

# A new method for treating chronic itch

## Unmet Need

Cutaneous T-cell lymphomas (CTCL) are the most common primary skin lymphomas, and clinically, about 90% of CTCL patients suffer from severe chronic itch. This significantly impacts patients' emotional, functional, and psychological well-being. In patients with lymphomas, pruritus is frequent, severe, and unrelieved by emollients, topical steroids, or oral antihistamines. Thus, there is an urgent demand for the development of new anti-itch therapeutics.

## Technology

Researchers at Duke and UNC have identified a new method for treating chronic itch after lymphoma intended to treat CTCL patients. This is accomplished by targeting microRNA-711 and its interaction with TRPA1 ion channel. Disruption of the microRNA-711 and TRPA1 ion channel interaction with a blocking peptide alleviates chronic itch. This technology was demonstrated in mouse models.

## Other applications

Patients with chronic itch from other conditions such as eczema, psoriasis, viral infections, and opioid treatments may also benefit from this discovery.

## Advantages

- Identifies microRNA-711 inhibitors as a new anti-itch treatment strategy for cutaneous T-cell lymphoma patients
- May offer effective and safer therapies for lymphoma-associated chronic itch
- Could be a treatment strategy for other sources of chronic itch

## Publications

- [miRNA-711 binds and activates TRPA1 extracellularly to evoke acute and chronic pruritus \(Neuron, 2018\)](#)

# Duke

## LICENSING & VENTURES



### Duke File (IDF) #

T-005252

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### Links

- [From the lab of Dr. Ru-Rong Ji](#)

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