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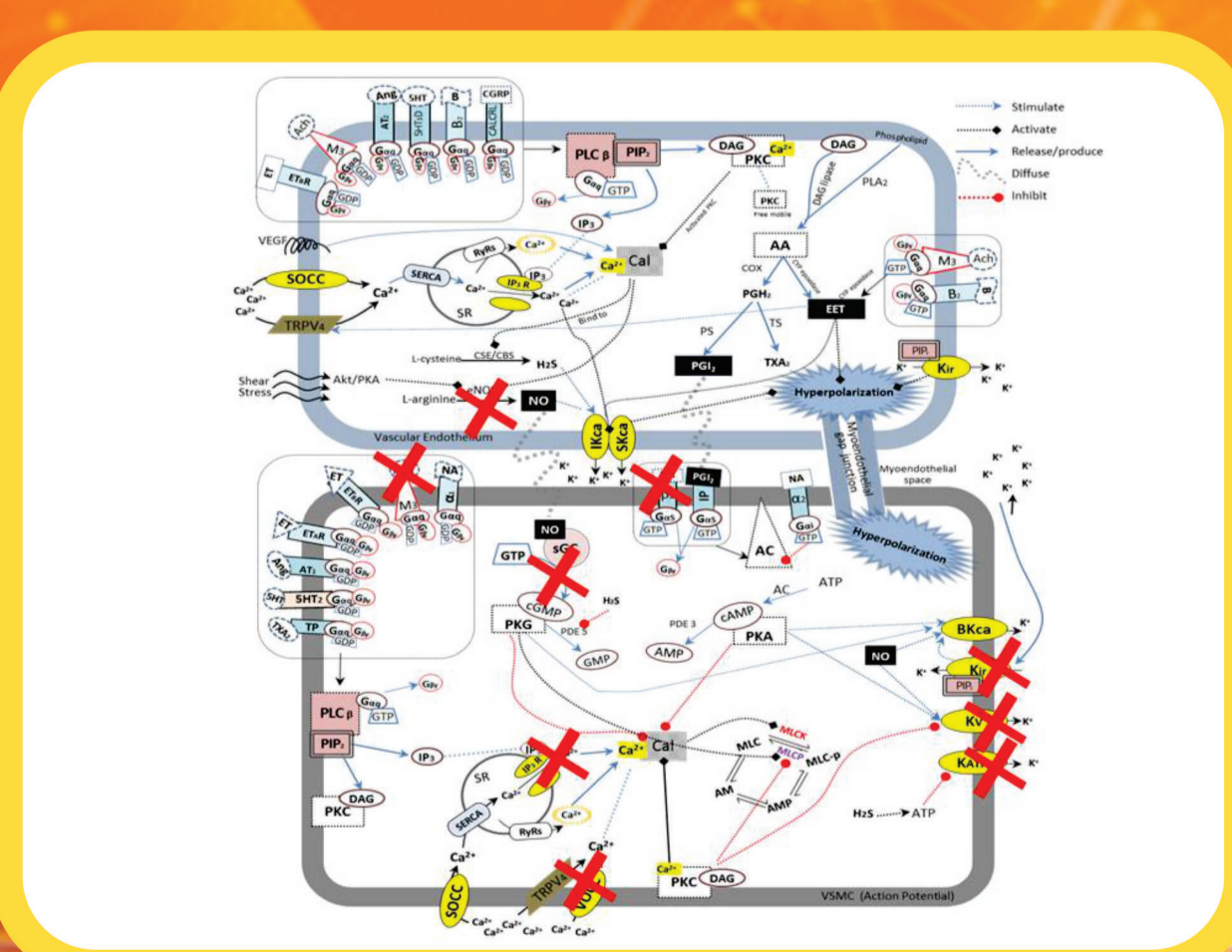
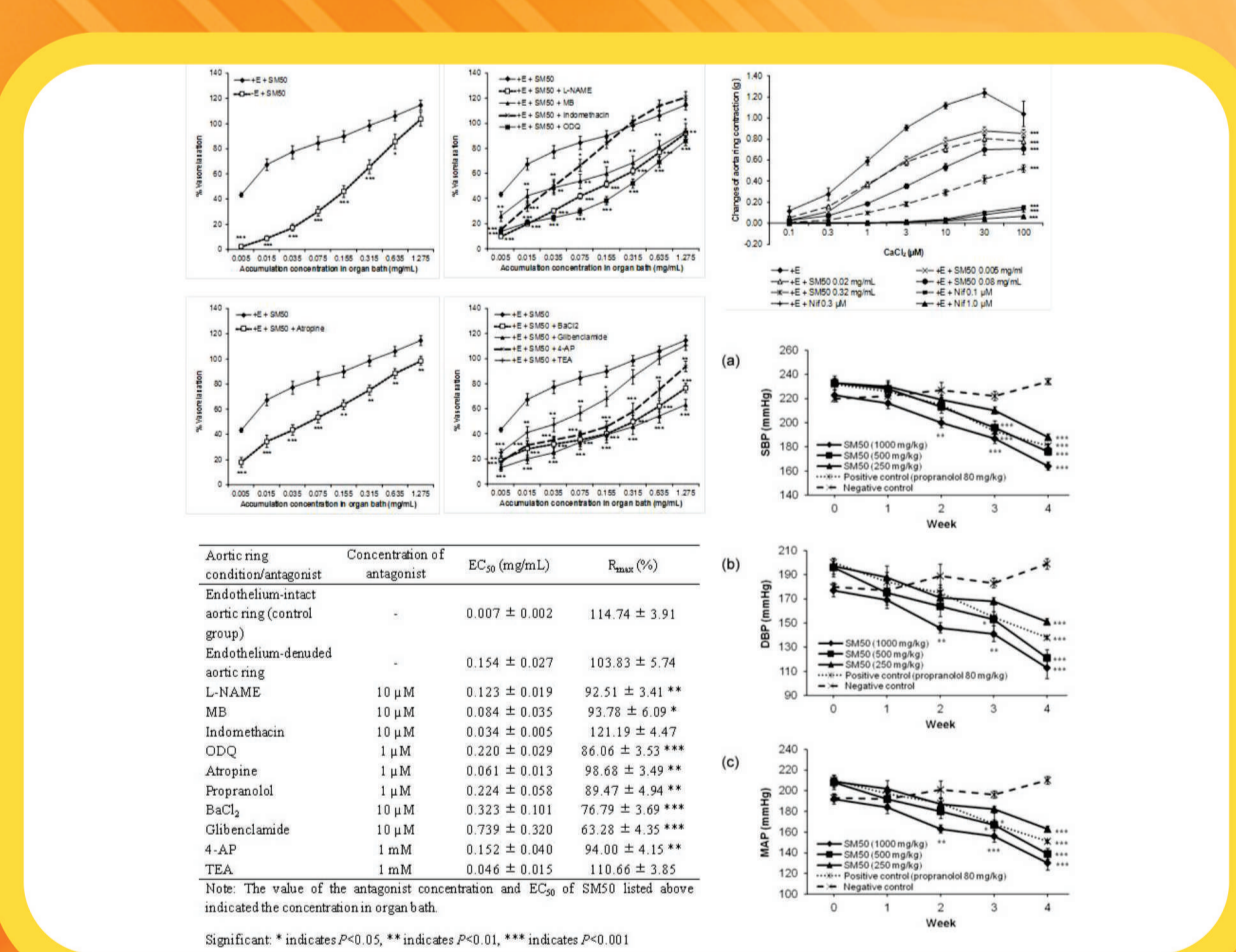
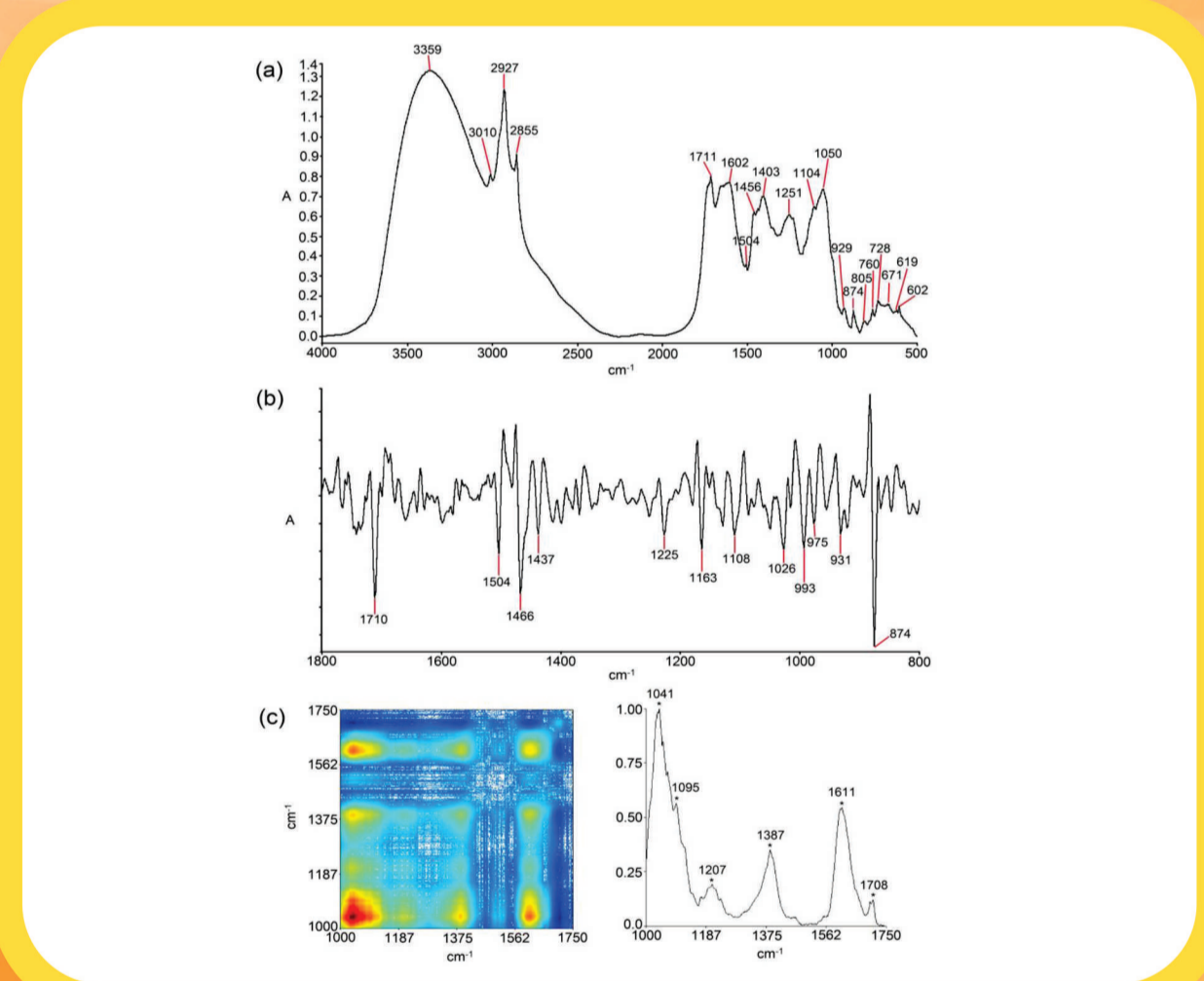
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▶ TRADE SECRET TS/IO/2019/033)



SKY FRUIT STANDARDIZED EXTRACT: A POTENTIAL NATURAL BLOOD PRESSURE LOWERING AGENT



Problem statement

Hypertension is an increasingly critical medical and public health concern. The prevalence of hypertension in Malaysian adults over the age of 18 has increased from 32.2% in 2006 to 32.7% in 2011. Therefore, current study aims to discover a new anti-hypertensive medicine by using Malaysian local herbs – *Swietenia macrophylla* King (Sky Fruit).

Novelty and Inventiveness

Sky Fruit was successfully proven in laboratory experiments to have the potential of becoming an effective blood pressure lowering agent or as treatment regimens for hypertension in the near future in human patients. Besides, it is set apart from other types of traditional medicine as one of the only Malaysian local herbs that is backed by scientific results and evidences to be an effective treatment for hypertension through recognized methodologies that gives accurate measurable output that can be used to make medical decisions for future industrial adaptation.

Applicability

Contrary to conventional western medications for hypertension that usually only triggers single pathway for treatment, Sky Fruit employs multiple pathways of mechanisms that dictate the vasculature to varying degree in the descending order of effectiveness from calcium and potassium channels, G-protein-coupled receptors, and followed by NO/sGC/cGMP signaling mechanism pathways. This holistic effect and no report of side effect or organ damage gives Sky Fruit the advantage to be the potential candidate for replacing current anti-hypertensive drug.

Product/ Technology Readiness

Sky Fruit can be readily made into various forms of consumables such as capsules, sachets or tea bags which proves its versatility and commercial readiness from product developmental standpoint.

Research Achievement

Outputs: scientific publication (3 ISI journals, 2 scopus journals), graduated a MSc student and 2 PhD students. This product is financially supported by USM-Bridging Grant (304/PFARMASI/6316009) and Fundamental Research Grant Scheme (FRGS) (1001/PFARMASI/8011030)

Intellectual Property

Trade secret protection under USM.

Commercialization Potential

Besides its anti-hypertension properties, Sky Fruit will lead the blood pressure medicine by setting an industry defining criteria for future drug discoveries such as multi-pathway efficacy and final product versatility to allow better treatment, lower product development costs and also minimal side effects. The demand for such a product has long been available and currently Sky Fruit seems like the only prospect that will be able to fulfill the gap alongside the golden opportunity in the timing of rising concerns over hypertension drug industry's multiple weaknesses.

Level of Impact

The field of traditional and complementary medicine will greatly benefit from these evidence based findings adhering to global scientific standards and bolster the Malaysian herbal medicine industry to compete at the international level.

Environmental Friendliness

Sky Fruit manufacturing protocol adheres strictly to Good Manufacturing Practices (GMP) as well as in compliance with all industrial-wide enforced environmental guidelines as suggested by the government.

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