

A NEW FRONTIER IN T-CELL ACTIVATION AND TARGETING

AGM PRESENTATION
October 10th 2017

Dr John Chiplin: Executive Chairman
Dr Richard Goodfellow: CEO
Professor Lindy Durrant: CSO

LSE: SCLP.L





DISCLAIMER

Neither the Company nor Panmure, nor any adviser or person acting on their behalf, shall (without prejudice to any liability for fraudulent misrepresentation) have any liability whatsoever for loss however arising, directly or indirectly, from the use of information or opinions communicated in relation to this presentation. Any investment or investment activity to which this communication relates is available only to Relevant Persons and will be engaged only with Relevant Persons.

This document may contain unpublished inside information with regard to the Company and/or its securities. Recipients of this document should not deal or encourage any other any other person to deal in the securities of the Company whilst they remain in possession of such inside information and until the transaction described in this document is announced. Dealing in securities of the Company when in possession of inside information could result in liability under the insider dealing restrictions set out in the Criminal Justice Act 1993 or the Market Abuse Regulation ("**MAR**"). This document may contain information which is not generally available, but which, if available, would or would be likely to be regarded as relevant when deciding the terms on which transactions in the shares of the Company should be effected. Unreasonable behaviour based on such information could result in liability under the market abuse provisions of MAR.

This document is strictly confidential and is being provided to you solely for your information and for use at a presentation to be held in connection with the Placing by the Company and may not be reproduced in any form or further distributed to any other person or published in whole or in part, for any purpose. You shall treat and safeguard as private and confidential all information contained in this document and take all reasonable steps to preserve such confidentiality. Any failure to comply with these restrictions may constitute a violation of applicable securities laws. This document is not for publication, release or distribution, directly or indirectly, and may not be taken or transmitted, in or into the United States, Canada, Japan, the Republic of South Africa or Australia and may not be copied, forwarded, distributed or transmitted in or into the United States, Canada, Japan, the Republic of South Africa or Australia or any other jurisdiction where to do so would be unlawful. The distribution of this document in any other jurisdictions may be restricted by law and persons into whose possession this document comes should inform themselves about, and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of the laws of the United States, Canada, Japan, the Republic of South Africa or Australia or any other such jurisdiction.

The securities referred to in this presentation have not been and will not be registered under the US Securities Act of 1933, as amended, (the "**US Securities Act**") or under any securities laws of any state or other jurisdiction of the United States and may not be offered, sold, resold, taken up, exercised, renounced, transferred or delivered, directly or indirectly, within the United States or to, or for the account or benefit of, any person with a registered address in, or who is resident or ordinarily resident in, or a citizen of, the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act. There will be no public offer of the securities in the United States. Neither the US Securities and Exchange Commission nor any securities regulatory body of any state or other jurisdiction of the United States of America, nor any securities regulatory body of any other country or political subdivision thereof, has approved or disapproved of this document or the securities discussed herein or passed on or endorsed the merits of the Placing or the accuracy or adequacy of the contents of this document. Any representation to the contrary is a criminal offence in the United States.

The securities will also not be registered under the applicable securities laws of Canada, Japan, the Republic of South Africa or Australia and, subject to certain exemptions, may not be offered, sold, taken up, exercised, resold, renounced, transferred or delivered, directly or indirectly, within such jurisdictions except pursuant to an applicable exemption from and in compliance with any applicable securities laws.

By attending this presentation and/or accepting a copy of this document, you agree to be bound by the foregoing limitations and, in particular, will be taken to have represented, warranted and undertaken that you have read and agree to comply with the contents of this notice including without limitation the obligation to keep this document and its contents confidential.



2 PLATFORMS, 3 PRODUCTS, 5 CANCER INDICATIONS

- ▶ **Two** disruptive immuno-oncology platforms delivering potent killer T cells without serious side effects
- ▶ **Three** lead products addressing **five** high value disease areas
- ▶ Moditope[®] platform overcomes immunosuppression and delivers potent killer T cell responses that destroy cancer in animals – lead product Modi-1 targeting breast cancer, ovarian cancer and sarcoma initially
- ▶ Lead ImmunoBody[®] product SCIB1 offers potentially curative potential in resected stage III/IV melanoma patients with survival “well beyond established norms”, mostly without disease progression
- ▶ Second ImmunoBody[®] SCIB2 defined and focused on NSCLC in combination with checkpoint inhibition



STRONG PROGRESS ON ALL FRONTS

- ▶ Landmark 5-year survival achieved in resected SCIB1 melanoma patients (90% survival including seven patients alive after 5 years)
- ▶ Production and release of new GMP batch of SCIB1 successfully completed with gold-standard manufacturer
- ▶ IND application for SCIB1 Phase 2 checkpoint inhibitor (CPI) combination trial in US to be submitted early 2018
- ▶ SCIB2 ready to be developed in NSCLC in combination with a CPI
- ▶ Ultra-efficient linked adjuvant identified for Modi-1 increasing potency up to 100-fold; process development for manufacture underway
- ▶ Patent granted in Europe for Scancell's platform DNA ImmunoBody[®] technology (in addition to US and Japan)
- ▶ Very broad IP protection for use of citrullinated peptides (Moditope[®]) for the treatment of cancer likely
- ▶ £5m raised in May to support continued Moditope[®] development
- ▶ Multiple partnering and funding discussions in progress
- ▶ New Head Office established in Oxford, UK
- ▶ New CEO identified, starting January 2018

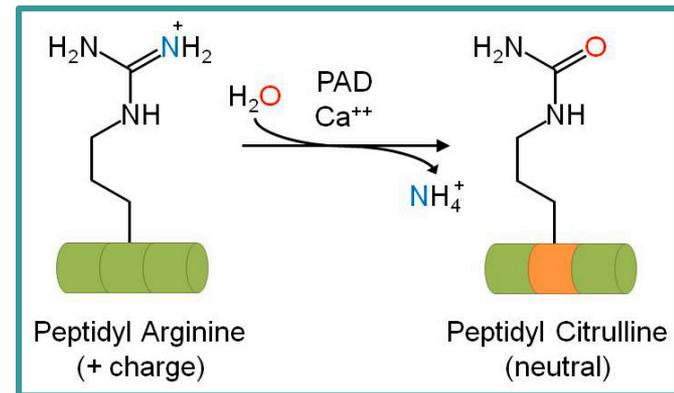


THE MODITOPE® PLATFORM

A NOVEL IMMUNOTHERAPY THAT OVERCOMES IMMUNOSUPPRESSION AND DELIVERS UNPRECEDENTED KILLER T-HELPER CELL RESPONSES

- ▶ Post-translational modifications of proteins occur under conditions of cellular stress
- ▶ One such modification involves the process of **CITRULLINATION**

- ▶ *Involves the alteration of proteins due to enzymatic conversion of arginine residues to citrulline*
- ▶ *Citrullination occurs as a result of a degradation and 'recycling' process called **autophagy** that is induced in stressed cells, including cancer cells*
- ▶ *Citrullinated epitopes presented on MHC class II*



PAD = peptidylarginine deiminase

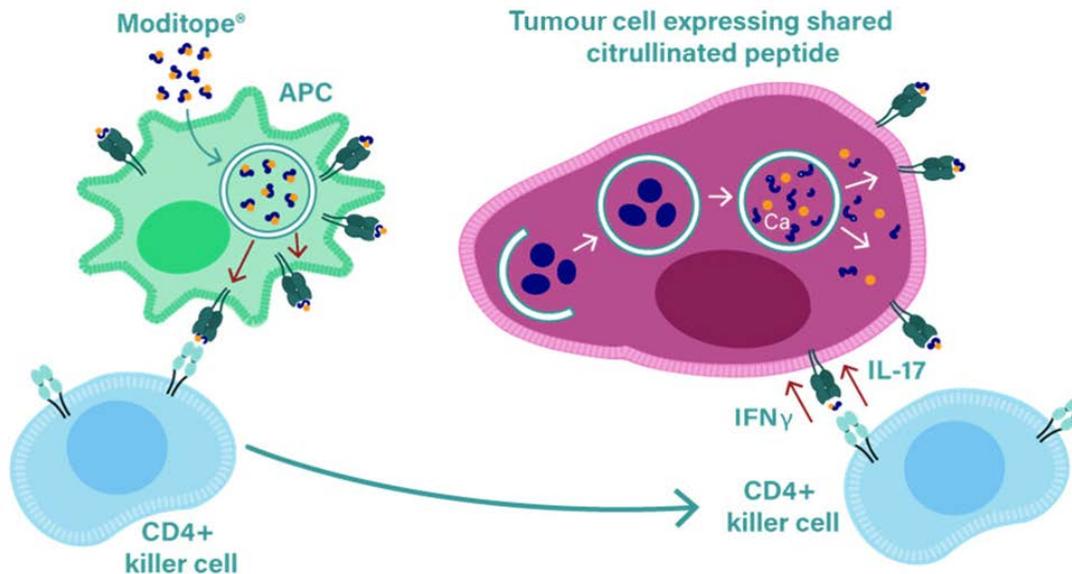
- ▶ The Moditope® platform is based on exploiting this normal immune response to stressed cells, which is largely mediated by cytotoxic CD4 T cells
- ▶ The novelty of the technology is harnessing this mechanism to eradicate tumour cells by immunizing with citrullinated peptides



MODE OF ACTION

CITRULLINATED PEPTIDES (MODITOPE®) ACTIVATE KILLER T-HELPER CELLS THAT SEEK AND DESTROY CANCER CELLS

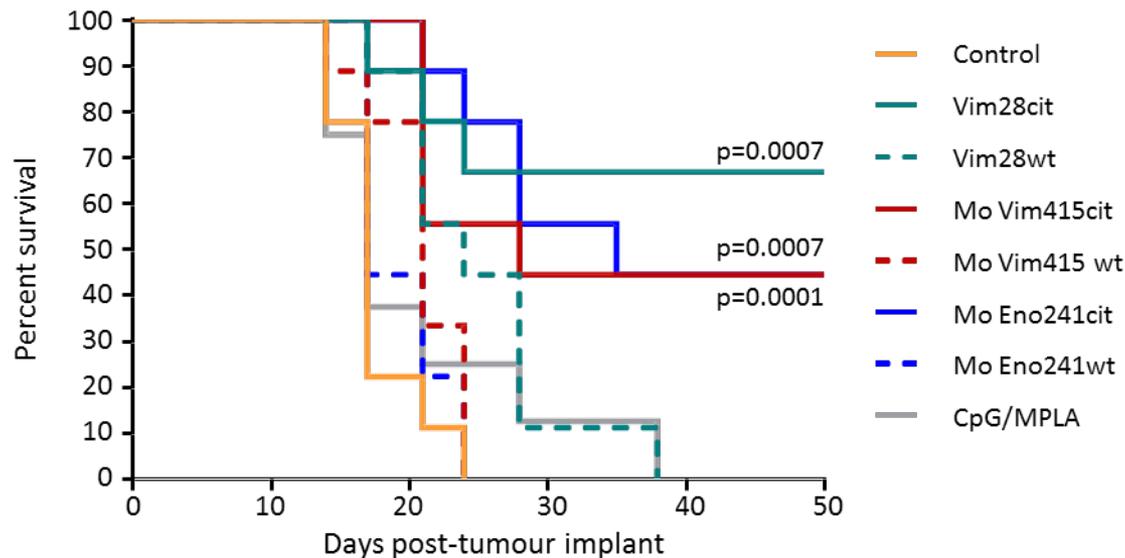
- ▶ Citrullinated tumour-associated peptides (Moditope peptides) are administered with adjuvant to activate antigen presenting cells (APCs)
- ▶ Moditope peptides are taken up by activated APCs
- ▶ APCs present peptides to CD4⁺ killer T-cells
- ▶ Primed CD4⁺ killer T-cells enter the circulation
- ▶ Stressed tumour cells undergo autophagy and produce citrullinated peptides
- ▶ CD4 T cell release IFN γ at the tumour site and induce expression of MHC-II expressing the citrullinated epitopes
- ▶ Primed CD4⁺ killer T-cells destroy cancer cells





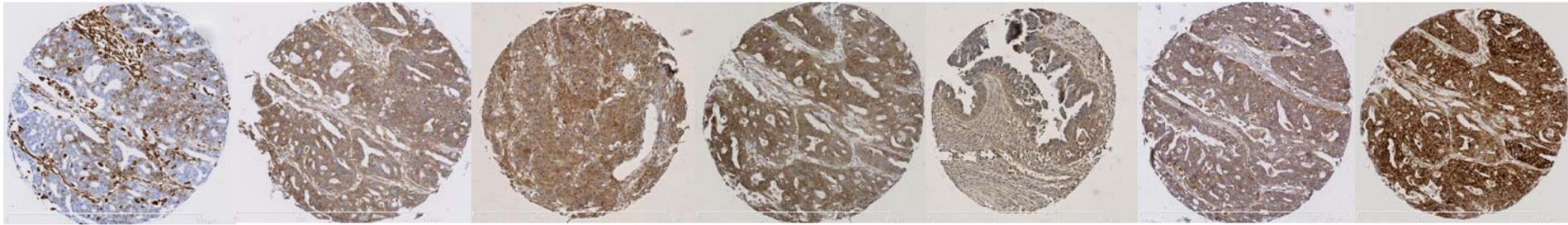
WILD-TYPE PEPTIDES DO NOT INDUCE AN ANTI-TUMOUR RESPONSE

- ▶ Citrullinated vimentin and enolase peptides induced high levels of IFN γ -secreting T cell responses in mice
- ▶ Potent anti-tumour responses induced in mice with established melanoma (B16 iDR4, iDP4), ovarian (ID8-DP4), pancreatic (Pan02-DR4) and lung (LLC4-DR4) tumours
- ▶ Wild type peptides do not induce an anti-tumour response as they are cleaved by proteases thus minimizing toxicity





MODI-1



Vimentin

Citrullinated vimentin

Enolase

PAD2

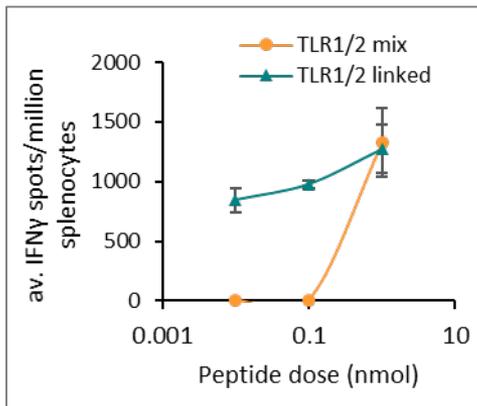
PAD4

Ambra-autophagy

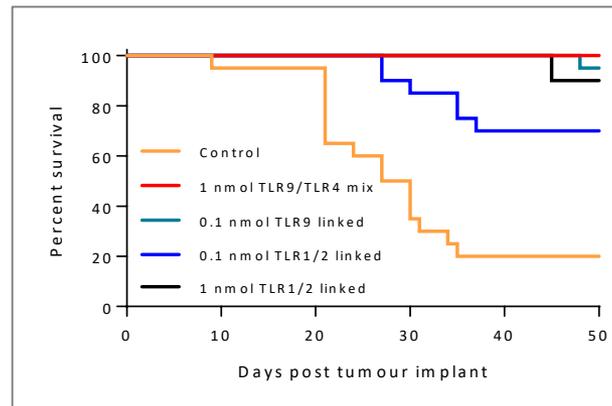
P62 autophagy

- ▶ Vimentin and/or enolase targets, PADs and autophagy are highly expressed in triple negative breast cancer (90%), ovarian cancer (95%), renal cancer and sarcoma (100%)
- ▶ Citrullinated vimentin is highly expressed
- ▶ Monoclonal antibody to citrullinated enolase was not specific so developing mass spectroscopy protocols
- ▶ Linked adjuvant allows a 10-100 fold reduction in dose
- ▶ Modi-1 induces memory responses which will prevent recurrence

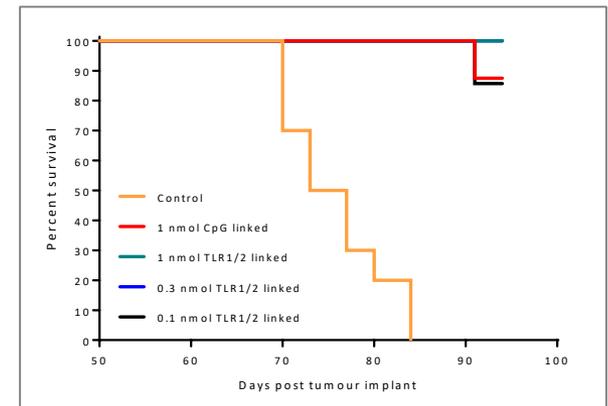
T cell response



Survival

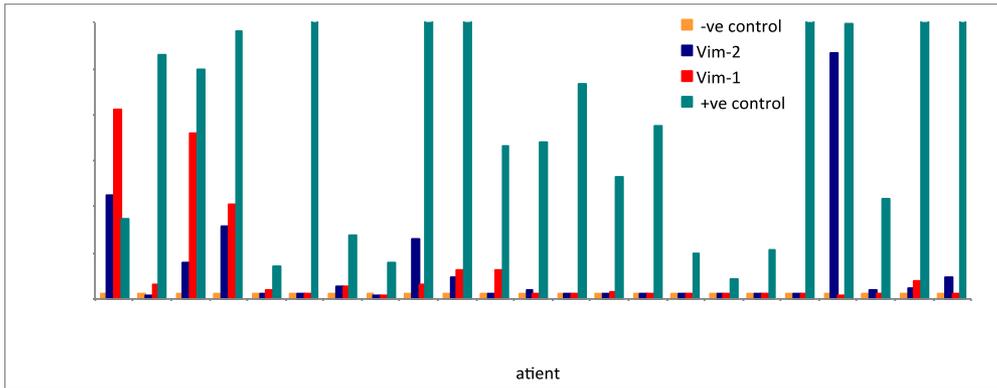


Rechallenge (survival)



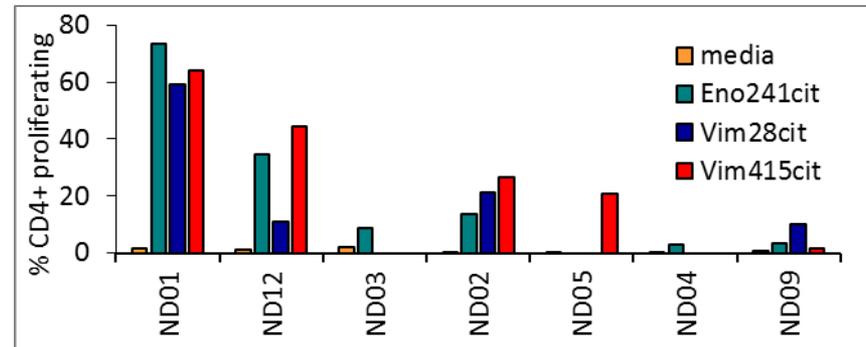
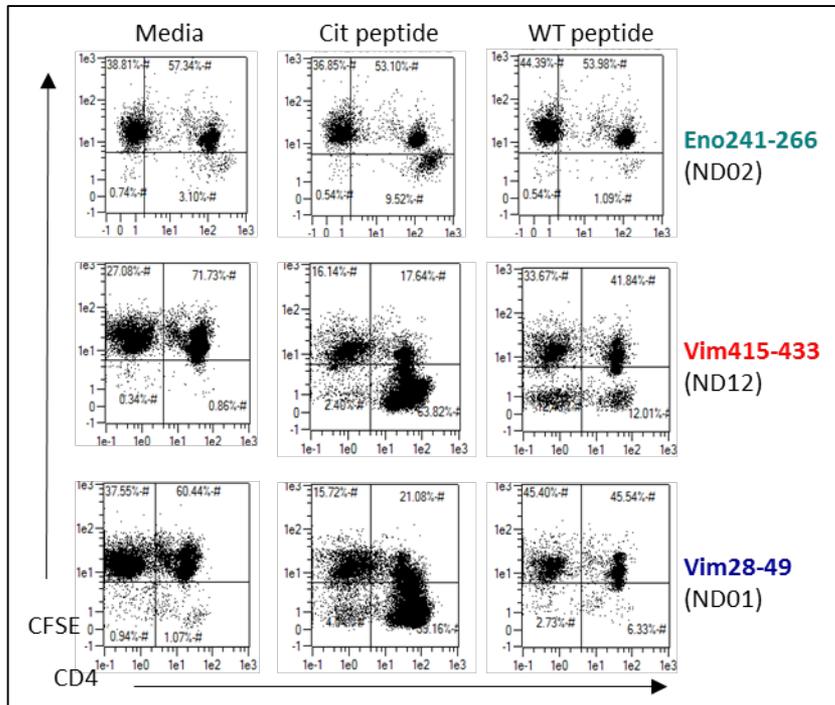


MODITOPE® RESPONSES IN CANCER PATIENTS & NORMAL DONORS



Samples from cancer patients tested in proliferation assay against citrullinated peptides

- ▶ 8/23 patients respond to Vim415cit (Vim-1)
- ▶ 8/23 patients respond to to Vim28cit (Vim-2)
- ▶ 5/23 patients respond to both Vim415cit and Vim28cit

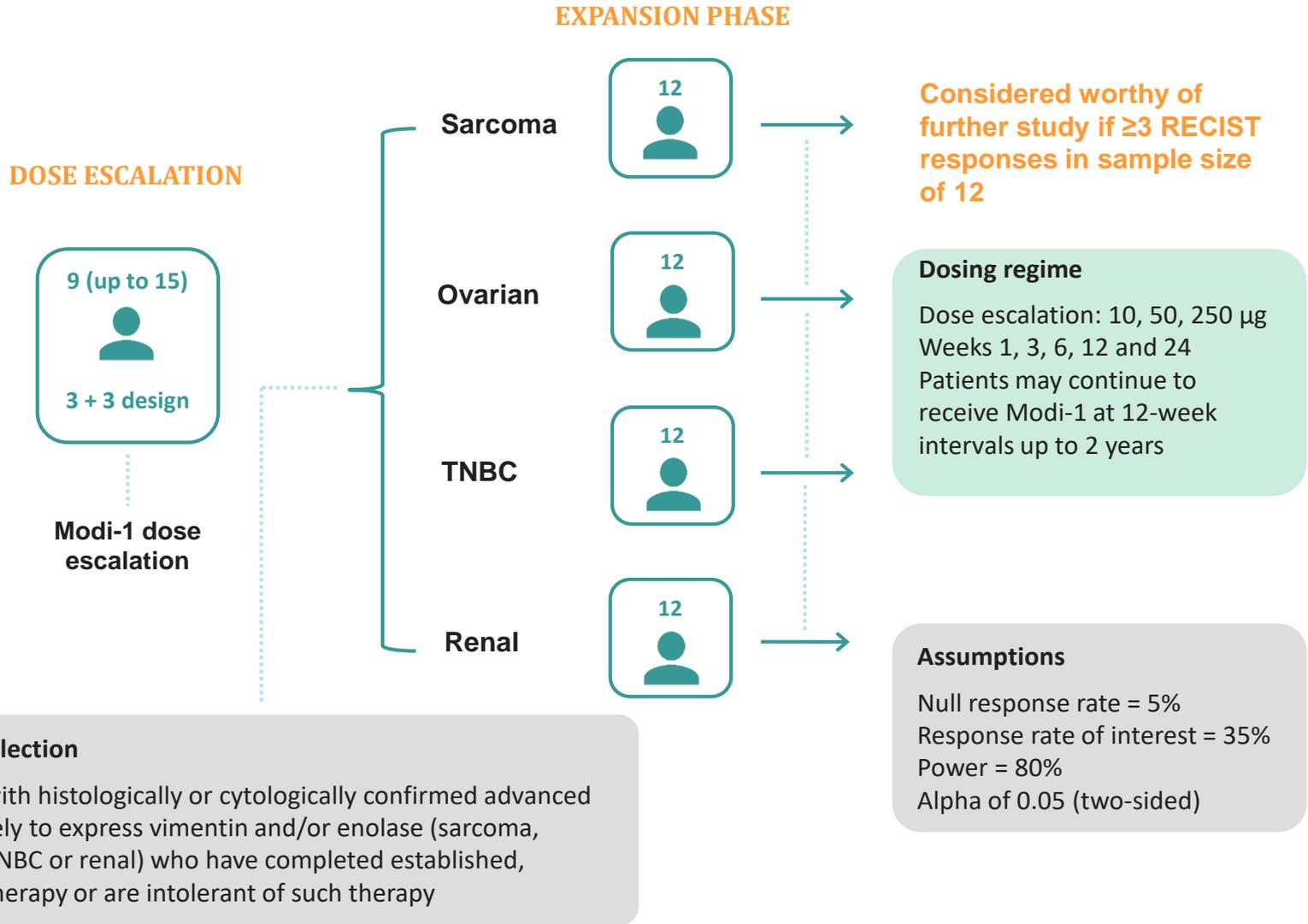


Samples from normal donors tested in CFSE proliferation assay against wild type and citrullinated peptides

- ▶ All 7 donors responded to one or more epitopes
- ▶ These assays will be used to monitor patients in the proposed clinical study



MODI-1 PHASE 1/2 CLINICAL TRIAL





TREATMENT OF ADVANCED, SOLID TUMOURS WHERE UNMET MEDICAL NEED FOR IMPROVED THERAPIES PERSISTS

- ▶ High mortality rate associated with cancer remains despite introduction of checkpoint inhibitors (CPI)
- ▶ ‘Hot’ tumours with dense T cell infiltrate respond to CPI better than ‘cold’ tumours with little or no T cell infiltrate
- ▶ Modi-1 aims to treat these large, bulky ‘cold’ tumours that do not respond to other therapies
- ▶ Sarcomas: relatively rare, not extensively studied, 5-year survival rate is only 16%
- ▶ Ovarian cancer: one of most common cancers in women, very hard to cure with standard approaches, tumours that recur after remission are usually resistant to further chemotherapy
- ▶ TNBC: accounts for 15-20% of all breast cancers (the most common cancer in the UK), heterogeneous disease, occurs most frequently in younger women and is characterised by rapid growth and metastases
- ▶ Renal cancer: 7th most common cancer in UK, 5-year survival only 12% for patients with distant metastases, still a need for more active therapies with acceptable side effect profiles



PATENTS

- ▶ European patent for citrullinated peptides for treatment of cancer about to be awarded
 - ▶ Divisional filed for nucleic acid vaccines
 - ▶ Divisional filed for the use of Moditope® T cell receptors for adoptive T cell therapy
- ▶ Patents in other jurisdictions being examined
- ▶ Patent filed on citrullinated enolase peptides for the treatment of cancer
- ▶ Patent licensed from Curara for citrullinated enolase peptide
- ▶ Patents being written for new citrullinated epitopes
- ▶ Patents being written for new modification
- ▶ Patents being written for new combinations



SUMMARY

- ▶ Moditope induces potent CD4 T cell responses that do not require CD8 T cells or checkpoint blockade to mount strong anti-tumour responses in bulky tumours
- ▶ Lead product Modi-1 (three citrullinated peptides linked to a potent and novel adjuvant) defined and ready for further development
- ▶ Five new Moditope® epitopes expressed by common solid tumours have been identified
- ▶ A new modification has been validated
- ▶ Patent family being awarded and extended
- ▶ New approaches being explored



Thank you

