Wednesday, April 26, 2017 POSTER SESSION III: ORIGIN AND EVOLUTION OF LIFE: EVOLUTION/GENETICS: EARLY GENOMES, RIBOSOMES, AND TRANSLATION 7:00 p.m. Main Hall

Lanier K. A. Williams L. D.

Reading the Ribosome: The History of rRNA and rProtein [#3628]

We show that the ribosome is imprinted with a detailed and complete chronology of the origins and early evolution of RNA and proteins.

Bray M. S. Albalate C. M. O'Neill E. B. Reddi A. R. Morton P. L. Glass J. B. Williams L. D. *Bacterial Ribosomes Incorporate Iron Under Pre-GOE Conditions* [#3419]

Our findings support the hypothesis that extant ribosomes retain the ability to incorporate and function with Fe_2+ in vivo under pre-GOE conditions.

Smith C. A. Muhammad JB-B. Shaw R. Wachira J. M.

Modeling the Chemical Properties of the Peptidyl Transferase Center [#3592]

The studies are geared towards a better understanding of the effects of post-transcriptional modifications on the chemical properties of ribosomal RNA.