

## Special Issue

# Fractalkine (CX3CL1) and Its Chemoattractant and Adhesion Molecule Properties in Health and Disease, 2nd Edition

Message from the Guest Editor

Fractalkine (FKN), also known as CX3CL1, is the only member of the chemokine family containing a three-amino-acid motif between the two cysteines (C-X-X-X-C) and a mucin-like domain. This chemokine is made up of 373 amino acids and is synthesized as a transmembrane molecule. Moreover, after cleavage by the TNF $\alpha$ -converting enzyme ADAM17, FKN can exist in a soluble form. These peculiar structural characteristics of fractalkine go hand-in-hand with its unique functional properties, as FKN combines the features of a chemoattractant and an adhesion molecule. Both of these functions require the presence of a specific and sole FKN receptor, CX3C motif chemokine receptor 1 (CX3CR1), also known as G-protein coupled receptor 13 (GPR13). Considering that CX3CR1 expression has been demonstrated on many different cells, FKN signaling may be crucial in health and disease.

This Special Issue is dedicated to all aspects of FKN signaling, including both physiological and pathologic conditions. It may be extremely interesting to present the reasons for recognizing the FKN-CX3CR1 signaling pathway as the main therapeutic target in a given disease.

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### Guest Editor

Prof. Dr. Dariusz Szukiewicz

Department of Biophysics, Physiology and Pathophysiology, Faculty of Health Sciences, Medical University of Warsaw, Chalubinskiego 5 (4th Floor), 02-004 Warsaw, Poland

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
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