

Special Issue

Positively Charged Antimicrobial Dendrimers

Message from the Guest Editors

The rapid increase of antimicrobial resistance urgently requires new curative options. Inspired by natural cationic antimicrobial peptides, cationic molecules able to inhibit or kill bacteria, acting principally as external membrane disruptors, were synthesized. Cationic antimicrobial dendrimers, compared to small drug molecules or traditional polymers, own improved long-term activity, selectivity, stability, and better capability to load traditional antibiotics, working in synergy and allowing reduced dosage. In this contest, differently structured cationic dendrimers were industrialized, but the developing of polyester-based ones, in our opinion very attractive, because highly biodegradable, is still in its infancy. Additionally, their mechanism of action at molecular level, as well as the relationships structure/activity need more investigations. This Special Issue wants to present the latest solutions in the field of antimicrobial cationic dendrimers, the structural strategies to improve their activity, selectivity and drug loading capacity and aim at providing information concerning their mechanisms of action.

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Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.9.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker

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