**Evaluation of the bioactive potential of polar cyanobacterial strains from BCCM/ULC**

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Antibiotic and antifungal resistance has become a major public health problem worldwide, with significant clinical and economic consequences. Over the past few years, some publications have highlighted cyanobacteria isolated from extreme environments as a promising source of bioactive compounds. Biondi et al. (2008) tested methanolic extracts obtained from 48 polar strains available at the BCCM/ULC Culture Collection, from which 17 proved to be bioactive against *Escherichia coli*, *Aspergillus fumigatus*, and *Cryptococcus neoformans*. Accordingly, as a follow-up of Biondi’s work, an evaluation of 41 polar cyanobacterial strains from the BCCM/ULC was undertaken. Briefly, the selected cyanobacterial strains were grown, and the obtained biomasses were frozen, freeze-dried and used for methanolic extraction. The methanolic extracts were then tested against *E. coli* ATCC25922, *Staphylococcus aureus* ATCC25923 as well as *Candida albicans* IHEM10266 and *A. fumigatus* IHEM28083. The results of this study showed that the methanolic extracts from the strains *Phormidesmis priestleyi* ULC007 and *Microcoleus attenuatus* ULC371 demonstrated significant antifungal activity against *C. albicans* and *A. fumigatus*. These results open up new prospects for further research aiming at isolating and identifying the compound(s) responsible for the observed antifungal activity. In addition, genomics studies are also promising for the search of the operons/clusters related to the production of these compounds, especially for the strain *P. priestleyi* ULC007, which was already sequenced. In this context, the BCCM/ULC Collection, that harbors more than 400 cyanobacterial strains (~160 from polar regions), reinforces its potential as an important source of cyanobacterial diversity for taxonomic, genomic, and applied research.