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Relatório Final

Ação imunomoduladora da própolis sobre monócitos de gestantes portadoras de pré-eclâmpsia e células endoteliais de veia umbilical humanas (HUVECs)

Immunomodulatory action of propolis on monocytes of pregnant women with preeclampsia and on human umbilical vein endothelial cells (HUVECs)

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AÇÃO IMUNOMODULADORA DA PRÓPOLIS SOBRE MONÓCITOS DE GESTANTES PORTADORAS DE PRÉ-ECLÂMPSIA E CÉLULAS ENDOTELIAIS DE VEIA UMBILICAL HUMANAS (HUVECS)

Relatório de Pós-doutorado realizado na Universidade Estadual Paulista (UNESP), Instituto de Biociências de Botucatu.

Supervisor Profº.Titular José Maurício Sforcin

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PREFÁCIO

O presente documento corresponde ao relatório final da bolsa de pós-doutorado referente à pesquisa intitulada *"*Ação imunomoduladora da própolis sobre monócitos de gestantes portadoras de pré-eclâmpsia e células endoteliais de veia umbilical humanas (HUVECs)". O relatório está estruturado em duas partes, junto às quais são apresentados integralmente os resultados obtidos durante o desenvolvimento do projeto.

O capítulo I apresenta o manuscrito intitulado "Brazilian green propolis exerts anti-inflammatory effects on monocytes from women with early- and late-onset preeclampsia", submetido à publicação no periódico *Journal of Pharmacy and Pharmacology*. Os resultados descritos neste artigo demonstram que o extrato de própolis verde brasileira exerceu efeito anti-inflamatório significativo sobre monócitos de mulheres com pré-eclâmpsia (PE), suprimindo vias pró-inflamatórias e promovendo respostas anti-inflamatórias e antioxidantes. Esses achados sustentam seu potencial como uma terapia adjuvante para modular o perfil inflamatório característico dessa importante síndrome da gestação, especialmente nas gestantes portadoras de PE de início precoce.

O capítulo II apresenta os resultados relacionados aos efeitos do extrato de própolis verde brasileira sobre células endoteliais humanas (HUVECs), após exposição ao plasma de gestantes com PE e aos padrões moleculares associados a dano (DAMPs) HMGB1 e Hsp70. Os resultados deste estudo inédito demonstram que o extrato de própolis verde brasileira exerce efeitos benéficos significativos sobre diversos marcadores associados à fisiopatologia da PE, incluindo a disfunção endotelial, estresse oxidativo, o desequilíbrio angiogênico e a inflamação estéril induzida por DAMPs. Ao modular a expressão de moléculas de adesão, reduzir a produção de espécies reativas do oxigênio (ROS), equilibrar os níveis de VEGF e endoglina solúvel e, atenuar a liberação de citocinas pró-inflamatórias como IL-6 e IL-8, a própolis demonstrou um promissor efeito imunomodulador e antioxidante. O manuscrito correspondente está em fase de elaboração, seguindo as diretrizes do periódico *Phytotherapy Research*, para submissão em breve.

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