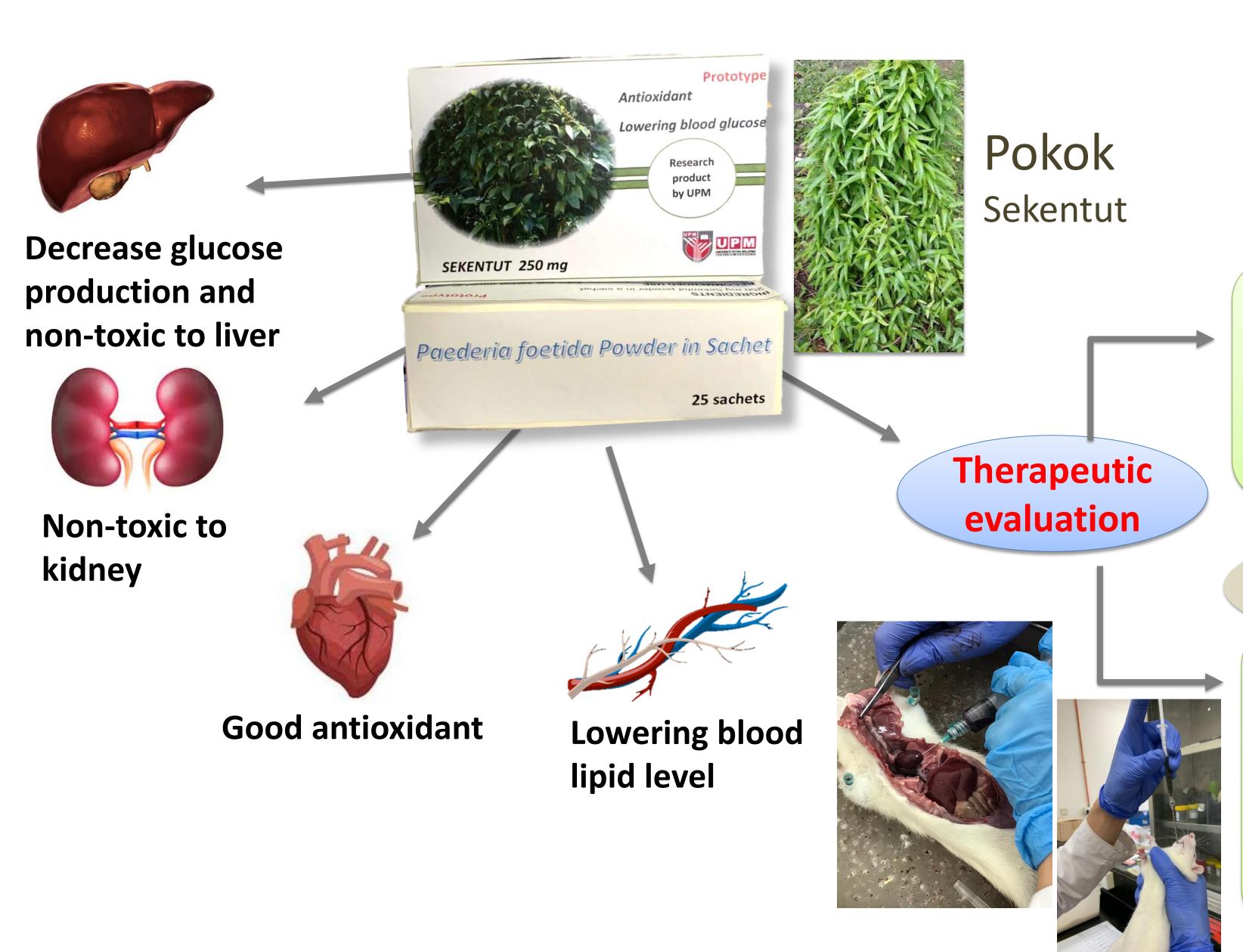


Standardized Paederia foetida (Pokok Sekentut) Extract

Natural Remedy for Type 2 diabetes

PATENT NO. PI2020000673



UV-Vis quantification 5.54% scopoletin in extract

Lab Assays (In vitro)

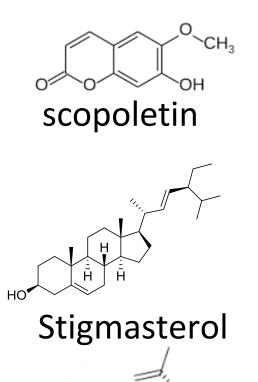
-antioxidant activity -α-amylase inhibition -α-glucosidase inhibition -DPP-IV inhibition

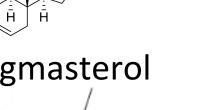
Animal Testing -4 weeks treatment (In vivo)

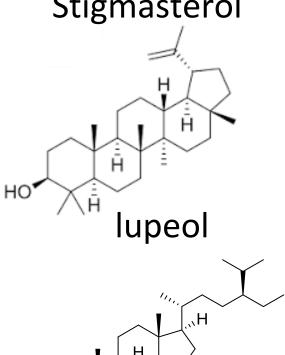
-High fat diet/ streptozotocin-induced diabetic rats model -blood glucose test -hematology test -oxidative stress test

ISSUE

Quantified bioactive compounds







γ-Sitosterol

healthline **Why So Many People with**

Hanya 40 peratus patuh makan ubat

WACANA SINAR SHORT 12 DISEMBER 2019

Dekan Fakulti Farmasi UiTM, Prof Dr Mohamed

petikan dari Wacana Sinar Live, Isu Harga Ubat

Mansor Manan berkata, hanya 40 peratus

pesakit patuh makan ubat dan ia sekali gus

dikeluarkan adalah sia-sia. Berikut adalah

menjadikan segala ubat-ubatan yang

Mahal: Siapa Dan Apa Penentunya?

HAZWAN MOKHTAR | 13 Disember 2019

Diabetes Stop Taking Metformin Written by Ginger Vieira — Updated on September 24, 2018

Sinar

Jumaat | 28 Ogos 2020

Researchers say metformin has the lowest adherence rate of any major diabetes drug. However, patients say there are ways to improve that



People who take the number one most commonly likely to stop taking their medication.

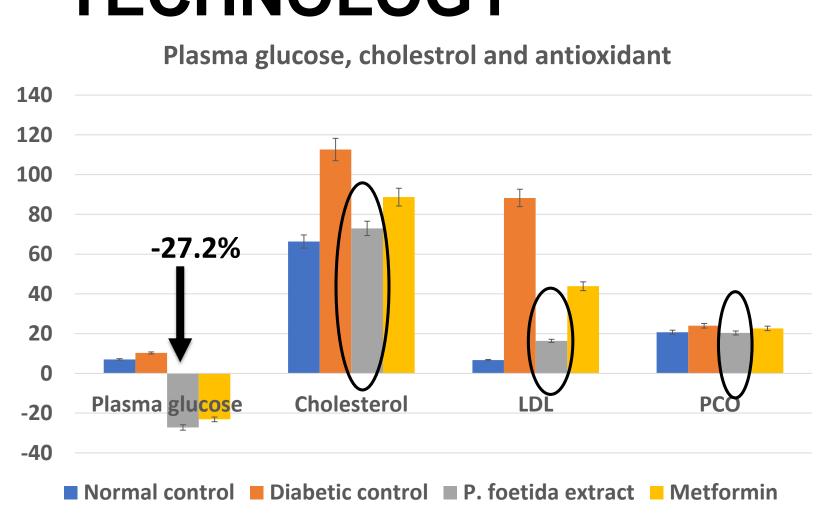
CURRENT ISSUES

- Non-compliance among diabetics on demographic and psychological and negative attitude (Journal of Family & Community Medicine, 2012)
- A group of chronic patients did not adhere to take medication (Berita Harian, 19th Jan. 2017)
- Only 40% of patients adherence to take medicine- (Sinar Harian, 13th Dec. 2019)
- Many people with diabetes stop taking Metformin (https://www.healthline.com/health-news/why-so-many-people-withdiabetes-stop-taking-metformin)

PROBLEMS WITH NON-ADHERENCE OF TAKING MEDICATION

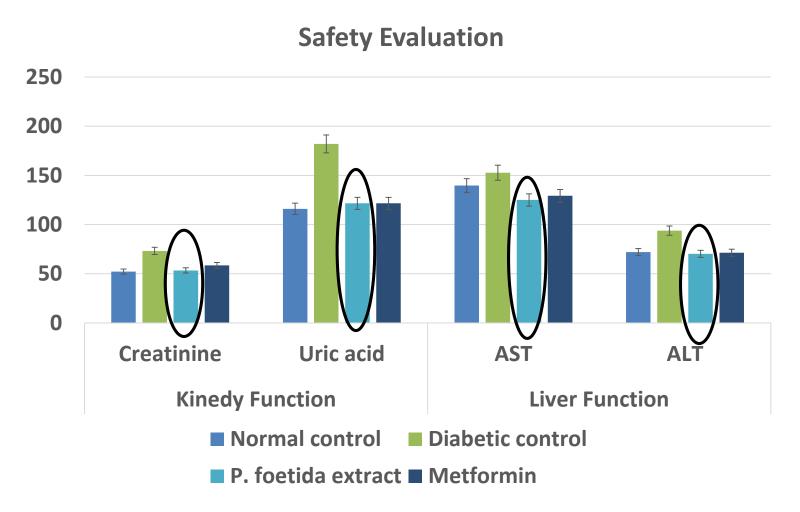
- 1. Side effects
- 2. Long duration of treatment
- 3. Low education level
- 4. Lack of finances

TECHNOLOGY



50 mg/kg *P. foetida* extract lower the blood glucose by 27.2%, cholesterol, LDL, and oxidative stress of protein carbonyl content.

Current stage: TRL 4 (Lab validation)

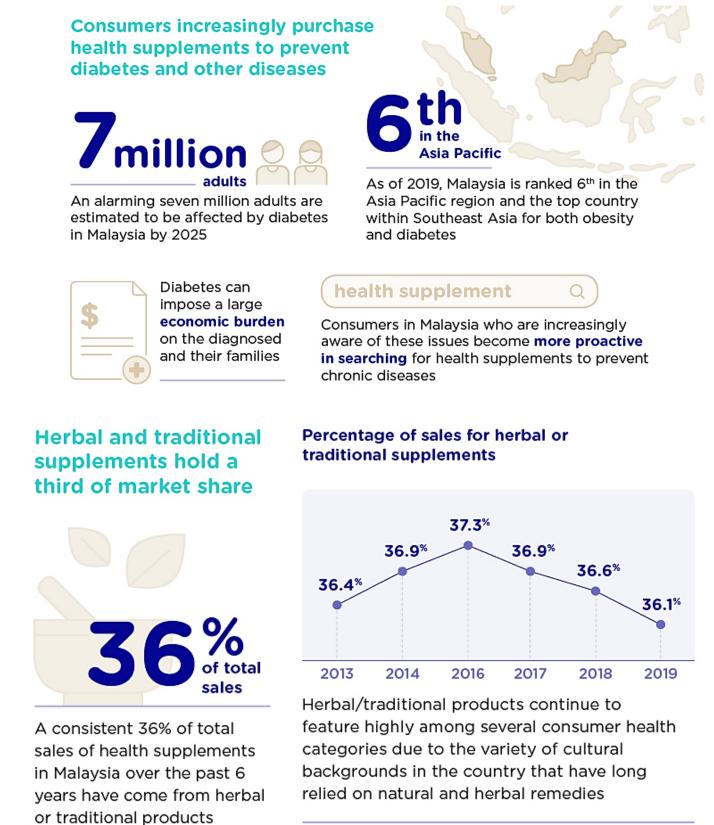


50 mg/kg *P. foetida* extract lower the creatinine and uric acid. Lower AST and ALT in *P. foetida* extract showed the lower inflammation and damaged cells compared to diabetic control.

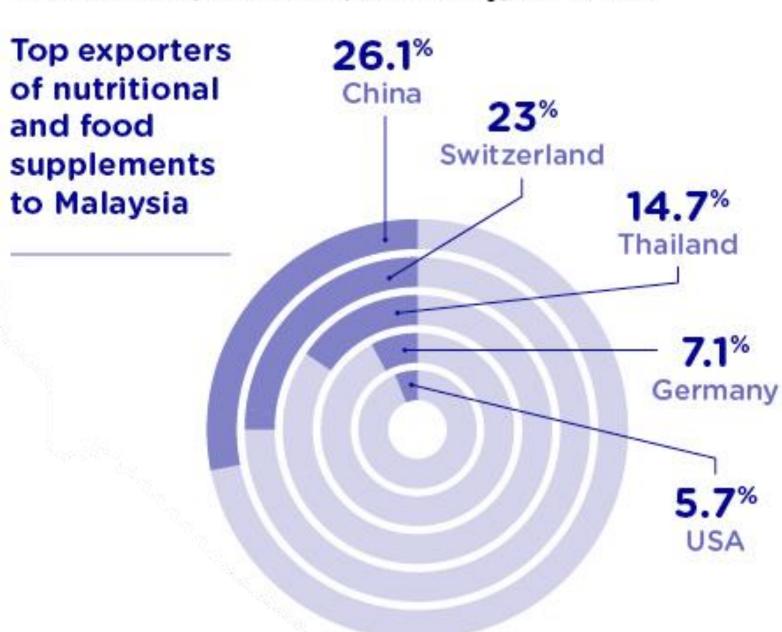
ADVANTAGES - Competitive Matrix

Properties		UPM-PF	Metformin	Product -X
Lowering blood glucose		✓	✓	NA
Antioxidant		\checkmark	\checkmark	NA
Safety Evaluation	Liver	\checkmark	\checkmark	NA
	Kidney	\checkmark	✓	NA
Known bioactive markers		\checkmark	\checkmark	X
Effective (low dosage)		√ (250 mg)	X (500 mg)	X (591 mg)
Low cost		\checkmark	X	\checkmark
Green technology		√	NA	\checkmark
Plant-based		✓	X	✓

MARKET POTENTIAL



In 2017, China was the largest exporter of nutritional and food supplements to Malaysia holding 26.1 percent market share, followed by Switzerland, Thailand, G y, and USA



www.sciencepark.upm.edu.my



Project Leader

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