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Allah's Wondrous Creatures, the Holy Qur'an and Technological Inventions: Ultrasound Imaging

By: Sayed, IS (Sayed, Inayatullah Shah)^[1]

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Abstract

Allah (s.w.t) has created innumerable distinct creatures and mentioned to us about their special qualities through His revelation. The Qur'an is the ultimate source of guidance for its followers for all aspects of life including science. If one is to study nature scientifically there are countless observable facts that are parallel to the teachings of Islam. One of these facts is echolocation found in bats and dolphins. These animals generate ultrasonic signals and detect the echoes reflected back to them to map out their environment and catch prey. Modern health sciences have already adopted this phenomenon in the form of ultrasound imaging for diagnosis of certain diseases. However, there is room for improvement in the overall performance of this technique. This article highlights the technological developments directly inspired by nature i.e., crawfish/crayfish and relates echolocation characteristics of bats and dolphins with basic principles of ultrasound imaging. In-depth studies on the echolocation properties of these creatures can lead to further improvement in the current ultrasound imaging technique. Such as; the construction of a transducer which simultaneously generates multi-frequency ultrasound signals and development of new interpreting software. Moreover, reading verses of the Holy Qur'an heartily and enthusiastically will lead to the development of innovative ideas that can be translated into reality and applied for the betterment of humankind.

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Author Information

Reprint Address: Sayed, IS (reprint author)

+ Int Islamic Univ Malaysia, Dept Diagnost Imaging & Radiotherapy, Kulliyah Allied Hlth Sci, Kuantan Campus, Kuantan, Pahang, Malaysia.

Addresses:

+ [1] Int Islamic Univ Malaysia, Dept Diagnost Imaging & Radiotherapy, Kulliyah Allied Hlth Sci, Kuantan Campus, Kuantan, Pahang, Malaysia

E-mail Addresses: inayatullah@ium.edu.my

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