The healing powers of venom

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***‘Ask the plants of the earth, and they will teach you.’ Job 12:8***

Scorpion venom: BLZ-100, derived from scorpion venom (aka ‘tumor paint’) from a neurotoxin. When linked to fluorescent dye doctors can visualize and remove tumor masses from the brain.

Bee venom used by ancient Greeks to treat gout. Snakes and venom associated with cures of disease and still the symbol of medicine.

Venoms target and alter key molecules in human cells. Chemical engineers now bioprospect for potent chemicals to counter disease.

1981- Brazilian jararaca viper venom was known to cause lethal drop in blood pressure in victims. Became source of Captopril used in treating severe hypertension.

1990’s- Endocrinologists discovered exendin- 4 in the venom of Gila monsters in Arizona. This compound marketed as Byetta, acts to cause a slow release of insulin by humans only when blood sugar is very high. Hence no danger of hypoglycemia (low blood sugar) and the molecule effect is long acting, unlike synthetic insulin.

Now released as Bydureon, Tanzeum and Trulicity. (Concern re side effects- inflammation of pancreas.)

Exendin-4 may also stimulate neuron growth and is now studied for Alzheimer disease.

2016- Venom from the shrew blocks TRPV6, a cancer calcium channel; may starve cancer cells.

Erectile dysfunction- Brazilian wandering spider venom may help.

Bee venom- for wrinkles, may be superior to botox.

***“ Each venomous animal is an artisanal mixologist,***

***crafting chemical cocktails that contain thousands of ingredients.***

***The wealth of potential in venoms- each with its unique recipe-***

***is hard to overstate. That is another reason to preserve our planet’s***

***endangered ecosystems. If venomous creatures become extinct, millions***

***of lifesaving drugs may slip through our fingers.”***