Intellectual Property (Non-confidential)



# Reducing Solexa's bias in profiling small RNAs



# DESCRIPTION

The discovery of small RNAs (miRNAs, siRNAs, etc.) established a brand new research field. This new flourishing field has given research tool providers a multi-billion dollar market that didn't exist a decade ago. The sequencing and identification of small RNAs is a crucial aspect of the research, therefore speedy and accurate identification tools are essential.

As a leading provider of next generation high-throughput sequencing systems that have revolutionized the biology world, Illumina's Solexa systems are heavily depended upon by researchers to accurately provide data.

Recently, City of Hope's researchers identified and characterized an inherent bias in the Solexa sequencing system for small RNAs. They proceeded to develop new strategies and 5' adaptors that have been shown experimentally to reduce this bias and increase the coverage of miRNAs identified by 100% when compared to the current default 5' adaptors and strategies. The research results and strategy for reducing the bias has been recently

published in the well-respected journal in the field, RNA, and they have also been filed in a US Patent Application.

### KEY ASPECTS

- Significant reduction of inherent bias in the Solexa sequence system
- Increase the sensitivity of the Solexa sequencing system for small RNAs

### PUBLISHED DATA

• Sun G. et al, A bias-reducing strategy in profiling small RNAs using Solexa. RNA 2011 Oct 21. PMID: 22016383

### INTELLECTUAL PROPERTY

Title	US Patent Application Number
METHODS FOR SMALL RNA SEQUENCING	61/519,023

# CONTACT

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