

Insights in Biology and Medicine

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Opinion

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[Medical bioethics vs. Medical ethics*](#)

The current situation of bioethics illustrates what has become known as “the anthropological halt”, described with great lucidity by C. S. Lewis in his book *The Abolition of Man* as the neglect of the “Tao”, a not very extensive body of basic axioms which enable the overall integrity of reason, both in theory and practice. One of these principles, visible to everyone and which provide the cornerstones of the Judeo-Christian tradition, is the sanctity of human life.

Research Article

Published Date:- 2018-06-19

[Similarity between Some Biological Systems, Organotropism and Metastatic Process: Active Role Played By Secondary Organ?](#)

According to literature, about 90% of death from cancer is related to metastasis. Metastatic process present many similarity to some other biological processes. Once we have examined some relevant biomedical literature, by understanding the real causes of metastasis, it would become much more possible to introduce new therapeutic strategies to delay or in some cases even to stop this kind of killer process. Breast cancer, as an example, produces metastasis to different organs, which seems to be related to the subtype. We believe that a deep understanding of the roles of breast cancer cells and their interactions with the liver microenvironment in early breast cancer metastasis could be a crucial factor for the design and development of effective BCLM breast cancer liver metastases therapeutic strategies and to better understand the general process. Let's suppose the secondary organ or organs can be considered as incubator/s for the primary metastatic cells. What kind of consequences we can have in therapy field if there is an active regulating role in determining the location of secondary cancers?

Let's observe the role played by liver, bone marrow, CNS central nervous system, lungs, lymphocytes and other secondary locations/organs a little bit closer or maybe from a different angle let's suppose we try to come up with just a hypothesis. Just let's take this as a possibility, and we take the thread to see where it takes us.

Research Article

Published Date:- 2018-01-16

[Growth Promoting Potential and Colonization Ability of Probiotics \(*Bacillus coagulans* and *Bacillus subtilis*\) on the Freshwater Prawn *Macrobrachium rosenbergii* Post-Larvae](#)

The probiotic effects of *Bacillus coagulans* and *Bacillus subtilis* were studied on survival, growth, concentrations of basic biochemical constituents, activities of digestive enzymes, and their colony establishments in the gut of *Macrobrachium rosenbergii* post-larvae (PL). Eleven groups of PL (2.03 ± 0.05 in length and 0.18 ± 0.01 g in weight), each consists of 35 individuals maintained in 25 L of ground water and fed ad libitum with five serially diluted concentrations, 10-1, 10-3, 10-5, 10-7 and 10-9 of *B. coagulans*, and *B. subtilis* incorporated diets containing 40% protein, for 45 days. Diet without incorporation of any of these probiotics was served as control. These probiotics were found to be alive in the respective feed even on day-15 after their formulations. Significant improvement in survival, nutritional indices (weight gain, specific growth rate, food conversion ratio and protein efficiency ratio), contents of basic biochemical constituents (total protein, amino acid, carbohydrate and lipid) and activities of digestive enzymes (protease, amylase and lipase) were observed ($P < 0.05$), particularly in 10-7 concentration of *B. coagulans*, and *B. subtilis* incorporated diets fed PL when compared with control. The biochemical confirmation tests revealed that presence of *Escherichia coli*, *Acetobacter* sp., *Salmonella* sp., and *Pseudomonas* sp., in the gut of control PL. In the gut of PL fed with *B. coagulans* incorporated diet, *Acetobacter* sp., *Salmonella* sp., and *Pseudomonas* sp., were found to be competitively excluded, whereas, in the gut of PL fed with *B. subtilis* incorporated diet, *Acetobacter* sp., and *Salmonella* sp., only were found to be excluded competitively. Actually, colonies of *Bacillus* sp., and *Lactobacillus* sp., were found to be establishment in the gut of PL fed with *B. coagulans*, and *B. subtilis* incorporated diets. Overall, these probiotics incorporated diets produced better growth and survival due to better FCR and activities of digestive enzymes, which in turn led to better nutritional profile. Therefore they are recommended as feed additives for sustainable culture of *M. rosenbergii*.

Short Communication

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[Erectile Dysfunction and Coronary Artery Disease: Two manifestations, one same underlying mechanism](#)

Erectile dysfunction (ED) is a common disorder whose prevalence increases with age. Over time a strong correlation between erectile dysfunction and cardiovascular disease has been established as the result of the same pathophysiological process: endothelial dysfunction and atherosclerosis. Because small vessels of the penis can be affected by atherosclerotic plaque earlier than coronary arteries, carotids or femoral arteries, men often have symptoms of ED long before the signs of cardiovascular disease appear. For this reason, ED can act as a marker of early atherosclerosis that predicts the onset of cardiovascular disease at a later time.

Opinion

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[What can Mathematics say about unsolved problems in Medicine?](#)

Nobody doubts that mathematics plays a crucial role in medical achievements. It is certain that is being mainly used in statistics and physics for biomedical problems [1]. For sure that we have already heard about how mathematics can improve the anticancer arsenal [2]. Quantitative genetics have triggered a giant potential in medical care [3,4]. And mathematical algorithms, provided by artificial intelligence, continuously boost new therapeutic paradigms [5,6]. Nonetheless, one cannot ignore the ability of mathematics for analyzing ideas.
