

講演会のご案内

演題： Dietary anti-oxidant cocktail supplementation against metabolic and functional alterations induced by physical inactivity in humans

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日時： 平成 28 年 11 月 11 日（金） 16:00～17:30

場所： 藤井節郎記念医科学センター 2階多目的室(3)

The actual human research program is the culmination of the 40-year space flight experience, including both short- and medium-term duration missions. The scientific results from these missions have demonstrated that spaceflights essentially induce muscle atrophy, bone demineralization, cardiovascular and metabolic dysfunctions, on which under-nutrition is superimposed. None of the numerous countermeasures tested so far were proven to be fully effective, but given the relative short duration of the missions, most astronauts returning to Earth did not encounter difficulties in recovering.

Nowadays, human spaceflight programs have entered the next phase of space exploration towards asteroids, Moon or Mars and there are clearly inherent new medical challenges with such a goal. We have indeed clearly much less information regarding the physiological changes associated with long-duration missions extending from 30 days to months in orbit. Therefore, the effects of long duration space flight on crew health and performance need to be explored to develop more effective and efficient countermeasures. Recent studies focused on nutrition in conjunction with exercise. Numerous studies showed several nutrients taken individually, i.e. resveratrol, quercetin, ω -3 fatty acids, vitamins and others, partially prevent metabolic and muscle alterations induced by physical inactivity and space flight. We will present data from a pilot study suggesting that additive effects are obtained when these nutrients are taken as a cocktail, hence offering a new strategy to test during bedrest.

多くの先生方、大学院生、学部学生、興味をお持ちのすべての方々のご来聴を歓迎致します。

※本講演は、蔵本キャンパスの大学院各教育部の大学院特別講義を兼ねています。

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