



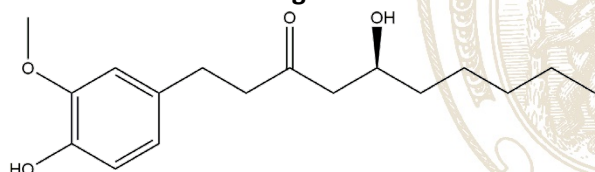
OliveNet™ Newsletters

OliveNet™ Newsletter

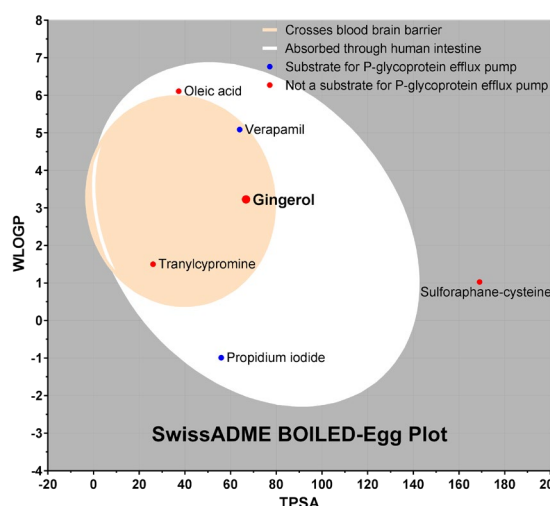
Welcome to the December issue of the OliveNet™ Newsletter! Thank you to our newsletter subscribers and followers on Facebook for being a part of the OliveNet™ Library community. We will continue with our monthly newsletters in 2020, and strongly encourage any feedback or contributions. We wish everyone a happy and safe holiday season!

Molecule of the month

Gingerol



Gingerol is a major compound found in ginger, responsible for its pungent flavour. It has a role as a plant metabolite, and has antioxidant and anti-inflammatory properties. Gingerol has been reported to target cell signalling pathways involved in the prevention of cancer and other chronic diseases, such as heart disease, diabetes, and asthma.



We analysed gingerol using SwissADME and the results indicate that gingerol is absorbed through human intestines, and is predicted to cross the blood-brain-barrier. The analysis indicates that gingerol is not a substrate for the P-glycoprotein pump, and was also shown to inhibit certain liver isoenzymes.

Julia Liang's recipe of the month

Olive oil gingerbread cookies

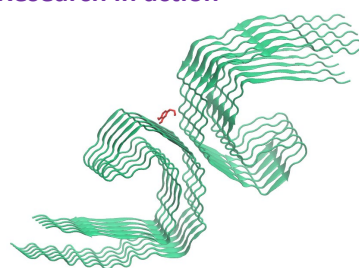
Apart from being a talented McCord Research molecular modelling scholar, Julia Liang is an avid "foodie". This month Julia has prepared olive oil gingerbread cookies – a classic Christmas treat. This traditional biscuit is prepared using an olive oil. The gingerbread cookies are soft, chewy, and full of spices.



[Approximate calculations: Total EVVO = 79 mL (73 g); Serves 20. Per serve = 32 calories (or 1.6% of 2,000 calorie diet), 3.7 g EVVO (or 7.3% of typical daily recommendation), ~0.9 mg olive polyphenols (assuming 250 mg/kg in average EVVO)]

For further details please see our [OliveNet Library Facebook page](#) and visit [Julia's Cooking Revista](#).

McCord Research in action



The tau protein is found in neurons of the brain and helps to stabilise microtubules that allow cells to function. In Alzheimer's disease, tau behaves differently and forms neurofibrillary tangles that disrupt cell communication in the brain. Molecular modelling performed by our team at RMIT University has examined the ability of compounds from the OliveNet™ Library to bind to tau. This image shows the olive compound hydroxytyrosol (red) docked to a paired helical filament of tau (green).