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# NEXT GENERATION MULTI-PAYLOAD ANTIBODY DRUG CONJUGATE THERAPEUTICS

Next generation Antibody Drug Conjugates (ADC) with unique polymer linker chemistry and high efficacy tumor targeting and minimal off-target toxicity.

## TECHNOLOGY TYPE

Drug Delivery  
Antibody and Peptides  
Oncology  
Biologics  
Platform Method  
Combination Therapy  
Immunotherapy  
Non-Hodgkin's Lymphoma  
Antibody-Drug Conjugate

## STAGE OF DEVELOPMENT

- Proof of concept in mouse lymphoma models.

- Extensive characterization of MOA, ADC internalization, and PK studies.

## IP PROTECTION

**Nationalized PCT Pending in the United States, Japan, and Europe**

Antibody-Polymer-Drug Conjugates  
WO2018071767A1

## LEARN MORE

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## TECHNOLOGY SUMMARY

ADCs are empowered antibodies designed to harness the targeting ability of monoclonal antibodies by linking them to cell-killing agents to overcome toxicity issues. One of the major limitations of ADCs is having an appropriate linker.

The proposed technology improves the linker, making it possible to create an ADC that possesses high specificity and the advantages of macromolecular therapeutics. The technology involves a controlled living polymerization technique that results in a well-defined HPMA polymer-drug conjugate, followed by specific attachment to an antibody to generate a homogenous ADC with an adjustable amount of payload. Lead ADC, RTX-P-EPI (Rituximab conjugated to Epirubicin) has been well characterized for high linker stability, homogenous ADC mixture, and ADC internalization.

## FEATURES AND BENEFITS

- Favorable PK properties.
- ADC is internalized with strong reduction in tumor burden.
- Stable and biodegradable HPMA linker.
- Scalable linker chemistry with rapid customization of new ADCs.

## RECENT PUBLICATIONS

Zhang, L., Fang, Y., Kopecek, J., Yang, J. (2017). A new construct of antibody-drug conjugates for treatment of B-cell non-Hodgkin's lymphomas. *European Journal of Pharmaceutical Sciences*. 103:36- 46. doi: [10.1016/j.ejps.2017.02.034](https://doi.org/10.1016/j.ejps.2017.02.034).

Yang, J. and Kopecek, J. (2017). The light at the end of the tunnel – second generation HPMA conjugates for cancer treatment. *Current Opinion in Colloid and Interface Science*. 31:30-42. doi: [10.1016/j.cocis.2017.07.003](https://doi.org/10.1016/j.cocis.2017.07.003).

## INVENTOR PROFILE

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