Functional diversification of the RING finger and other binuclear treble clef domains in prokaryotes and the early evolution of the ubiquitin system

A. Maxwell Burroughs¹, Lakshminarayan M. Iyer¹, L. Aravind*²

¹ Omics Science Center (OSC), RIKEN Yokohama Institute, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama-shi, 230-0045 Kanagawa, Japan of America

² National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, Bethesda, MD 20894, United States * Corresponding author. E-mail address: aravind@mail.nih.gov; Tel.: +1-301-594-2445;

Supplementary Information for this article can be viewed at: