*-TYPE HEMOLYSIN AND TRANSPORTER OF *CHROMOBACTERIUM VIOLACEUM*. Kyle Sally-O'Keefe\* (Lamont Anderson), Department of Biology, Colorado College, 14 E. Cache la Poudre, Colorado Springs, CO 80903.