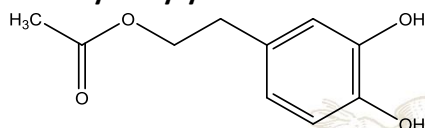
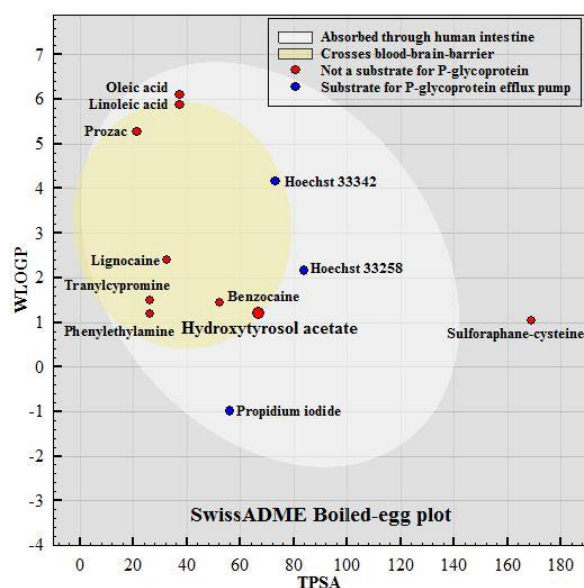


*OliveNet™ Newsletter***Molecule of the month****Hydroxytyrosol Acetate**

Although not as well characterized as the key structurally related compound, hydroxytyrosol, hydroxytyrosol acetate exhibits important biological effects. For example, antibacterial activity (Wei J et al. Nat Prod Res. 2017), and prevention of collagen-induced arthritis in an animal model of disease, have been observed (Rosillo MA et al. Mol Nutr Food Res. (2015)).



We analysed hydroxytyrosol using SwissADME software to produce the chart which indicates a prediction on whether the compound falls within the white circle (absorbed through human intestines), yellow circle (crosses the blood-brain-barrier), and whether it is potential substrate for the P-glycoprotein pump (red or blue). We show data for hydroxytyrosol acetate relative to a series of reference compounds that we chose. The results indicate that hydroxytyrosol acetate is predicted to be absorbed through human intestines, crosses the blood-brain-barrier, and is *not* a substrate for the P-glycoprotein pump.

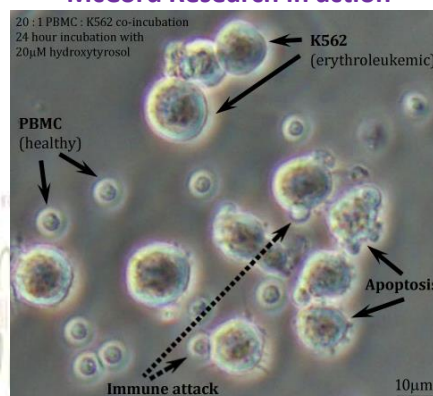
Julia Liang's recipe of the month**Lamingtons with olive oil**

Apart from being a talented McCord Research molecular modelling scholar, Julia Liang is an avid "foodie". This month Julia has prepared Lamingtons with olive oil – traditional sweets for Australia day and good any other day! For further details please see our [OliveNet Library Facebook page](#) and visit [Julia's Cooking Revista](#).



[Approximate calculations: Total EVVO = 80 mL (75 g); Serves 16. Per serve (2 pieces) = 400 calories (or 20% of 2,000 calorie diet), 9.4 g EVVO (or 18% of typical daily recommendation), ~2.4 mg olive polyphenols (assuming 250 mg/kg in average EVVO)].

*** All of Julia's recipes are tried and tested.**

McCord Research in action

Research from our Melbourne laboratory performed by Katherine Ververis shows that the key olive polyphenol hydroxytyrosol induces cell-death and apoptosis in human erythroleukemic K562 cells with minimal effects on normal peripheral blood mononuclear cells. Microscopic evaluation following co-incubation studies (20 PBMC : 1 K562) with cells treated with 20 μ M hydroxytyrosol for 24 hours, highlights apoptotic K562 cells (larger cells), and healthy, immunologically active PBMC.