



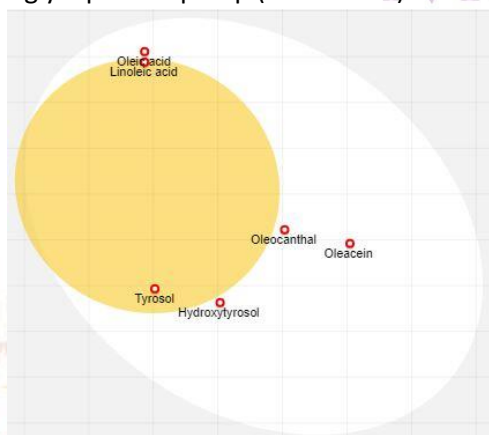
OliveNet™ Newsletter

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Welcome to our first issue of the OliveNet™ Library newsletter for 2018. To improve the quality and usefulness of our newsletter, we have enhanced original content which includes, Julia Liang's cooking revista, key data generated from our Melbourne laboratory predominantly from Katherine Ververis, and a SwissADME analysis from our team of molecular modelling scholars including. We hope you have a happy and prosperous New Year.

Molecule of the month

In a new development, each month, apart from a structure and brief description of an Olea-derived compound, we will perform a brief analysis using SwissADME software. The chart will indicate 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).



This month, we have analysed the seven compounds that we reviewed in previous newsletters. Apart from oleuropein (which is excluded due to size), the other compounds are predicted to be absorbed through human intestines (white circle). Similarly, apart from oleacein, the other compounds are within range of crossing the blood-brain-barrier, with tyrosol and linoleic acid clearly crossing (yellow circle). None of the compounds are predicted to be substrates for the P-glycoprotein pump, which pumps drugs out of cells (red markers).

Julia Liang's recipe of the month

Steak with olive tapenade

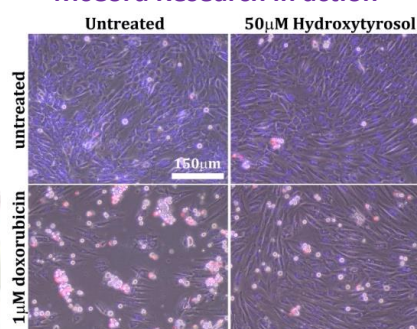
Apart from being a talented McCord Research molecular modelling scholar, Julia Liang is an avid "foodie". This month Julia has prepared steak with olive tapenade – a hearty main meal. For further details please see our [OliveNet Library Facebook page](#) and visit [Julia's Cooking Revista](#).



[Approximate calculations: Total EVOO = 30 mL (28 g), Black pitted olives = 200 g; Serves 4. Per serve = 215 calories (or 10.8% of 2,000 calorie diet), 7 g EVOO and 50 g olives (or 54% of typical daily recommendation), ~6.8 mg olive polyphenols (assuming 250 mg/kg in average EVOO and 100 mg/kg in black olives)].

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

McCord Research in action



Research from our Melbourne laboratory shows that the key olive polyphenol hydroxytyrosol protects cardiac myoblasts from the effects of doxorubicin. Doxorubicin is commonly used in cancer therapy and one of the major side effects is heart failure in some patients. In the example shown, rat myoblasts (H9c2) were visualised by live-cell microscopy (Olympus FSX microscope wide-field). Cell architecture is visualised by phase-contrast, cell nuclei are stained blue (DAPI), and dead cells are depicted with red (propidium iodide). Please note, these are experimental findings in cells treated in petri dishes; while encouraging the findings are experimental only and 1) should not be taken as health advice and, 2) not intended to inform medical practise.