Recovering Polysaccharide including Beta-glucan from *Grifola frondosa* by Pressurized Hot Water

Yeon-jin Cho, P.S. Saravana, and Byung-soo Chun*

Department of Food Science and Technology, Pukyong National University 45 Yongso-ro, Namgu, Busan, 48513, Korea, * bschun@pknu.ac.kr

Grifola frondosa was used a medicine especially in China and Japan. This is potentially good sources of polysaccharides including beta-glucan which is known as being able to enhance immune system. In addition, many studies have shown that it has antioxidant, anti-cancer and antihypertensive activities. In this study, *G. frondosa* was treated with pressurized hot water (PHW) at temperature range of 100-275°C, while pressure vary between 10 to 60 bar for the desired temperature studied. Conventional extractions such as organic solvent and hot water extraction were conducted to compare with PHW extraction. The obtained extract of *G. frondosa* by PHW and conventional extraction will be investigated for their total polysaccharides, beta-glucan contents, antioxidant activity, and antihypertensive activities. These results will be used a basis to show extract of *G. frondosa* has a good potential for its use in food and cosmetic industry.