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A fruit rind extract from *Garcinia mangostana* Linn. exhibits anti-microbial activity against *Pythiuminsidiosum*, an oomycete microorganism causing human pythiosis

Nujarin Jongruja
Mahidol University, Thailand

Pythium insidiosum is categorized into a group of oomycetes, filamentous eukaryotic microorganisms. *P. insidiosum* is the only species reported as a human and animal causative pathogen. The disease caused by the pathogen is called pythiosis, usually found over the world in tropical or subtropical areas. The pythiosis is one of life-threatening infectious disease, because it may lead to the loss of infected tissues, organs or mortality. Although the disease severity is relatively high, effective and suitable medicines remain unavailable. To find the promising active medicines for pythiosis treatment, the extracts from *Garcinia mangostana* Linn fruit rind were prepared and characterized for the antimicrobial activity against various isolates from a range of sources and countries of *P. insidiosum*. The present study indicates that extracts from the fruit rind exhibited the inhibitory activity against isolates of *P. insidiosum*, but a sensivity of each isolate to the extracts is different from one another. When the concentration of the extracts was increased beyond the minimum inhibitory concentration, the extracts also showed the cidal activity to *P. insidiosum*. Results from agar well diffusion and disc diffusion assays also suggest that the extracts from *Garcinia mangostana* Linn fruit rind might be effective and promising for future studies as one of medicines for pythiosis treatment.

Biography

Nujarin Jongruja has completed her undergraduate degree (the first class honor with a gold medal) in Microbiology from King Mongkut's University of Technology, Thonburi. Then, she continued her education and moved to Osaka University, Japan with a 5-year grant from Japanese Government. Her works in Japan were focused on advanced biotechnology, especially protein science. During her doctoral study, she was granted an internship funding at NIH, Maryland, USA. She has completed her PhD at the age of 28 and started the academic career as a researcher in her home country at Mahidol University, Thailand.

nujarin.jon@mahidol.ac.th, ploymicro@hotmail.com