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Simulating wild animal's self-medication using human diseased-animal models to search new therapeutics: A novel insight on how to discover pharmaceuticals from natural medicines**Wael Ebied and Tahany Fouad**
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People have tame animals and domesticated plants for more than 10,000 BC, utilizing specific breeding or simulated selection (as stood out from natural selection). The procedure of selective breeding is the most established type of hereditary adjustment by people, in which organisms with sought traits (and in this way with the desired genes) are utilized to breed the next generation to come keeping in mind living organisms without the coveted characteristic are not reproduced. A genetically modified organism (GMO) is any life form whose genome has been adjusted utilizing genetic engineering procedures. GMOs are utilized as a part of biomedical research, development of pharmaceuticals and testing gene therapy. The expression GMO does not generally infer, but rather can incorporate, focused on insertions of genes from one species into another. Genetically modified animals currently being developed can be used for research concerning human diseases so as to develop a model animal with the desired diseases to be studied. Transgenic animals are used as experimental models to demonstrate phenotypic aspects and for testing drugs in biomedical research. Genetically engineered animals are turning out to be more crucial to the revelation and improvement of cures and medicines for some genuine illnesses. Zoopharmacognosy is a behavior in which animals perform self-medication through selecting and ingesting or topically applying plants, soils, insects and psychoactive drugs to treat or prevent illnesses. Animals ingest non-consumable materials such as clay, charcoal and even toxic plants, apparently to prevent parasitic infestation or poisoning. Self-medication in wild animals remains a controversial subject because evidence is in most cases are circumstantial or anecdotal, however, there are many reported examples. The techniques by which living organisms self-sedate fluctuate, however, can be arranged by as prophylactic (protection before contamination or harming) or therapeutic (after disease, to battle the pathogen or harming). Although the basic mental and physiological mechanisms of such learned self-medicating behavior are vague, its versatile esteem is proposed to be far reaching, incorporating diseased-laboratory animals. Considering the development of parasites and pathogens resistance to manufactured medications, the investigation of animal self-medication and ethno-medicine offers a novel line of examination to give ecologically-sound strategies to the treatment of diseases utilizing plant-based meds. The objective of this research article is to investigate how human diseased-animal models will keep themselves well in an artificial wild and what we can learn from their self-medication approaches in screening new therapeutics for human diseases. The current proposal is to test the hypothesis that zoopharmacognosy is operational with model organisms in artificial wild life. Once a molecular target of disease is revealed, one can use this perspective for identifying active ingredient(s) from natural medicine in new drug discovery or novel therapeutic techniques. The generation of transgenic animals by biotechnological techniques will provide human disease models for screening drugs of clinical interest with the help of zoopharmacognosy. Some of the compounds have been identified by zoopharmacognosy were found to kill parasitic worms and some other chemicals may be useful in fighting tumor cells growth. There is no question that the templates for most drugs are in the natural world. The question is how to discover using zoopharmacognosy by human diseased-animal models.

Biography

Wael Ebied has completed his BPharm from Tanta University and Postgraduate studies from Al-Azhar University, School of Pharmacy. He is a Professional QA and has published many papers in reputed journals and has been serving as an Editorial Board Member of repute. He has more than 20 year's experience in pharmaceutical industries, biotechnology, clinical trials, medical devices, APIs and herbal medicine. He is an accomplished technical presenter with numerous projects, scientific publications, participated in some patents and was awarded many premiums.

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