

ANTIMICROBIAL AND ANTIBIOFILM ACTIVITY OF MARINE-DERIVED FUNGI

Marina Scopel^{1,2}, Alexandre José Macedo^{1,2}, Amélia Teresinha Henriques¹
¹Faculdade de Farmácia, ²Centro de Biotecnologia, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil

The increasing of antimicrobial resistance and lack of new antimicrobial drugs lead to the need for the discovery of novel bioactive molecules. The chemical diversity of secondary metabolites reported to date has shown that marine microorganisms are an excellent resource for the discovery of potential new drugs. This study aim to investigate the antimicrobial and antibiofilm potential of fungi associated with marine organisms. As producer source of compounds, 42 fungi associated to marine organisms from South Brazil coast were isolated. Up to now the microorganisms were cultivated for seven and fourteen days in Sabouraud broth and separated by vacuum filtration in mycelia and liquid medium. The antimicrobial activity was evaluated using all 84 liquid medium against *Staphylococcus epidermidis* ATCC 35984, *Pseudomonas aeruginosa* ATCC 27853 and *Candida albicans* clinical isolate. For antibiofilm activity 17 samples were tested by the cristal violet method, using *S. epidermidis* ATCC 35984 and *P. aeruginosa* ATCC 27853 as biofilm model bacteria. A preliminary result shows important antibacterial activity of three liquid medium against *S. epidermidis* and five for *P. aeruginosa*. At least nine liquid medium present activity upon the formation, as well as for the degradation of the previously formed *S. epidermidis* biofilm. At this time, the separation of the active compounds is being performed.

Keywords: antimicrobial, antibiofilm, marine-derived fungi.

Supported by: CNPq