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DNA Nanotechnology for Biomedical Applications

Guest Editor:

Dr. Yupeng Chen

Department of Biomedical Engineering, University of Connecticut, Storrs, CT 06269, USA

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closed (30 September 2024)

Message from the Guest Editor

DNA nanotechnology is a cutting-edge field that harnesses the unique properties of DNA or DNA-inspired molecules to create nanoscale structures and devices with a wide range of biomedical applications. Researchers manipulate these molecules to design and assemble intricate nanostructures, such as nanorobots, drug delivery systems, biochemical sensors and tissue regeneration scaffolds. These DNA-based nanodevices can target specific cells or molecules, delivering drugs and therapeutic RNAs with precision, detecting biomarkers for diseases and even performing tasks like repairing damaged tissues. DNA nanotechnology holds great promise in revolutionizing diagnostics, drug delivery, biotherapeutics and regenerative medicine, offering highly customizable and biocompatible solutions to address various biomedical challenges.

We invite researchers to submit original research articles, communications and review articles covering recent advances in DNA nanotechnology and their biomedical applications. Topics of interest for this Special Issue include but are not limited to DNA nanotechnology for drug delivery, imaging probes for diagnostics, platforms for tissue engineering, etc.



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Special Issue



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Prof. Dr. Anthony Guiseppi-Elie

Department of Biomedical
Engineering, Texas A&M
University, College Station, TX
77843, USA

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Bioengineering Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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