

20<sup>th</sup> International Conference and Exhibition on

# Pharmaceutics & Novel Drug Delivery Systems

March 18-20, 2019 | Edinburgh, Scotland

## Future approaches concerning vitamin B12 deficiency in elderly

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Vitamin B12 or cobalamin is essential for the major parts of the human body which are nerves, blood, and skeletal system. The major source of vitamin B12 is animal products. Vitamin B12 deficiency is common in vegan and vegetarians but the reports also become increased in elderly while human-life span keeps proliferating. There are more than 20 forms of vitamin B12 analogues but only two forms account as the natural active forms in the human body. Besides insufficient consumption of the vitamin B12, ingestion, transportation and the activity of the cobalamin in a body are also the causes of the deficiency. This presentation will give an overview concerning vitamin B12 and the known causes of its deficiency. However, the mechanism and homeostasis of vitamin B12 are truly complicated. Accordingly, the opinions for future approaches to study for developing the key information of the vitamin B12 for the general application in public health care will be proposed.

### Recent Publications:

1. Gruber K, Puffer B, Kräutler B (2011) Vitamin B12 derivatives-enzyme cofactors and ligands of proteins and nucleic acids. *Chemical Society Review* 40(8), 4346-63
2. Khodabandehloo N, Vakili M, Hashemian Z, Zare Zardini H (2015) Determining Functional Vitamin B12 Deficiency in the Elderly. *Iranian Red Crescent Medical Journal* 23, 17(8):e13138
3. Nielsen M J, Rasmussen M R., Andersen C B, Nexø E, Moestrup S K (2012) Vitamin B12 transport from food to the body's cells—A sophisticated, multistep pathway. *Nature Review. Gastroenterology & Hepatology*, 9:345–354.
4. Rietsema WJ (2014) Unexpected Recovery of Moderate Cognitive Impairment on Treatment with Oral Methylcobalamin. *Journal of the American Geriatrics Society*, 62(8), 1611-12.
5. Wang YH, Yan F, Zhang WB, Ye G, Zheng YY, Zhang XH, Shao FY (2009) An investigation of Vitamin B12 deficiency in elderly inpatients in neurology department. *Neuroscience Bulletin*, 25(4), 209-15.

### Biography

Tirasak Pasharawipas completed his PhD from Faculty of Microbiology, Mahidol University, Bangkok, Thailand. He has his Postdoctoral training at Neuro Virology and Cancer biology Center, Temple University, Philadelphia. At present, he is a Full Professor in Microbiology and Immunology, Graduate Program of Medical Technology, Rangsit University, Thailand. He is interested in various academic subjects of science and liberal arts in addition to music and sports. His scientific fields mainly focus in viral and cellular interaction, bacteriophage and viral diseases in invertebrate animals. However, his research interests expand to viral vaccines, autoimmune disease and cancer biology including the relationship of MHC molecules to some specific diseases and viral vaccines. He enjoys being a reviewer for several journals and an advisor to develop young medical scientists with the wish that they would co-operate and succeed to solve all the problematic diseases, now and then, in a proper way with genuine scientific thinking.

### Notes: