

Postdoc position at CCIT-DK, Copenhagen University Hospital, Herlev, Denmark

Postdoc position: Tumor stroma and extracellular matrix as a modulator of immunotherapy efficacy

We are seeking a highly motivated candidate for a postdoc position within the field of cancer immunology/matrix biology. The applicant must have a background in cancer biology, matrix biology, or immunology. Prior in vivo research expertise with mouse work is an advantage.

Keywords: Tumor microenvironment (TME), immunotherapy, extracellular matrix (ECM), mouse models

The research group: The project will be carried out in the Tumor Stroma and Matrix Immunology (TSMI) group at the National Center for Cancer Immunotherapy (CCIT-DK), Copenhagen University Hospital, Herlev, Denmark, a research center with a strong background in experimental and clinical cancer immunotherapy research. Several clinical immunotherapy trials are currently running at CCIT-DK, many of which originate from our own pre-clinical research results.

The TSMI group is one of five research groups at the center and is headed by Associate Professor and Lundbeck Fellow, Daniel H. Madsen. The goal of the research group is to discover molecular mechanisms by which the TME influences immunotherapy efficacy, and to use this knowledge to develop new therapeutic strategies. The TSMI group is currently studying how the ECM as well as different subsets of macrophages and fibroblasts affect the activity of tumor-infiltrating T cells. The research projects are among other things based on transgenic mouse models, 3D cell culture, and the use of clinical samples from cancer patients.

The research project: Cancer immunotherapy has had a major breakthrough within the last decade with the discoveries that endogenous cytotoxic T cells possess the ability to react against cancer cells and that the blocking of immunosuppressive signals can be sufficient for obtaining extremely impressive clinical results. Still, however, many cancer patients do not respond to immunotherapy. One likely reason for this is that the local T cell response in the tumor gets suppressed by components of the TME.

The selected candidate will work on a project within the focus area of the TSMI group. The exact research project will be defined after discussions with the applicant, taking into consideration the interests and expertise of the applicant. The project will involve methods such as 3D cell culture assays, RNA-sequencing, mouse cancer models, flow cytometry, immunohistochemistry, co-culture assays, cytokine profiling, and FACS-isolation of specific cell populations for functional assays.

Responsibilities:

- Conduct in vivo and in vitro experiments
- Independently plan and advance the research projects
- Communicate research results
- Contribute to the overall work of the group in order to achieve common goals. This includes discussions and strategic planning of projects within the group.
- Involvement in administrative and practical tasks required for the laboratory work to proceed optimally.

Start date: February 1st, 2022 or after agreement.

Duration: 3 years

Salary: Salary, pension and terms of employment will be in accordance with the regional AC-agreement. Currently, the monthly salary starts at approximately 32,500 DKK/4,500 EUR plus pension.

Application procedure:

Application deadline is December 1st, 2021.

For more information and to submit your application, please use this website:
<https://www.regionh.dk/job/s%C3%B8g-job/Sider/Region-Hovedstaden-soeger.aspx?positionid=236139>