

## **Addgene Helps Distribute Cellecta's DECIPHER shRNA Libraries to the Academic Community**

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*Addgene connects with the DECIPHER Project to help distribute shRNA Libraries to the scientific community*

In association with the DECIPHER Project, the non-profit plasmid repository Addgene is now distributing a set of short hairpin RNA (shRNA) pooled libraries to the academic community. Altogether, the libraries cover over 15,000 human genes and nearly 10,000 mouse genes (<http://www.addgene.org/decipher>). shRNAs represent a form of RNAi that can be used to silence genes in a variety of cell types. The DECIPHER lentiviral shRNA libraries are robust tools that researchers can use for functional gene studies and drug discovery initiatives.

The DECIPHER Project was initiated to help standardize the process of RNAi-based screens. Established by Cellecta Inc. with grant funding from the NIH National Center for Research Resources (NCR) and the National Human Genome Institute (NHGI), the DECIPHER Project represents a new era in collaborative studies. The goal of the project is to provide a practical set of tools to both academia and industry that can be used to produce reliable data and generate valuable findings. In addition to the libraries, extensive protocols and valuable data analysis tools are also available on the DECIPHER Project website. In return for access to this resource, researchers agree to share data obtained from the libraries after publication.

The libraries now available at Addgene are broken down into modules: three modules for human, and two modules for mice. Each module targets roughly 5,000 genes--variously associated with diseases, known drug targets, or signaling pathways--and represents over 25,000 unique shRNAs. This modular format was designed to help eliminate experimental concerns associated with large-scale screens and provides a more comprehensive approach to screening in general. In addition, the libraries use optimized 18-nt bar-codes that facilitate the identification of functional shRNAs and high-throughput sequencing data analysis using the Illumina platform.

The two principal investigators associated with the creation of the project, Alex Chenchik of Cellecta Inc. and Gus Frangou of the Fred Hutchinson Cancer Research Center, have provided Addgene with these libraries in order to facilitate access specifically to academic scientists.

"We would like to make the DECIPHER libraries widely available, and since Addgene has become the leading source for plasmid-based tools for the academic community, this is a wonderful opportunity to work together," explains Alex Chenchik.

This type of high throughput DNA-based reagent is rarely available to the academic world, especially for such a low cost. Addgene and Cellecta's goal for this collaboration is to make a highly advanced technology more accessible to the average researcher.

"We are excited to be hosting these reagents and believe that the DECIPHER project is providing a great benefit to the research community," says Melina Fan, Executive Director at Addgene.

Details and manuals pertaining to the DECIPHER shRNA libraries can be found on Addgene's website (<http://www.addgene.org/decipher>) and on the DECIPHER Project's website (<http://www.decipherproject.net>). The DECIPHER project hopes to release additional modules in the coming year.

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Addgene is a non-profit organization dedicated to making it easier for scientists to share plasmids.

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