

protein profiles from trophozoite. The 4-day and 7-day cysts had outer cell wall and their protein profiles were similar except 2-3 proteins. Compared with trophozoites, 7-day cyst had 17 newly synthesized proteins and lost 44 proteins. During encystment, *A. castellanii* showed a significant change in the pattern of proteins reactive with anti-thioredoxin peroxidase (TPx) antibody. The mAb reacted with 9 proteins (100, 66.2, 64.0, 56.1, 51.8, 51.2, 48.0, 38.7, and 37.9kDa) in trophozoites. The 1-day, 4-day and 7-day cysts had 7 proteins (82.7, 66.2, 56.9, 52.4, 51.6, 46.8, 36.4, and 35kDa) in common. We identified several stage specific cyst proteins. The 1-day, 4-day and 7-day cysts had 4 (35.5, 34, 26.4, 21.2kDa), 2 (100, 52.4kDa) and 3 (100, 52.4, 48.2kDa) stage specific proteins, respectively. For the structural or functional identification of cyst stages, the mAb reactive stage specific proteins were analyzed by MALDI-TOF-MS.

embryonic development, growth retardation and abnormal anterior-posterior axis development, resulting in short and bent phenotype in dose dependent manner. Our data suggest that YY1 may have an important role during *Xenopus* embryogenesis.

D803 Role for Yin Yang 1 (YY1), a Vertebrate Polycomb Group (PcG) Gene in *Xenopus* Embryonic Development

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Yin Yang 1 (YY1) is a zinc finger-containing transcription factor that can act as a transcriptional repressor, an activator, or an initiator element-binding protein. Here we analyzed the expression and role of YY1 during *Xenopus laevis* development. Abundant levels of YY1 mRNA and protein were detected in oocytes and in all subsequent stages of embryonic development through to swimming larval stages. YY1 protein is highly expressed in the CNS. To address the role of endogenous XYY1, XYY1 activity was antagonized by injecting antisense RNA or antisense morpholino oligonucleotides. Many of these embryos showed delayed