European Consortium for Anticancer Antibody Development (EUCAAD)

Research Areas

- Tool Development

At a Glance

- Status: Completed Consortium
- Year Launched: 2008
- Initiating Organization: European Commission Sixth Framework Programme (FP6)
- Initiator Type: Government

Abstract

Mission

Cancer is the second leading cause of death in European countries, and one of the most imminent health problems in the developed world. Innovative, targeted therapies are urgently needed that aim specifically at cancer cells or to cells of the stroma that support tumor growth. The ultimate goal of a targeted therapy is to increase anti-tumor efficacy with lowest possible side effects. Rapid and efficient translation of basic scientific advances into reagents, and targeted molecular leads for preclinical and clinical research and development based on scientific rationales and state-of-the-art technologies, optimally require an interdisciplinary, collaborative, team-oriented approach. The European Consortium for Anticancer Antibody Development (EUCAAD) represents a virtual research institute in Europe and consists of nine research participants including four small to medium-sized enterprises (SMEs) devoted to the discovery and evaluation of new antibodies for therapy of human cancers. The consortium consists of researchers from SMEs and scientific and clinical centers that have gained international acclaim in this area of research, many of whom have worked together in previous European Union–funded applications (e.g., ANGIOSTOP, EUCAPS, ESTDAB, and ENACT). Within the
Consortium there is unique expertise regarding target discovery, target validation, antibody production, and initiation of clinical trials. As part of the efforts to translate laboratory research into viable cancer therapies the individual partners have accumulated an extensive portfolio of intellectual property providing a competitive edge to this application. The focus of the consortium is the development and evaluation of antibodies against new target structures on tumor cells and blood vessels supplying tumors, which are responsible for tumor angiogenesis, progression, and metastasis. Collectively, the consortium’s activities can improve the cancer treatment standards in Europe and provide economic benefit to European biotechnology and pharmaceutical research by providing novel immunopharmaceuticals.

Consortium History

May 2008: Project start
April 2012: Project end

Financing

The European Union has contributed €6.0 million of the €7.9 million total cost.

Impact/Accomplishment

EUCAAD partners combined two approaches to generate a vaccine against the angiomotin (AMOT) protein, which is selectively expressed on endothelial cells of angiogenic tissues. When used in a preclinical mouse model, inhibition of neovascularization and tumor growth was observed and attributed to natural killer cell-mediated cell cytotoxicity. Antibodies against other AMOT partners such as AMOTL1 and AMOTL2 were also proposed as potential avenues for therapeutic exploitation.

The consortium also worked on the development of various antibodies to induce chronic lymphocytic leukemia (CLL) based on a molecule called ROR1. Targeting of ROR1, which is implicated in Wnt signaling, was shown to induce apoptosis of CLL cells.

Overall, EUCAAD successfully integrated basic science with translational research to identify...
angiogenic- and cancer-associated targets. The project deliverables have the potential to lead to the
development of novel anti-cancer drugs and vaccines, hopefully with promising therapeutic outcomes.

Links/Social Media Feed

Homepage http://cordis.europa.eu/project/rcn/88220_en.html

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