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## ONCOLOGY

# Myeloid leukemia treatment with thioridazina analogues

### Applicants

Università degli Studi Padova, Istituto di Ricerca Pediatrica Città della Speranza

### Inventors

Martina Pigazzi, Claudia Tregnago, Romeo Romagnoli

### Priority Date

06/09/2019

### Protection

IT Patent: IT102019000015809  
PCT Extension Ongoing

### TRL scale

Discovery

Lead Optimization

Preclinical

Clinical Phases

## What's needed for?

The invention relates to new thioridazine analogue compounds as a treatment for acute myeloid leukemia. In particular, the compounds show high cytotoxic activity on pediatric acute myeloid leukemia (AML) cells harboring a specific genetic rearrangement.

The compounds have been designed to reduce central nervous system (CNS) side effects for pediatric applications.

Without being bound to any theory, the inventors deem that a compound triggers a rise in intracellular  $Ca^{2+}$  with a novel cell death mechanism never exploited in pediatric AML.

The molecule is a candidate as a new drug to be introduced in combined therapy for the treatment of pediatric acute myeloid leukemia with a specific genetic rearrangement. The invention belongs to the field of research to improve the treatment of these tumors which is still based on cytotoxic chemotherapy neither specific nor selective against tumor cells only.

## Advantages

- Potential target therapy for AML
- Mechanism never being exploited in AML
- Absence of damage to CNS
- Ideal for pediatric

## Applications

Use as a medicament in the treatment of AML and especially a pediatric AML harboring a specific rearrangement.