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Propolis: Ecological Medicine

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Propolis fulfils a threefold immune defence role for the superorganism that is the honeybee colony providing physical structural defence for the hive, social hygiene within the hive and internal pharmacological protection for the individual honeybee.

The honeybee collects resins from local plants and trees, adding wax to it from its own body and in so doing transforms the whole into the highly complex substance we know as propolis.

Global research into the relationship between the geographic origin of propolis and its chemical and biological properties illustrates how honeybees are effectively collecting a 'fingerprint' of the local plant populations' immune defence response and converting it into its own unique and individual immune defence system protecting the colony against its local ecological challenges.

Research into the use of propolis as a medicine for human beings is illustrating how propolis from specific geographical locations may also be of particular benefit in treating the diseases in humans within the same local ecology e.g. our analysis of propolis from South Cameroon from an area where sleeping sickness was prevalent in the human population showed the presence of the anti-trypanosome chemicals. This discovery has stimulated the creation of a Global Propolis Survey which we hope will be able to link the effectiveness of local propolis to disease patterns within human beings in those areas.

Ancient concepts of medicines which believed that locally available plants and bee products were most appropriate for the treatment of local diseases in human beings are emerging again as evidence based front runners in the battle against the pandemic of auto immune disease.

These developments have the capacity to revolutionize our concepts of medicine. However we must be aware that should these new natural medicines come from the living world. Without strong measures to ensure a sustainable relationship between human beings and the honeybee both may end up without benefit.

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