

# Resource Summary Report

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## Comparative Sequencing of Plant Small RNAs

RRID:SCR\_007003

Type: Tool

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### Proper Citation

Comparative Sequencing of Plant Small RNAs (RRID:SCR\_007003)

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### Resource Information

**URL:** <http://smallrna.udel.edu/index.php>

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**Description:** This project has developed a sequence dataset of plant small RNAs based on the hypothesis that most if not all plants utilize important small RNA signaling networks. Different plant families are likely to have both common and lineage-specific miRNAs or other small RNAs with important biological roles. Comparative genomics approaches can be applied to distinguish potential miRNAs from siRNAs and to match the miRNAs to the target sequences. This project develops an unparalleled resource of millions of plant small RNAs for comparative analyses. The project includes sequencing of small RNAs from a diverse and agronomically-relevant set of plant species, focused analyses of important members of the Solanaceae and Poaceae, and development of a small RNA database and web interface for public access and analysis of data. These data will allow the experimental characterization of the majority of biologically important small RNAs for a range of plant species, and will be tremendously useful to a broad set of plant biologists interested in development, stress responses, epigenetics, evolution, RNA biology and other traits impacted by small RNAs. We offer a variety of tools to query the small RNA data set, with options to identify sequences based on homology, expression levels, conservation, or potential function: 1. Small RNA mapping tool: searches for small RNAs perfectly matching a genomic sequence provided by the user. 2. Small RNA mismatch tool: searches the database for small RNAs or other short sequences provided by the user, allowing mismatches. 3. Library-comparison tool to identify conserved small RNAs. 4. Library-comparison tool to identify differentially regulated small RNAs. 5. Reverse Target Prediction.

**Resource Type:** production service resource, data analysis service, service resource, analysis service resource, data or information resource, data set

**Funding:** NSF 0638525

**Resource Name:** Comparative Sequencing of Plant Small RNAs

**Resource ID:** SCR\_007003

**Alternate IDs:** nlx\_37749

**Record Creation Time:** 20220129T080239+0000

**Record Last Update:** 20260804T043319+0000

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## Ratings and Alerts

No rating or validation information has been found for Comparative Sequencing of Plant Small RNAs.

No alerts have been found for Comparative Sequencing of Plant Small RNAs.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 1 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [ASWG](#) .

Bliss BJ, et al. (2013) Characterization of the basal angiosperm *Aristolochia fimbriata*: a potential experimental system for genetic studies. *BMC plant biology*, 13, 13.