

## COMPANY FACT SHEET

CellMosaic®, Inc. is an innovator and leader in bioconjugation and crosslinking technologies. The company provides bioconjugation based products and services for the pharmaceutical industry, diagnostic companies, and academic researchers.

**Advanced Conjugation Processes:** Since 2008, CellMosaic® has spent a lot of research effort on developing advanced conjugation processes that involve controlled, site-specific, or single labeling methods. Based on these processes, CellMosaic® has built a successful custom conjugation service business and delivered >500 projects and >300 unique conjugates (as of March 2023) covering a variety compounds.

**PerKit™ and ADC Kit Development:** Since late 2015, CellMosaic® began to commercialize personalized™ conjugation kits (PerKit™) based on our advanced conjugation processes. Customers can use these kits in-house to prepare high quality bioconjugates. In Dec. 2017, CellMosaic® expanded PerKits™ to ADC kits help our customers quickly evaluate their biologics of interest with direct conjugation of a range of key payloads.

**AqT® Technology Development:** In early 2011, CellMosaic® began to develop a new type of crosslinkers to overcome the difficulties of labeling and conjugating hydrophobic compounds. CellMosaic® pioneered the concept of utilizing sugar alcohol (SA) monomers to chemically assemble AqueaTether® (AqT®) for conjugation and drug delivery. SA is structurally analogous to PEG but has many advantages over PEG in terms of hydrophilicity, loading, versatility, and easy customization. CellMosaic® is currently offering next generation bioconjugation kits and products based on AqT® linkers. The AqT® platform also offers a simple solution to complicated bioavailability, stability, and/or toxicity issues faced by many small-molecule hydrophobic drugs, as well as with large-molecule biologics.

**Other Crosslinking Technology Development:** Several other key technologies have also been developed at CellMosaic®, including oxLink™ and sxLink™ technologies for studying protein–protein interactions, and Nelon™ technologies for detecting and quantitating trace amounts of analytes of interest by mass spectrometry. Currently, we are developing products using these technologies for R&D usage.

**Business strategy:** Develop products internally or collaboratively with other companies.

CellMosaic's business is organized into 4 units:

1. Bioconjugation Reagents/Kits;
2. Custom Bioconjugation Services & Routine Synthesis.
3. Contract Dev. & Mfg. of Bioconjugate Drug (e.g. ADC) and Diagnostic Bioconjugates.
4. Novel AqT® ADC Dev. & Mfg.

## Products & Services

### ADC and Other Drug Conjugate (ODC) Solutions

- ADC and Protein Drug Conjugate (PDC) kits
- Analysis and Assay Services
- Standards and Controls
- **Routine Synthesis** with Set Price
- Specialized ADC Dev. & Mfg.
- AqT™ ADC Dev. & Mfg.

### AqT™ Reagents and Kits

- Biotin, Digoxigenin, Fluorescence Dye, Assay plates, Immobilization
- OxLink™ and sxLink™ Protein Crosslinkers

### Services

- Custom bioconjugation & Routine Bioconjugation
- Bioconjugate Drug Dev. & Mfg.
- Diagnostic Conjugates Dev. & Mfg.
- Bioconjugate Analysis & purification, Bioassay

### Reagents and PerKit™

- Standards and Controls
- Biotin and Streptavidin/Avidin
- Antibody, Enzyme, Protein, Peptide, Nucleic Acid and Oligo, Solid Support, Small Molecule.
- Membrane protein and GPCR Related
- Assay, Buffers and Others

## Patents:

**AqT™ technologies:** US 9,511,150B2, US 8,907,079B2, US9,907,854B2, AU 2012284055, CN104066451B, CN107043339B, JP 6240599, EP12745599.6, CA 2841313, pending BR112014000324-6, CN201980044432.3, US17/045,286.

**oxLink™ and sxLink™ technologies:** US8907079B2, US9511150B2, and US14/965,699

**Nelon™ technologies:** US9346833B2, US9518067B2

## Founder:

Yumei Huang, a technological entrepreneur with profound interest and experience in the conjugation field. Dr. Huang has a PhD in Chemistry from CWRU and received postdoctoral training in biology under Nobel Laureate H. Gobind Khorana from MIT.

## News Highlights/Awards

**11/2010:** Voted one of “Five startups to watch” by MHT

**09/2012:** Awarded Phase I SBIR grant from NIGMS/NIH for developing new crosslinking technologies for transient molecular complex characterization.

**03/2015:** Awarded DoD/CDMRP Breast Cancer Research Program Breakthrough Award for the development of new AqT® delivery technologies.

**04/2016:** Received the 2015 Joseph R. Carter Innovation Award from MBI and MBC.

**Dec. 2016,** 1<sup>st</sup> PerKit product (single label HRP-Oligo Conjugate).

**Dec. 2017:** 1<sup>st</sup> ADC Kit (Antibody MMAE Conjugation Kit).

**Mar. 2021:** AqT® kit (AqT® Biotin Antibody Labeling Kit).

**Sept. 2023:** 1<sup>st</sup> routine synthesis for medium and large-scale ADC.

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