

Special Issue

Molecular Aspects of the Action of Vitamin K and its Related Compounds

Message from the Guest Editor

Vitamin K is an essential cofactor for post-translational modification in blood coagulation factors and bone proteins. Besides this well-known function, vitamin K plays important roles in cellular functions including differentiation, proliferation, apoptosis, and steroidogenesis, by modulating intracellular signalling. Menaquinone-4, that is one of vitamin K2 analogues, and endogenously synthesized from other types of vitamin K mediated by UBIAD1 prenyltransferase, acts as a ligand for nuclear receptor PXR (SXR) and can regulate mRNA expression of certain genes involved in drug metabolism and bone homeostasis. Natural isoprenoid geranylgeraniol, that is side chain moiety of menaquinone-4, shows functional aspects similar to menaquinone-4. In this Special Issue, we focus on the insights of vitamin K research regarding its properties in modulating intracellular signalling and gene expression that can contribute to health promotion and prevention of diseases.

Guest Editor

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