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### Media Contacts:

Karl von Gunten (919) 931-1434  
[karlvongunten@tranadiscovery.com](mailto:karlvongunten@tranadiscovery.com)

Rhonda Jung (205) 581-2317  
[jung@southernresearch.org](mailto:jung@southernresearch.org)

### **Trana Discovery and Southern Research Institute Announce the First RNA-RNA High Throughput Drug Screening Assay Platform for HIV Antivirals**

*Collaboration validates unique HIV assay system that identifies potential tRNA inhibitors*

**CARY, NC and BIRMINGHAM, Ala. (Sept. 17, 2007)** – Trana Discovery, a drug discovery company, today announced the development of a high throughput screening (HTS) assay for the identification of new compounds for the treatment of HIV. The HTS assay was developed in collaboration with Southern Research Institute, a research organization that conducts basic and applied preclinical drug research. This new assay gives pharmaceutical companies the ability to rapidly and efficiently screen vast libraries of compounds in order to identify those that interrupt the lifecycle of HIV through a novel mechanism of action—the inhibition of transfer RNA (tRNA). This technology has the potential to discover new classes of medicines for the treatment of HIV that may overcome resistance mechanisms associated with current therapies.

To date in the U.S., about 30 drugs—as single agents or as combination products—for the treatment of HIV infections have been introduced by more than ten different companies. But collectively, these agents represent only five different classes working at just four different sites of action in the HIV replicative cycle. And despite the enhanced potency of the more recently introduced products, resistance continues to be a major challenge for managing patients with HIV.

There remains an unexploited target for antiretroviral drugs—the disruption of human transfer RNA (tRNA) use by the virus during HIV replication. But until recently, several barriers, including the stability of the RNA-RNA binding during experimentation, had prevented exploration of tRNA as a drug target. Working in collaboration with Southern Research, Trana Discovery refined their technology to overcome those barriers in a HTS format, thus opening the way to discovery and development of HIV drugs that work by means of this novel mechanism of action.

At the state-of-the-art High Throughput Screening Center at Southern Research, the Trana Discovery RNA assay was adapted to the robotics platform. By using precision robotics, highly accurate low volume liquid handling devices, sensitive detectors and powerful data processing software, the HTS assay that was developed will allow researchers to quickly conduct millions of tests that identify active compounds. The data generated from a large screen like this provides the starting point for drug design and development. Using this newly validated assay, the HTS Center at Southern Research can screen 50,000 compounds per day.

**MORE**

"We consider the HIV HTS assay as a major breakthrough in the development of new techniques in the early-stage drug discovery and development process," said David Harris, director of Drug Discovery Business Development at Southern Research. "The addition of the tRNA assay platform adds to our service offerings that lead to the improvement of people's lives around the world."

Trana Discovery and Southern Research are currently developing other HTS assays to identify compounds that interrupt the lifecycle of bacteria, such as *E.coli* and Methicillin-resistant *Staphylococcus aureus* (MRSA).

"The development of the HTS assay validates that our technology can be adapted to the automated platforms used for high throughput screening, and signals a major step forward in its advancement," said Steve Peterson, CEO of Trana Discovery. The patented technology has been under extensive development at North Carolina State University. "We are now ready for the commercialization and licensing of this technology to discover new classes of compounds that will inhibit HIV via a unique mechanism of action," said Peterson.

Trana Discovery is seeking diverse collections of compounds or compounds with known bioactivity against HIV but unknown mechanism of action to identify candidates for drug development. Organizations interested in licensing the HIV HTS assay should contact Trana at [info@tranadiscovery.com](mailto:info@tranadiscovery.com) or by calling 866-390-3452 (toll free) or +1-919-342-6192. Parties also interested in outsourcing screening using this assay may contact David Harris at Southern Research at [d.harris@southernresearch.org](mailto:d.harris@southernresearch.org) or call 1-800-967-6774.

#### **About Southern Research Institute**

Southern Research Institute is a not-for-profit organization that conducts basic and applied research in the areas of preclinical drug discovery and drug development, advanced engineering, environmental and energy production. To date, Southern Research has discovered six FDA-approved cancer drugs and discovered four additional drugs that are currently in clinical trials. No other company or institution has brought six of its own cancer drug discoveries to market. Further, Southern Research has evaluated almost 70 percent of all other FDA-approved cancer drugs on the market. Seventy-five percent of all FDA approved HIV drugs have also been evaluated at Southern Research during development. For more information, please visit [www.southernresearch.org](http://www.southernresearch.org).

#### **About Trana Discovery, Inc.**

Trana Discovery is a drug discovery company whose technology identifies compounds that interrupt the lifecycle of pathogens through a novel mechanism of action - the inhibition of transfer RNA (tRNA). The company enables exclusive rights to new classes of drugs used to treat serious bacterial, fungal and viral infectious diseases. The use of Trana Discovery technology can unlock the value – human and financial – hidden in drug compound libraries and can shorten the time between drug discovery and availability. Trana Discovery is commercializing technology that has been under development for nearly 20 years at North Carolina State University. The company is located in Cary, North Carolina. For more information, please visit [www.tranadiscovery.com](http://www.tranadiscovery.com).