Special Issue

Gut Microbiota Dynamics and Uremic Toxins

Message from the Guest Editors

Recent evidence has highlighted the importance of gut microbiota in the pathophysiology of various diseases, including kidney diseases. The gut microbiota is involved in the production of many uremic toxins, such as indoxyl sulfate, p-cresyl sulfate, and trimethylamine N-oxide, which are retained in chronic kidney disease (CKD). Retention of these uremic solutes results in a variety of symptoms, such as cardiovascular dysfunction, pruritus, fatigue, renal anemia, mineral bone disorder, and neurological impairment, all of which appear in CKD patients. Alteration of gut microbiota composition affects the plasma levels of these uremic solutes in CKD. Microbiota also produces beneficial metabolites for the host, such as short-chain fatty acids. Thus, modulation of the intestinal microbiota by factors, such as by antibiotics, pre- and probiotics, nonlethal inhibition of microbial-specific enzymes, and pharmacological approaches targeting the intestine, could be an interesting approach to control uremic symptoms and the disease condition.

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Toxinology is an incredibly diverse area of study, ranging from field surveys of environmental toxins to the study of toxin action at the molecular level. The editorial board and staff of *Toxins* are dedicated to providing a timely, peer-reviewed outlet for exciting, innovative primary research articles and concise, informative reviews from investigators in the myriad of disciplines contributing to our knowledge on toxins. We are committed to meeting the needs of the toxin research community by offering useful and timely reviews of all manuscripts submitted. Please consider *Toxins* when submitting your work for publication.

Editor-in-Chief

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