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Dendritic cells challenged with *paracoccidioides brasiliensis* promote T_{reg} cell response

Reginaldo Keller Fernandes, Daniela Ramos Rodrigues, Ivy Rafacho Vieira, Graziela Gorete Romagnoli, João Pessoa de Araújo Júnior, Ramon Kaneno and Ângela Maria Victoriano de Campos Soares
Universidade Estadual Paulista, Brazil

Paracoccidioidomycosis is a systemic mycosis, endemic to most Latin American countries, especially in Brazil, whose etiologic agent is the thermo dimorphic fungus of the genus *Paracoccidioides*, comprising cryptic species of *Paracoccidioides brasiliensis* (Pb), S1, PS2, PS3 and *Paracoccidioides lutzii*. The consequences of the fungus interaction with cells of the innate immune response, such as dendritic cells (DCs), highlighting the ability of these cells to instruct the adaptive immune response are not fully understood. In a previous study we found that human monocytes derived DCs fail to adequately mature in response to Pb. Thus, we aimed to evaluate whether these cells are able to induce CD4 proliferation and what is the predominant profile of the proliferated cells. Human DCs obtained from *in vitro* differentiation of monocytes were challenged with more (Pb18) and less virulent (Pb265) fungus strains during 48 hours, followed by co culture with CD4⁺ cells by 48 hours to 120 hours. Phytohemagglutinin (PHA) was used as positive control to CD4⁺ cells proliferation. Our results showed which dendritic cells challenged with *Paracoccidioides brasiliensis* induce T_{reg} response. These findings may provide novel information for the understanding of the complex interplay between the host and this fungus.

Biography

Reginaldo Keller Fernandes has completed his Master's degree from Universidade Estadual Paulista and currently pursuing his Doctoral studies at the same university. He is studying Immunology of Paracoccidioidomycosis. He has also published 5 papers in reputed journals.

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