

## Ervaxx and Cardiff University enter collaboration to develop novel T-cell and T-cell receptor-based immunotherapeutics targeting Dark Antigens™

Collaboration also focuses on exciting research published earlier this week in *Nature Immunology* identifying MR1 as a target for novel anti-cancer immunotherapies

London, UK – 24 January 2020. Ervaxx™, a biotechnology company pioneering the use of Dark Antigens™ to develop T-cell receptor (TCR)-based immunotherapies and off-the-shelf cancer vaccines, has entered a licensing and research collaboration with a leading T-cell immunology group at Cardiff University (Cardiff, UK).

The new collaboration will support a multi-year research program with Prof. Andrew Sewell's T-cell modulation group at Cardiff University focusing on the discovery and characterization of T-cells and TCRs reactive to cancer-specific antigens and ligands, including Ervaxx' proprietary Dark Antigens™. Ervaxx will fund the program.

The collaboration will also advance exciting new research published earlier this week by the Cardiff University team in *Nature Immunology*<sup>1</sup>, where they identified a T cell clone that recognized and killed multiple different types of human cancer, while remaining inert to non-cancerous cells. The T cell clone targets MR1, an MHC class 1-related protein, via an unidentified cancer-specific ligand. These exciting findings, validated in a preclinical model, open the prospect of immunotherapies with broad utility across patients with diverse cancers. This approach into previously unexplored cell surface epitopes complements and extends Ervaxx's exploration of novel cancer-specific antigens.

Under the agreement, Ervaxx gains an exclusive license to relevant Cardiff University patents claiming T cells and TCRs reactive to cancer-specific antigens. The Company has the right to advance resulting candidate T-cell/TCR-based immunotherapeutics and cancer vaccines through development and commercialization. Cardiff University is eligible to receive milestone payments on any candidates that advance from the discovery collaboration into clinical development and royalty payments on sales of any products that reach the market.

**Prof. Andrew Sewell, Head of the T-cell modulation group, Cardiff University, commented:**

*"Ervaxx's Dark Antigens, which are derived from the 98% of the genome that does not encode known proteins, constitute a promising and yet untapped source of targets for immunotherapies. This collaboration will use our world-class expertise in T-cell biology to identify T cells and TCRs reactive to those targets and pave the way for a new wave of treatments in cancer, and potentially other areas. This includes our most recent discovery, published in *Nature Immunology*, of a T-cell clone that targets MR1 to recognize and kill cancer cells, irrespective of cancer or human leukocyte antigen (HLA) type, offering opportunities for pan-cancer, pan-population cancer immunotherapies."*

**Kevin Pojasek, CEO of Ervaxx, said:**

*"We are excited to announce this collaboration with Prof. Sewell's world-class research group. We have great hope that through the combination of this expertise with our Dark Antigens™ and application of our EDAPT™ platform, we will be able to identify further targets to expand our portfolio*

*of TCR-based therapies and cancer vaccines. We are also thrilled to contribute to the development of the group's exciting new MR1 research, which shows early but enormous potential for the treatment of cancers. This partnership, which follows those with the University of Oxford, University of Cambridge and Johns Hopkins University School of Medicine, reinforces our ambition to collaborate with leading academic institutions and be at the cutting edge of the T-cell immunology field to drive the development of novel off-the-shelf cancer therapies."*

Prof. Andrew Sewell is a member of Ervaxx' Scientific Advisory Board.

<sup>1</sup> Crowther, M.D., Dolton, G., Legut, M. et al. Genome-wide CRISPR–Cas9 screening reveals ubiquitous T cell cancer targeting via the monomorphic MHC class I-related protein MR1. Nat Immunol (2020) doi:10.1038/s41590-019-0578-8

**ENDS**

#### **About Ervaxx™**

Ervaxx is pioneering the use of Dark Antigens™ to deliver targeted immunotherapies for treating and preventing cancer. Ervaxx Dark Antigens derive from vast untapped expanses of genetic 'dark matter' beyond the normal coding regions of the genome, which are generally silenced in normal tissue but can become selectively activated in cancer.

Ervaxx' powerful, proprietary EDAPT™ platform has been developed to discover and validate Dark Antigens providing an in-depth assessment of candidate antigens on primary tumor cells along with their immunogenic potential. The EDAPT platform has identified proprietary antigens that map to multiple solid tumor types and generate robust, antigen-specific T-cell responses. Ervaxx is advancing a pipeline of T cell receptor (TCR)-based therapies, off-the-shelf cancer vaccines and other immunotherapies leveraging these insights into the role of Dark Antigens in cancer.

Ervaxx was co-founded by SV Health Investors and is based on pioneering research at the Francis Crick Institute (London, UK). The company has offices in London, UK and a laboratory in the Bioescalator Building at Oxford University, UK. Ervaxx also has a strategic partnership with a global pharmaceutical company.

For more information visit: [www.ervaxx.com](http://www.ervaxx.com)

*Ervaxx™, Dark Antigen™ and EDAPT™ are trademarks of Ervaxx Limited*

#### **About the T-cell Modulation Group, Cardiff University**

Cardiff University T-cell modulation group, within the Division of Infection and Immunity, consists of 16 researchers with a diverse skill and knowledge base that covers all areas of T-cell biology including T-cell genetics, molecular biology, protein chemistry, crystallography, and cell biology. The overall goal of the T-cell modulation group is to understand the genetic, biochemical and cellular mechanisms that govern T-cell responses to human disease. Our research outputs are extremely wide ranging and include basic studies which are aimed at understanding how the T-cell immune response is regulated, through to translational studies which are aimed at developing tools, diagnostics and treatments for human diseases such as cancer, HIV, EBV, tuberculosis and many more.



**FOR MORE INFORMATION**

**Ervaxx Limited**

Kevin Pojasek, CEO

Tel: +44(0)1865618828

Email: [info@ervaxx.com](mailto:info@ervaxx.com)

**Citigate Dewe Rogerson**

Mark Swallow, Frazer Hall, Nathaniel Dahan

Tel: +44 (0)20 7638 9571

Email: [ervaxx@citigatedewerogerson.com](mailto:ervaxx@citigatedewerogerson.com)