

2021 Lecture Series

Professor Riccardo Dolcetti MD

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will present a seminar entitled

Next generation cancer vaccines exploiting improved antigen formulations and delivery platforms

Friday 1 October 2021, 11am

Institute for Glycomics
Zoom online



Abstract

Despite the ability of cancer vaccines to generate strong anti-tumour immune responses, their therapeutic efficacy is still limited. Indeed, the potency and antigen-specificity of available cancer vaccines is still unsatisfactory. Our recent work directly addressed these issues with the final goal to improve the efficacy and clinical applicability of this immunotherapeutic strategy. We have developed a clinically applicable pipeline to identify and select the most immunogenic neo-antigens generated by different types of genetic alterations in individual tumours. Therapeutic exploitation of these neo-antigens has been successfully performed by using a novel and versatile cancer vaccination platform based on the use of nanoparticles able to selectively deliver antigens to the most potent antigen presenting cells *in vivo*, thus avoiding any *ex vivo* manipulation. The feasibility and efficacy of our personalised cancer vaccines have been demonstrated in humanised mouse models that we recently developed for immunotherapy studies. Our results also demonstrate the potential of combination immunotherapies exploiting our nanoparticle-based cancer vaccines to enhance the efficacy of immune checkpoint inhibitors and CAR-T cells for the treatment of a variety of cancers.

For further information, contact

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