

DIFFERENTIALLY REGULATED PROTEINS IN *Prevotella intermedia* AFTER OXIDATIVE STRESS ANALYZED BY 2D ELECTROPHORESIS AND MASS SPECTROMETRY.

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Prevotella intermedia is an opportunistic indigenous anaerobic pathogen involved in polymicrobial infections. There is increasing interest concerning anaerobic bacteria resistance to oxidative stress, since this ability qualifies them to colonize oxygenated tissues as far as an anaerobe condition is settled in the infectious site. Little is known regarding the oxidative stress response in *P. intermedia*. We report differentially regulated proteins in *P. intermedia* ATCC25611 after molecular oxygen exposure by using 2-D electrophoresis and mass spectrometry. Identity of differentially regulated proteins was assessed by database searching for homology with other microorganisms. Thioredoxin, DnaK and succinyl-CoA synthetase were found to be up regulated; aspartate-semialdehyde dehydrogenase and elongation factor TU were down regulated after oxidative stress. This is one of the first studies using genetic and physiological approaches to understand *P. intermedia* response to oxidative stress. Advances were made related to the changing patterns of gene/protein expression in the adapted strains; however, there is still much to be undertaken regarding the precise mechanisms of oxidative stress protection and how they might evolve in the host. Supported by CNPq and FAPEMIG.

Key words: *Prevotella intermedia*, oxidative stress, proteome, MALDI-TOF/TOF-MS/MS.