

## A Revolution in Drug Discovery

Focus on the toughest drug discovery targets: *Protein-Protein Interactions*. Create a new class of compounds ideally suited to address those targets: *Ensemblins™ (synthetic macrocycles)*. Engineer those molecules in diverse collections totaling more than 4 million macrocycles using a revolutionary chemistry platform: *DNA-Programmed Chemistry*. Combine the chemistry with a powerful, extremely efficient screening platform. Assemble a world-class medicinal chemistry capability that can rapidly synthesize and optimize macrocycles to nanomolar potency. Execute productive partnerships with major Pharma Companies. Build a track record of success in delivering successful programs for our partners and our own proprietary portfolio. *That is the story of Ensemble Therapeutics.*

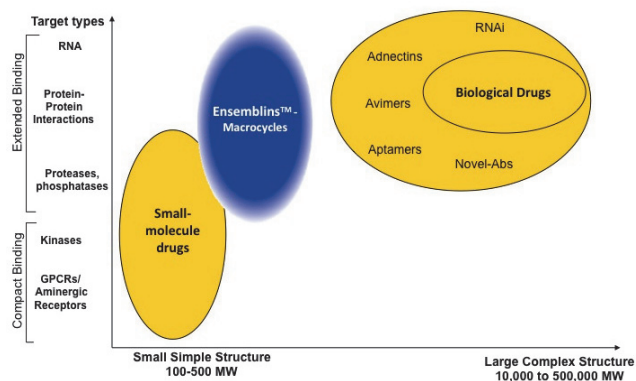
## Ensemblins™: Small Molecules with the Power of Biologics™

Ensemblins are a new class of drugs in an emerging therapeutic space between small molecules and biologics capable of addressing historically challenging disease targets. With their distinctive macrocyclic ring structure, Ensemblins have unique chemical and biological properties designed to achieve uncommonly high levels of affinity and specificity. Ensemblins go beyond the limits of traditional small molecules through their potential to bind to targets (e.g., PPIs) that are only addressable today with biologics, yet retain small molecule drug qualities such as oral bioavailability and intracellular permeability.

## Benefits of Ensemblin Macrocyces

- **Distinct Pharmaceutical Properties:** provides oral administration, cell penetration, metabolic stability and readily scalable synthesis.
- **Target affinity and selectivity:** inhibits protein targets not addressed by small molecules (PPIs, proteases, etc.)
- **Versatility:** inhibits targets across diverse disease areas (inflammation, immune disorders, cancer, etc.)

Ensemblins: Small Molecules with the Power of Biologics™



## Ensemble Pipeline

Ensemble is focusing its proprietary discovery and development efforts in the key therapeutic areas of oncology and immuno-inflammatory diseases. In addition to its own programs, Ensemble has made substantial and rapid progress together with its collaboration partners against a number of high-value drug targets in multiple therapeutic areas.

### Small molecule antagonists of Interleukin-17

Ensemble has identified a series of first-in-class small molecule antagonists of Interleukin-17, an important, clinically validated Protein-Protein Interaction target that has proven impervious to traditional small molecule pharmaceutical approaches and has only been addressed to date with protein therapeutics. A small orally-active inhibitor of IL-17 would have significant delivery and therapeutic advantages over current clinical stage anti-IL-17 antibody products. IL-17 is a pro-inflammatory cytokine implicated in multiple inflammatory and autoimmune diseases. This rapidly advancing program is expected to produce an orally active development candidate by the end of 2012.

## Delivering Successful Programs for Partners Against Intractable Protein Targets

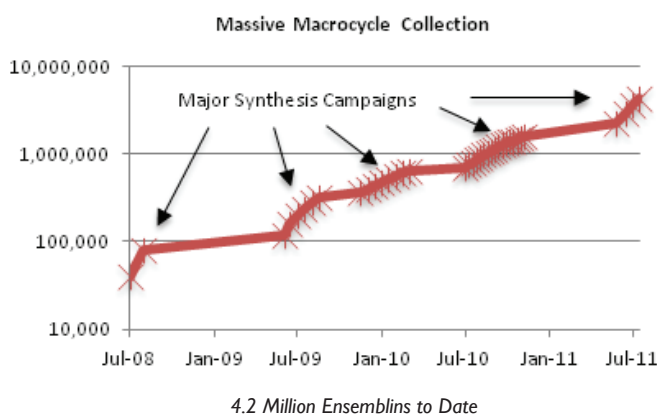


Bristol-Myers Squibb and Pfizer established drug discovery alliances with Ensemble to develop Ensemblins against certain exclusive high-value Protein-Protein Interaction targets. Ensemble has discovered validated leads for many of the PPI targets screened to date for our partners, as well as confirmed cellular activity of Ensemblins for several key targets. In April 2011, Ensemble successfully delivered a completed program directed at an intracellular PPI target to BMS for further development for which Ensemble received a milestone payment.

For these alliances, Ensemble receives license fees and research funding, plus future preclinical and clinical milestones and royalties on sales of products successfully advanced and commercialized by our collaborators.

### Ensemblin Product Platform: DNA-Programmed Chemistry (DPC™)

Ensemble's proprietary platform extends the limits of traditional small molecule drug discovery through its DNA-Programmed Chemistry™ (DPC) platform. DPC gives the company unmatched capabilities to successfully and reliably generate millions of synthetic macrocyclic Ensemblins™ as drug candidates. Ensemble screens its macrocyclic compounds for biological activity against many high-value targets through a rapid, highly sensitive and efficient affinity selection process to successfully generate leads. Ensemble has built a library of over 4.2 million macrocyclic Ensemblins, the largest such set of compounds ever assembled in the pharmaceutical industry.



### Unparalleled Productivity for Discovery

#### Speed: 3-month cycle

- Millions of compounds screened — hits and SAR revealed.
- Off DNA™ hits synthesized for validation.
- Iterative focused libraries built to explore SAR.

#### Efficiency

- Economical screening process; industry-standard DNA sequencing; low FTEs.

#### Parallel Screening and Medicinal Chemistry

- Multiple targets screened in parallel.
- Medicinal chemistry produces hundreds of macrocycles to optimize potency, selectivity and pharmacokinetics.

### Company Background

Ensemble has assembled an experienced management team and a strong set of investors, including Flagship Ventures, ARCH Venture Partners, CMEA, Harris & Harris, Kisco Ltd. and Boston University. Ensemble has raised \$38.5 million of equity financing to date.

Ensemble's extensive patent estate includes an exclusive, worldwide license from Harvard University to Prof. David Liu's powerful DNA-Programmed Chemistry platform.

### Management Team

#### Michael Taylor, Ph.D.

CEO, formerly Pfizer R&D, Warner-Lambert

#### Nicholas Terrett, Ph.D.

CSO, formerly Pfizer R&D

#### David Livingston, Ph.D.

SVP Biology, formerly Vertex, Praelux, Genzyme

#### Ted Hibben, MBA

SVP Corporate Development, formerly Cequent, Coley

#### Stephen Hale, Ph.D.

VP Biochemistry & Screening, formerly Praecis

#### Andrea Szekely-Hill, CPA

Director of Finance and Administration, formerly Deloitte

### Board of Directors

#### Noubar Afeyan (Chairman)

Managing Partner, Flagship Ventures

#### Douglas Cole

General Partner, Flagship Ventures

#### Robert Nelsen

Managing Director, ARCH Venture Partners

#### Anna Protopapas

SVP, Millennium Pharmaceuticals, Inc.

#### Michael Taylor

CEO, Ensemble Therapeutics

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