

CHAPTER 39

MICROBIOLOGY

Doctoral Theses

459. DIWAKAR KUMAR
**Cloning and Characterisation of DNA Replication Protein
ORC1 in Leishmania.**
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Abstract

The present study focuses on *Leishmania* promastigotes. The promastigotes have been cultured in suitable medium in the laboratory and have been analyzed and characterized for ORC1 expression and behavior. The ORCs in higher eukaryotes are the first protein to recognise origin DNA, and they serve as a nucleating centre for the assembly of pre-RCs. The characterization of ORC1 is one of the first steps in examining DNA replication in *Leishmania*.

Contents

1. Introduction and review of literature. 2. Materials and methods. 3. Results and discussion. 4. Cloning of *Leishmania* ORC1 and characterization of the recombinant ORC1. 5. Expression and characterization of *Leishmania donovani* ORC1 in *Leishmania* promastigotes. 6. Exploring replication origin in *Leishmania* the search for the rDNA origin. Bibliography and Appendix.