



Archaea

Special Issue on

## Drug Delivery Systems and Medical Products Based on Natural and Semisynthetic Archaeal Components

# CALL FOR PAPERS

Due to constant demographic changes in the society, treatment of age-related serious and life-threatening diseases is becoming increasingly relevant. In order to reduce drug related side effects and increase the delivery efficiency (e.g., extended circulation time), an appropriate drug delivery vehicle must be chosen. Liposomes have been proven to be efficient delivery vehicles for a large range of drugs used in therapeutics. However, liposomes still suffer from poor stability in serum, gastric fluids, and acidic pH. To overcome these issues, a new class of tetraether lipids from Archaea can be used as helper lipids in liposomal formulation, especially for delivery of sensitive material like peptides or genetic material where overall stability must be guaranteed. Additionally, archaeal components may be used for surface modifications of medical implants to render them biocompatible and to improve their stability under physiological conditions.

Research groups that are involved in the fields of drug delivery, analytics, synthesis, and microbiology are expected to participate in this special issue. We invite investigators to submit original research articles and reviews.

Potential topics include, but are not limited to:

- ▶ Archaeal lipid based delivery systems for drugs, peptides, and genetic material
- ▶ Diagnostic systems based on archaeal lipids
- ▶ Physicochemical, structural, and morphological investigation of the archaeal based delivery systems
- ▶ Chemical modifications of archaeal lipids for pharmaceutical formulations
- ▶ Studies relating to drug metabolism, uptake, and toxicity
- ▶ Surface modifications of implant materials and their characterisation
- ▶ Controlled release systems based on archaeal lipids

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

### Lead Guest Editor

Udo Bakowsky, University of Marburg,  
Marburg, Germany  
[ubakowsky@aol.com](mailto:ubakowsky@aol.com)

### Guest Editors

Marc Schneider, Saarland University,  
Saarbrücken, Germany  
[marc.schneider@mx.uni-saarland.de](mailto:marc.schneider@mx.uni-saarland.de)

Jens Schäfer, University of Marburg,  
Marburg, Germany  
[j.schaefer@staff.uni-marburg.de](mailto:j.schaefer@staff.uni-marburg.de)

Carsten Ehrhardt, Trinity College  
Dublin, Dublin, Ireland  
[ehrharc@tcd.ie](mailto:ehrharc@tcd.ie)

### Manuscript Due

Friday, 2 September 2016

### First Round of Reviews

Friday, 25 November 2016

### Publication Date

Friday, 20 January 2017