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# ACUTE MYELOID LEUKEMIA COMBINATION THERAPY

## THERAPEUTICS

Combination therapy that pairs a cytotoxic stabilizer with a proven cancer drug to reduce the side effects and increase the efficacy of Acute Myeloid Leukemia treatments.

### TECHNOLOGY TYPE

Drug Delivery  
Antibody and Peptides  
Oncology  
Drug Repurposing  
Biologics  
Small Molecule  
Acute Myeloid Leukemia

### STAGE OF DEVELOPMENT

- Proof of concept established through in vitro testing.  
  
- Ongoing efficacy testing in animal models.

### IP PROTECTION

#### Nationalized PCT Pending in the United States

HPMA-Drug Conjugates for the Treatment of Acute Myeloid Leukemia  
*US20180214560A1*

### LEARN MORE

Reference Numbers: U-5966, U-5967

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### TECHNOLOGY SUMMARY

Acute Myeloid Leukemia (AML) is an aggressive cancer with a five-year survival rate under 50 percent. In fact, only about one-third of AML patients are considered healthy enough to safely undergo chemotherapy, which leaves many patients without treatment options.

The proposed technology combines known AML drugs with HPMA polymers to prolong the active half-life of the drugs. This improves targeting of the tumor site and reduces off-target side effects. As each drug works through a different mechanism, the cancer cells are eliminated more completely, meaning lower doses of the drug may be used. This therapy provides treatment options for patients too sick to undergo chemotherapy or who prove non-responsive to existing, first-line treatments.

### FEATURES AND BENEFITS

- Improves AML treatment efficacy.
- Provides a second-line therapy for reoccurrence.
- Reduces side effects.
- Repurposes an existing drug for use in patients otherwise too sick for chemotherapy.

### RECENT PUBLICATIONS

Zhang, R., Yang, J., Zhou, Y., Shami, P.J., Kopeček, J. (2016). N-(2-hydroxypropyl)methacrylamide copolymer-drug conjugates for combination chemotherapy of acute myeloid leukemia. *Macromolecular Bioscience*. 16(1):121–128. doi: [10.1002/mabi.201500193](https://doi.org/10.1002/mabi.201500193)

### INVENTOR PROFILE

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DATE UPDATED: 8/13/2019