ENSEMBLE THERAPEUTICS RECEIVES TWO NOTICES OF ALLOWANCE FOR FUNDAMENTAL PATENTS TO DNA-PROGRAMMED CHEMISTRY PROCESS FOR NOVEL MACROCYCLE THERAPEUTICS

Patent Claims Affirm Ensemble’s Unique Methods for Building Diverse Molecular Libraries to Create Drug Molecules with New Chemical Structures

Ensemble’s Macrocycle Drug Discovery Platform Reaches New Level of Productivity: On track to Produce 4.2 Million Macrocycles by early Third Quarter

CAMBRIDGE, MA – July 6, 2011 – Ensemble Therapeutics, a biotechnology company developing Ensemblins™, a novel class of small molecule therapeutics with the power of biologics, today announced that the US Patent and Trademark Office (USPTO) has issued two Notices of Allowance relating to patents licensed exclusively by Harvard University to Ensemble. These newly allowed claims encompass broad and fundamental aspects of DNA-Programmed Chemistry (DPC) molecular library construction, affirming Ensemble’s novel and proprietary approach to building diverse libraries of molecules for drug discovery.

The allowance of these two US patents brings the total of issued or allowed patents in Ensemble’s portfolio, including those licensed from Harvard and those owned outright by Ensemble, to 52 worldwide. The allowed patents today are US Patent Application #11/141,164 entitled “Evolving New Molecular Function” and #11/336,405 entitled “Free Reactant Use in Nucleic Acid-Templated Synthesis”, both co-invented by Harvard professor and Ensemble scientific founder David Liu.

“Our DNA-programmed Chemistry platform is a powerful tool for creating large diverse collections of macrocycles for drug discovery.” said Ensemble President & CEO Michael D. Taylor, Ph.D. “Our approach has opened the door to a new chemical space of synthetic drug-like molecules that can address some of the toughest drug targets, including protein-to-protein interactions. These patents reinforce our novel approach and unique capabilities in this space.”

The claims in the allowed patents cover methods of constructing complex molecules as driven by DNA hybridization, and also the subsequent addition of independent reagents to further build and add structural complexity to such molecules in the course of assembling large and diverse libraries of Ensemble’s macrocycles.

Ensemble Therapeutics also announced that it has continued to increase the productivity of its library synthesis campaign nearly tripling the total number of Ensemblins from late in 2010 to a projected total of 4.2 million by the end of July 2011. This increased productivity enables Ensemble to screen a drug target against 4 million macrocycles, identify hits and elaborate comprehensive structure-activity relationships (SAR) in a matter of weeks.

“With DNA-Programmed Chemistry as pioneered by Ensemble Therapeutics and now protected by these allowed patents, we have dramatically increased the productivity of our platform and have an expanding track record of drug discovery against challenging protein targets,” said Nick Terrett, Ph.D.
Chief Scientific Officer. “Using our highly-efficient affinity selection screening capability, Ensemble is able to rapidly screen a drug target and identify and evaluate hits, often against targets without small molecule ligands or known SAR, and efficiently produce low nanomolar potent compounds for multiple drug discovery programs.”

About Ensemblins

Ensemblins™ are a new class of synthetic macrocycles developed by Ensemble using its proprietary chemistry platforms, including DNA-Programmed Chemistry™. Macroyclic rings are found in many natural product-based drugs and bestow favorable pharmaceutical properties and powerful protein surface binding properties upon such drugs. Thus, macrocycles are uniquely suited to address many protein targets that cannot be modulated effectively by traditional small molecule pharmaceutical compounds. Macrocycles have been challenging to synthesize in large numbers and this has constrained their wider use in the industry. Ensemble has produced larger collections of macrocyclic drug candidates than any previously synthesized in the pharmaceutical industry.

About Ensemble Therapeutics

Based in Cambridge, MA, Ensemble Therapeutics is deploying its proprietary chemistry platforms to develop a novel class of therapeutics known as “Ensemblins”. Ensemble is the exclusive worldwide licensee from Harvard University of its patents covering DNA-Programmed Chemistry.

Ensemble is pursuing a proprietary drug pipeline and also collaborations with pharmaceutical partners. Ensemble has two drug discovery alliances with Bristol-Myers Squibb (April 2009) and Pfizer (January 2010). Ensemble’s lead proprietary programs are in the inflammatory disease field, and the company also has an emerging portfolio of proprietary programs in oncology and hematology. For more information, visit: www.ensembletx.com.

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