SOLID-PHASE PURIFICATION OF SYNTHETIC DNA SEQUENCES

Technology Summary

FDA researchers have developed a novel high-throughput method for purifying full-length phosphorothioate and native DNA sequences. This method comprises a modified silica gel that enables capture of DNA sequences functionalized with a novel linker specifically designed for exclusive capture of full-length sequences. This technology can generate DNA sequences of high purity without the need of expensive equipment and associated accessories. This discovery may improve the availability of pure DNA sequences for clinical and/or synthetic biology applications.

Potential Commercial Applications

- A high-throughput purification technique for producing small and large quantities of highly pure DNA sequences.

Competitive Advantages

- Cost effective
- High-throughput capabilities
- Time-saving
- High purity

Development Stage: *in vitro* data

Inventors:

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Publications:

"Solid-Phase Purification of Synthetic DNA Sequences." *J. Org. Chem.* 2016 Aug 5;81(15):6165-75
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Intellectual Property:

United States patent application: 16/312,445, filed 12.21.2018

Product Area: Drugs

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