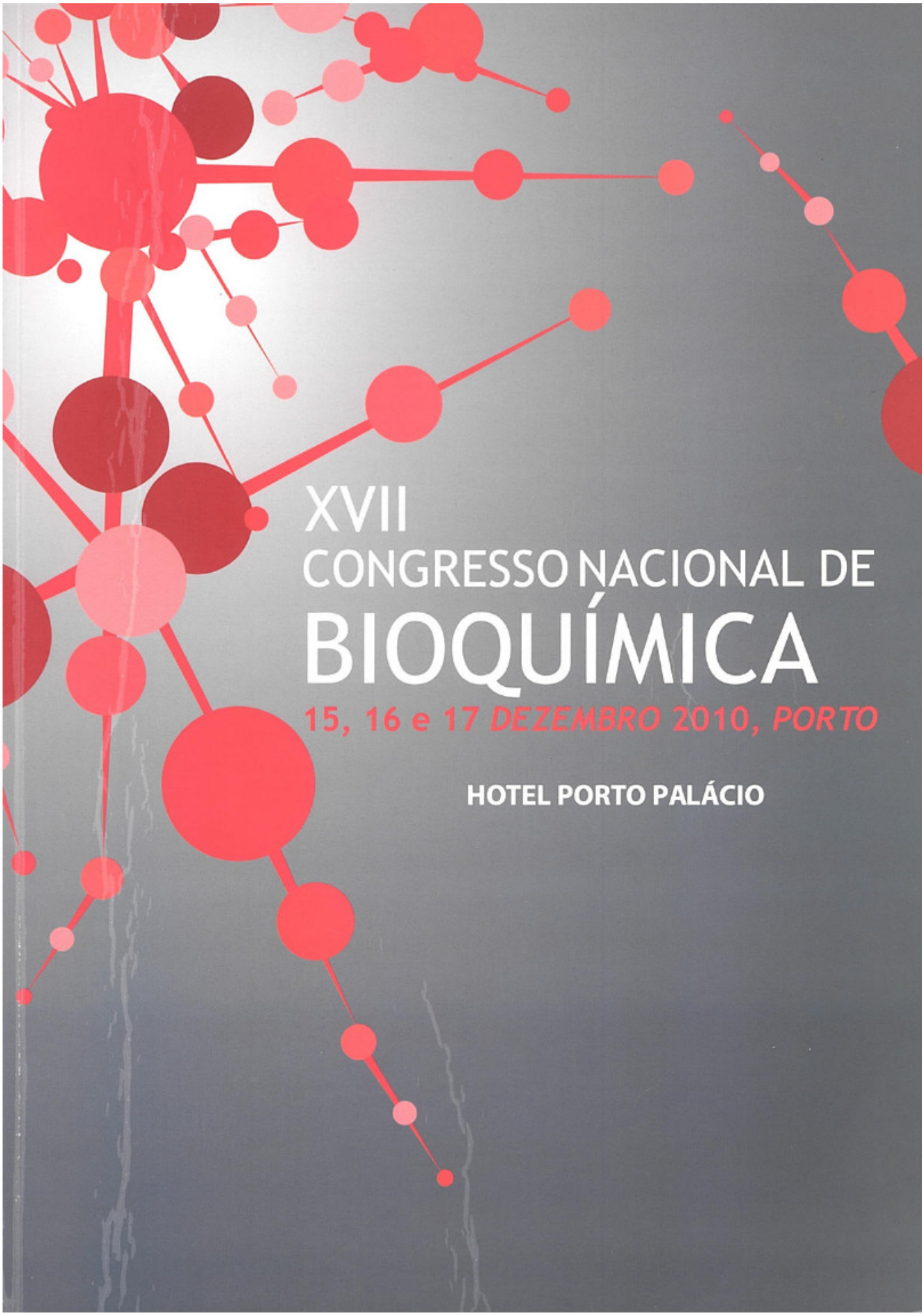
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CONGRESSO NACIONAL DE
BIOQUÍMICA
15, 16 e 17 DEZEMBRO 2010, PORTO
HOTEL PORTO PALÁCIO

posttranslational modification, protein turnover, chaperones were also detected (20%). Interestingly, several proteins (12%) related to the MAP1 (Major Antigenic Protein 1) that is thought to play a major role in the infection process were also detected. This study brings new insights on ER elementary bodies' biology, shedding light on proteins that might be essential for ER infectivity, contributing to possible vaccine development.

POSTER PRESENTATION (P C3)

Fragile X Mental Retardation Protein: broadening the possibilities for studying Fragile X Syndrome

Bárbara Oliveira[1,2]; Isabel Marques[1]; Joana Loureiro[1,3]; Rosário Santos[1]; Paula Jorge[1]

[1] Unidade de Genética Molecular – Centro de Genética Médica Jacinto de Magalhães, INSA; [2] Instituto Politécnico de Saúde do Norte, CESPU; [3] Faculdade de Ciências da Universidade de Lisboa.

The presence of chromosomal fragility in locus FRAXA, located at Xq27.3, is directly related with Fragile X Syndrome (FXS), where the main symptoms include intellectual and emotional disabilities. The main cause of this monogenic disorder is the transcriptional silencing of the *FMR1* gene, due to an expansion of more than 200 CGG repeats, found in the 5'-untranslated region, and its consequent hypermethylation which extends to the promoter region. The diagnostic complexity of FXS is proportional to the heterogeneity underlying this disease. In situations that strongly suggest a clinical diagnosis of FXS, but in which the repetitive region is not expanded, studying the presence of the encoded protein has proved to be very helpful as a complement to the molecular diagnosis. The Fragile X Mental Retardation Protein (FMRP), a selective RNA-binding protein that negatively regulates local protein synthesis in neuronal dendrites, may be detected applying specific antibodies either by immunocytochemistry or Western Blot analysis.

The aim of the present work was to optimize such techniques, so as to complement the routine molecular procedures employed in prenatal and postnatal FXS diagnosis. In order to test the efficacy of the procedure, different types of biological samples were used, namely leukocytes from peripheral blood, human brain tissue, cultured amniocytes and chorionic villi. Additionally, slide preparation and detection method for immunocytochemistry, as well as protein isolation for Western Blot, were optimized resorting to several approaches. Both immunocytochemistry and Western Blot techniques allowed the detection of FMRP and were equally suitable. The advantages and disadvantages of the implementation of these techniques in terms of laboratory workflow and specimen type as well as in diagnostic and research context are discussed herein.

POSTER PRESENTATION (P C4)

Runx3 promoter analysis and expression patterns in tissues and during development of zebrafish

Brigite Simões[1], N. Conceição[1], R. Kelsh[2] and M.L. Cancela[1]

[1] Department of Biomedical Sciences and Medicine and CCMAR, University of Algarve, Faro, Portugal; [2] Department of Biology & Biochemistry, University of Bath, Bath, United Kingdom

Runx genes encode a family of proteins defined by the highly conserved Runt DNA-binding domain. Studies in several organisms have shown that these transcription factors regulate multiple aspects of embryonic development and are responsible for the pathogenesis of several human diseases. In zebrafish, a *runx3* orthologue was identified and three different splice variants, encoding 2 different protein isoforms, Runx3-Shorter and -Longer, were described but no functional studies reported. Here we report the cloning of the different *runx3* transcripts and their temporal expression throughout different stages of development, from embryonic to adult using RT-PCR analysis. To determine the expression pattern of *runx3*, mRNA *in situ* hybridisation in whole zebrafish embryos and on sections was performed and analyzed by fluores