

4th International Conference and Exhibition on

Food Processing & Technology

August 10-12, 2015 London, UK

Anti-aging effect of wine constituent and the utilization of wine compression residue

Akiyoshi Sawabe¹, Ryuji Takeda¹, Haruki Kawamura¹, Hirokazu Yoshida¹, Akira Iida¹, Norimasa Hamahara², Sadao Komemushi³, Kohei Kawakami⁴, Miki Tongu⁴ and Takaya Yamada⁴

¹Kinki University, Japan

²Municipal Kobe Winery, Japan

³Osaka City University, Japan

⁴Shimane University, Japan

Health food market and cosmetics market accomplish sudden growths recently as we have a high interest for health. Also, the use of the natural system material for the synthetic pathway material is demanded from a naturalism-oriented surge and as for the search of new material, it is with an important research theme. Therefore we search for the constituent derived from nature for the purpose of the anti aging. Wine compression residue is the most important byproduct of the wine industry being considered a good source of bioactive compounds. In this study, we focused on the wine compression residue of industrial waste and examined the AGE (advanced glycation end product) inhibition test and atherosclerosis inhibitory effect of wine compression residues on rat vascular smooth muscle cells and apolipoprotein E-deficient (ApoE) mice as anti-aging effect. Cabernet Sauvignon and Merlot showed the highest anti-glycation activities and then more than 50% inhibition on rat vascular smooth muscle cells. The inhibitory activity on rat vascular smooth muscle cells of 3'-methoxy-procyanidin B2 and kaempferol was strongest. In addition, we have performed in ApoE mice treated or not with 3'-methoxy-procyanidin B2 and kaempferol (50 mg/kg, intragastrically) for 14 weeks. After the breeding end of the study of 14 weeks, we measured LPO and TG in liver and pars thoracica aortae lesion area, aortic arch intimal thickening degree. In conclusion, it might be used as health food or cosmetics because remarkable anti-aging which had atherosclerosis inhibitory effect was found from the wine compression residue of industrial waste.

Biography

Akiyoshi Sawabe is an Associate Professor at Department of Applied Biological Chemistry, Faculty of Agriculture, Kinki University, Japan. He worked on his PhD from 1985 to 1990 in the field of natural products chemistry under the direction and Professor Yoshiharu Matsubara of Kinki University. He has published more than 100 papers and is the Director and Editorial Board Member of *American Society for Enology and Viticulture, Japan Chapter*.

sawabe@nara.kindai.ac.jp

Notes: