



Tipo	Periódico
Título	The role of annexin A1 in Candida albicans and Candida auris infections in murine neutrophils
Autores	José Marcos Sanches, Luana Rossato, Izabella Lince, Anna Maria Alves de Piloto Fernandes, Gustavo Henrique Bueno Duarte, Alex Aparecido Rosini Silva, Andreia de Melo Porcari, Patrícia de Oliveira Carvalho, Cristiane Damas Gil
Autor (es) USF	Anna Maria Alves de Piloto Fernandes, Gustavo Henrique Bueno Duarte, Alex Aparecido Rosini Silva, Andreia de Melo Porcari, Patrícia de Oliveira Carvalho
Autores Internacionais	
Programa/Curso (s)	Programa de Pós-Graduação Stricto Sensu em Ciências da Saúde
DOI	<a href="https://doi.org/10.1016/j.micpath.2020.104689">https://doi.org/10.1016/j.micpath.2020.104689</a>
Assunto (palavras chaves)	Coinfection; Fungi; Immune response; Lipidomics; MAPK; Neutrophil
Idioma	Inglês
Fonte	Título do periódico: Microbial Pathogenesis ISSN: 0882-4010 Volume/Número/Paginação/Ano: Volume 150, 104689, 2021
Data da publicação	08/12/2020
Formato da produção	Impressa
Resumo	Annexin A1 (AnxA1) is an anti-inflammatory protein expressed in various cell types, especially macrophages and neutrophils. Because neutrophils play important roles in infections and inflammatory processes and the relationship between AnxA1 and Candida spp. infections is not well-understood, our study examined whether AnxA1 can serve as a target protein for the regulation of the immune response during fungal infections. C57BL/6 wild-type (WT) and AnxA1 knockout (AnxA1 <sup>-/-</sup> ) peritoneal neutrophils were coinfecting with Candida albicans or Candida auris for 4 h. AnxA1 <sup>-/-</sup> neutrophils exhibited a marked increase in cyclooxygenase 2 (COX-2), phosphorylated extracellular signal-related kinase (ERK), p-38, and c-Jun N-terminal kinase (JNK) levels after coinfection with both Candida spp. A lipidomics approach showed that AnxA1 deficiency produced marked differences in the supernatant lipid profiles of both control neutrophils and neutrophils coinfecting with Candida spp. compared with WT cells, especially the levels of glycerophospholipids and glycerolipids. Our results showed that endogenous AnxA1 regulates the neutrophil response under fungal infection conditions, altering lipid membrane organization and metabolism.
Fomento	