

Special Issue on Carbohydrate Metabolism in Archaea

CALL FOR PAPERS

Archaea, the third domain of life on Earth, has received a great deal of attention since about 20 years ago due to its unique habit and character, metabolic apparatus, heredity, evolution, and environmental adaption. Previous studies have shown that Archaea harbor many unique metabolic pathways that differ from classical pathways from those in Bacteria and Eukarya. The glyconeogenesis/glycolysis plays vital roles in the carbohydrate and energy metabolism. Uncovering the glycometabolism pathways in Archaea and their regulation mechanism is essential for genetic engineering, metabolic control, and fermentation of Archaea. Furthermore, many catalytic enzymes with extreme properties identified in Archaea carbohydrates metabolism have significant applied potential and values in the field of biotechnology.

The development of genome, proteome, and metabolome leads to substantial advance of the glycobiology research in Archaea. In this special issue, we invite authors to contribute original research articles and review articles that address multifarious aspects of carbohydrates metabolism in Archaea as well as their regulatory mechanism.

Potential topics include but are not limited to the following:

- ▶ Metabolic pathway of saccharide in Archaea
- ▶ Regulatory mechanism of carbohydrates metabolism in Archaea
- ▶ Glycoprotein, glycolipid, and carbohydrate derivatives in Archaea
- ▶ Enzymes and their catalytic mechanism in Archaea carbohydrate metabolism
- ▶ Regulatory proteins, factors, or signal molecules (coenzyme, vitamin, ions, etc.) involved in Archaea carbohydrates metabolism
- ▶ Biotransformation and fermentation of carbohydrate in Archaea
- ▶ Biosynthesis and degradation of trehalose, chitin, cellulose, and so on in Archaea

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/archaea/cma/>.

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