

# **RESEARCH TOPIC CLI30**

# The role of autoantibodies to predict autoimmunity in patients with Thymic Epithelial Tumors (TETs)

# **Research Area**

Medical Area

# **Clinical Unit name**

Uroncological Tumors and Rare Tumors of the Chest Section, Medical Oncology and Hematology Unit, IRCCS Humanitas Research Hospital

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#### **Abstract**

TETs, subdivided in Thymomas (T) and Thymic Carcinoma (TC), are rare mediastinal cancers. TETs affect a primary lymphoid organ playing a crucial role in keeping T-cell homeostasis and ensuring an optimal degree of immunologic tolerance against "self". Moreover, T, but not TCs, are often associated with autoimmune diseases (ADs). This association represents a clinical challenge affecting the quality and duration of life of these patients. Moreover, this comorbidity makes even more difficult the administration of those novel immunotherapies due to the higher risk of exacerbating autoimmunity in these patients. The pathophysiological links between TETs and autoimmunity as well as the dichotomy between T and TC in their co-morbidity with ADs are completely unknown.

Aim of this research proposal is to evaluate the autoantibody profile of patients with TETs undergoing radical surgery or candidates for systemic treatment, in order to allow an early diagnosis of potential ADs, even in the subclinical phase. By assessing autoantibody fluctuations during patient follow-up, analyzing the possible correlation of specific autoantibodies with distinct TET subtypes, and providing a deep characterization of B cells and BCR repertoire, this study also aims to provide insights into the comprehension of the reciprocal interactions between the tumor and autoimmune processes underlying TETassociated autoimmunity.

#### Scientific references

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# Type of contract

Contract for continuative and coordinated service of at least € 26.000 activated Istituto Clinico Humanitas. This sum is subject to IRPEF income tax.

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