IMMUNE RESPONSES, ON CUE™

Cue Biopharma, a clinical-stage biopharmaceutical company, is engineering a novel class of injectable biologics to selectively engage and modulate targeted T cells within the body to transform the treatment of cancer and autoimmune diseases. Our proprietary Immuno-STAT™ (*Selective Targeting and Alteration of T cells*) platform is designed to harness the body's intrinsic immune system without the need for ex vivo manipulation.

Our lead program, CUE-101, for the treatment of HPV16-driven recurrent or metastatic head and neck squamous cell carcinoma (HNSCC), is currently being tested in a Phase 1 clinical trial.

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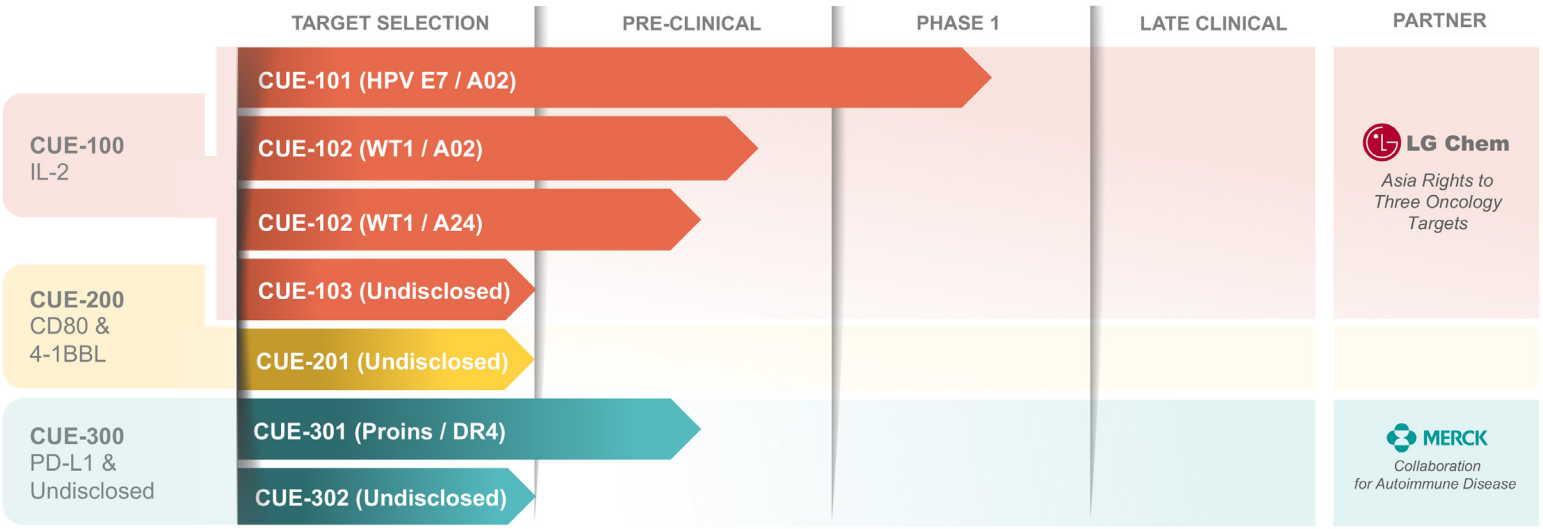
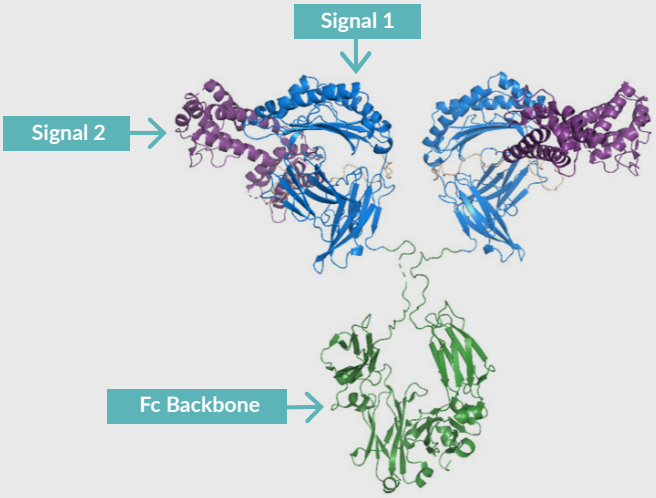
Cue Biopharma's Immunotherapy Pipeline



The Immuno-STAT: A Selective Immune Response, Induced on Cue

Cue Biopharma is engineering a novel class of injectable biologics to selectively engage and modulate targeted T cells within the body. Our biologics are engineered to direct T cell activity via two distinct signals presented naturally by the body when mounting an immune response:



Core Components

Signal 1: A stabilized peptide-MHC complex (pMHC) to engage disease relevant T cells.

Signal 2: A co-stimulatory or inhibitory signal to control the activity of target T cells.

Fc Backbone: A well-characterized construct that provides stability and ease of manufacture.

IMMUNO-ONCOLOGY:

CUE-100 Framework

Drug candidates developed within our CUE-100 framework selectively stimulate the interleukin 2 (IL-2) receptor, a potent activator of the pathway critical to the growth, expansion and survival of T cells. We have engineered the framework to activate specific T cell populations through peptide-MHC complex (pMHC) targeting of T cell receptors (TCRs) and selective deployment of the IL-2 signal. The IL-2 has been attenuated to enable our Immuno-STATs to preferentially activate tumor specific T-cells without systemically activating other T cell populations, thereby potentially mitigating the dose-limiting toxicities associated with current IL-2-based therapies.

CUE-101

Our lead drug from the CUE-100 framework, CUE-101, contains IL-2 and a pMHC composed of HLA-A*02:01 complexed with a dominant peptide derived from the human papilloma virus E7 protein (HPV-E7). It is a fusion protein biologic designed to target and activate antigen-specific T cells to fight HPV-driven cancers.

In preclinical studies, CUE-101 has demonstrated selective binding and preferential activation and expansion of antigen-specific T cells, dose-dependent effector cytokine production and inhibition of tumor growth both as a monotherapy and in combination with a PD-1 inhibitor. These findings were previously presented at the Society for Immunotherapy of Cancer's (SITC) 33rd Annual Meeting. CUE-101 is currently in the clinic and we expect initial clinical data to be available in 2020.

CUE-102

CUE-102 leverages the CUE-100 framework and a pMHC derived from the Wilms' Tumor protein (WT1), a non-viral antigen known to be over-expressed in a number of cancers, including solid tumors and hematologic malignancies. We initiated pre-clinical studies in collaboration with our partner LG Chem Life Sciences in 2019.

CHRONIC INFECTIOUS DISEASE:

CUE-200 Framework

The CUE-200 framework utilizes co-stimulatory cell surface receptors, including CD80 and/or 4-1BBL to reactivate exhausted T cells and are designed to promote enhanced antigen-specific T cell activation and function for the treatment of chronic infectious diseases.

AUTOIMMUNE DISEASE:

CUE-300 Framework

The CUE-300 framework has the potential to target a broad range of addressable autoimmune diseases by selectively modulating disease-associated T cells so that healthy cells are protected from immune attack, without compromising the immune system. Immuno-STATs inhibit autoimmune disease-associated T cells via two general strategies:

- Inhibition of autoreactive T cells by selectively delivering inhibitory signals; or
- Selective expansion of regulatory T cells (Tregs) to control aberrant activation of autoreactive T cells.