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DEVELOPING ANTIBODIES AND VACCINES FOR CANCER

Positive Clinical Data for SCIB1 from first stage of Phase 2 SCOPE study

19 September 2023

LSE: SCLP.L

Disclosure Information

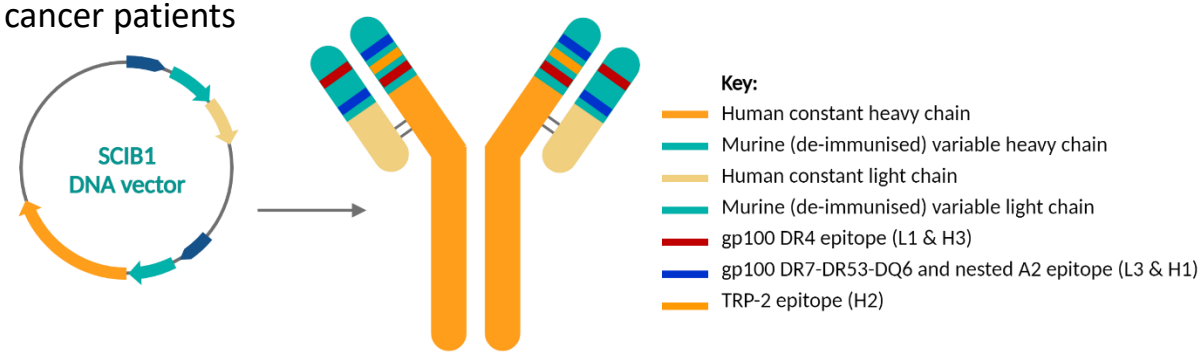
Professor Lindy Durrant

I have the following relevant financial relationships to disclose:

Employee, Shareholder and Board Member of Scancell.

SCIB1 -Non-personalised cancer vaccines

- SCIB1 incorporates epitopes from gp100 and TRP-2 antigens
- SCIB1 broadly applicable to melanoma
- gp100 and TRP-2 expressed by 100% of pigmented melanoma patients
- SCIB1 designed to induce tumour-specific, high avidity T cell responses in cancer patients



- Sequences inserted into CDRs of ImmunoBody DNA vector
- Sequences encode two HLA-A*0201 (50-60% of population) restricted CD8 epitopes (one from TRP-2 and one from gp100) and two CD4 epitopes: HLA-DR4 (25% of the population) restricted and HLA-DR7, DR53 and DQ6 (50% of the population) restricted

- Impressive Phase 2 **early efficacy data** on the first 13 patients treated with SCIB1/CPIs in melanoma showed an **85% objective response rate (ORR)**
- No toxicity from SCIB1 alone or when added to CPI treatment
- The SCOPE trial is now in the second stage (>27/43). Recruitment is expected to be complete by Q2 2024 with highly anticipated data available in Q4 2024.
- Potential new benchmark for unresectable metastatic melanoma treatment with an addressable population of 60k per annum

ImmunoBody Mechanism of Action

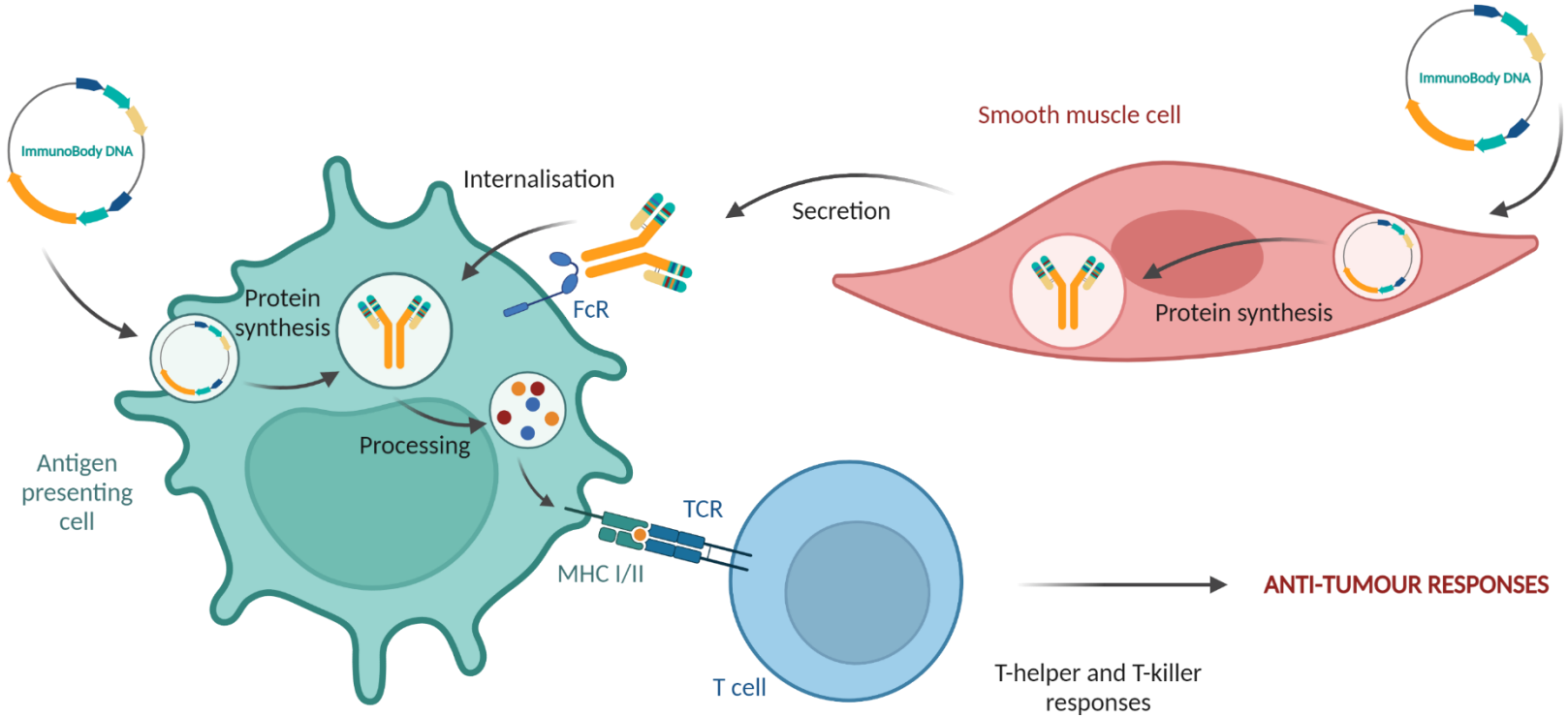
Pathway 1

Conventional Direct DNA uptake and antigen presentation by APCs

Pathway 2

Cross Presentation amplification pathway

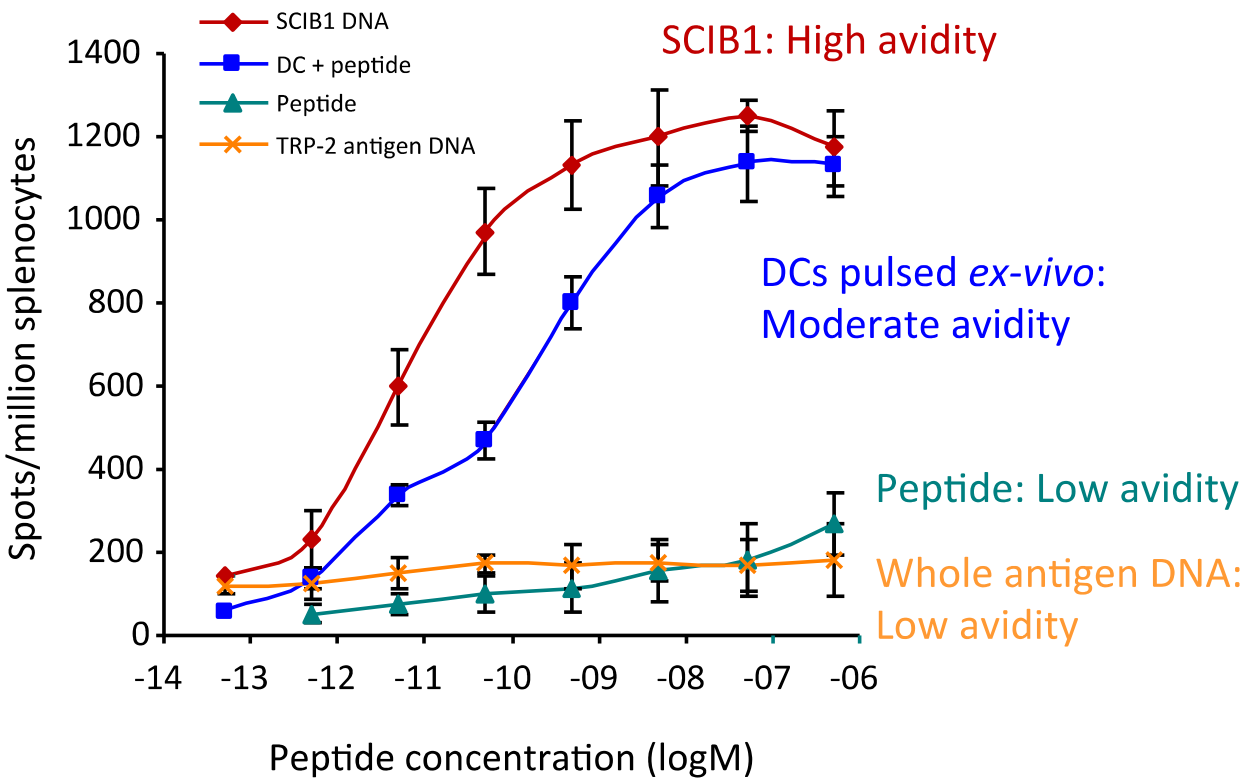
Cross presentation increases potency 100-fold over direct presentation



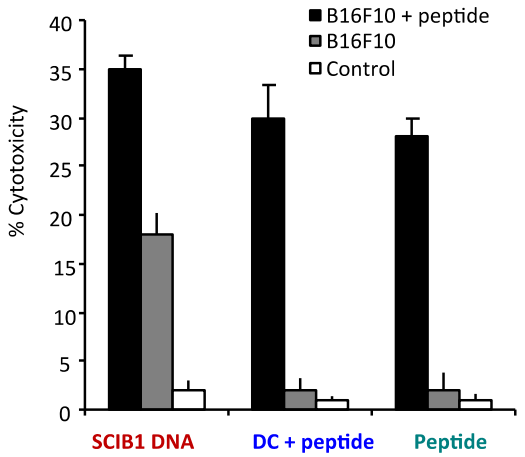
TCR = T cell receptor; MHC = Major histocompatibility complex; FcR = Fc receptor

Preclinical data

SCIB1 targeting activated dendritic cells stimulate high avidity T cells that lyse tumour cells



- Although DC + peptide and peptide immunised mice demonstrate good peptide-specific lysis, only mice immunised with SCIB1 DNA kill the B16 melanoma cell line (grey bars)



- Even moderate avidity of T cells is insufficient to kill tumour cells

SCIB1 monotherapy clinical results

Metastatic patients with tumour present at study entry

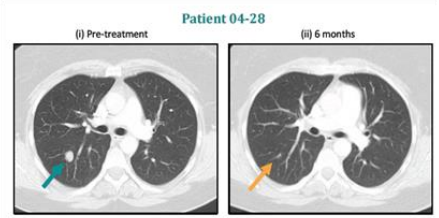
60% of melanoma patients had stable disease

COHORT 1: Dose escalation monotherapy in metastatic melanoma (15 patients)

- Two stage III/IV patients had a measurable reduction in tumour size
- Seven had stable disease for 16+ weeks

PATIENT #1

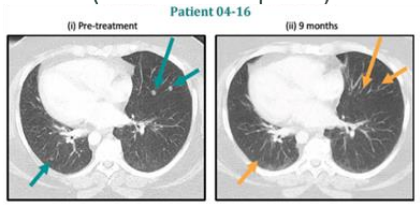
Received 8 mg and showed a marked reduction in size of detectable lung lesions



PATIENT #2

Received 4 mg and had multiple lesions decrease in size or disappear except for one lesion, which was resected

(differential response)

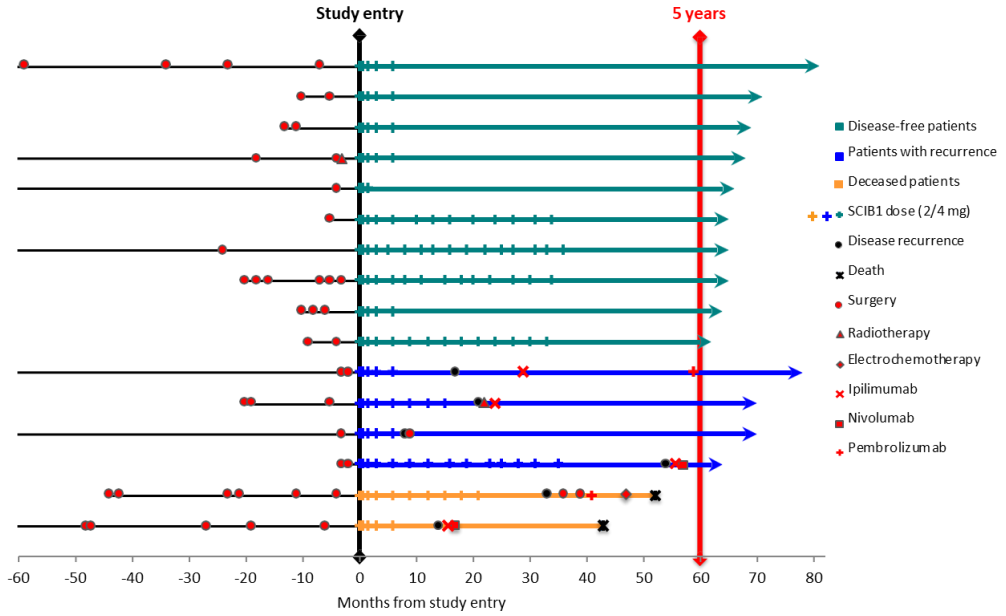


Metastatic patients without tumour present at study entry

88% of melanoma patients remained disease-free for 5+ years

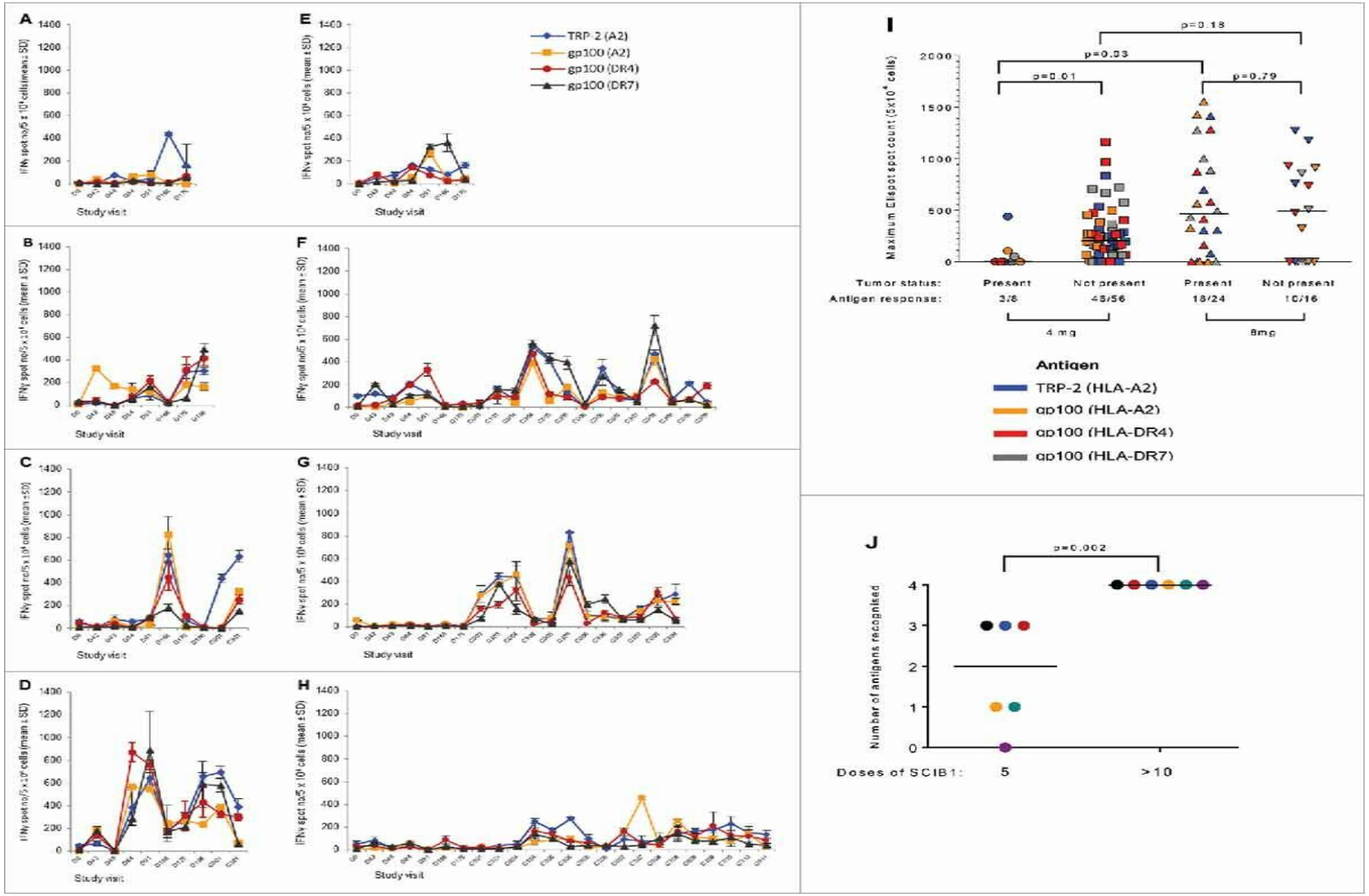
COHORT 2: Monotherapy in metastatic melanoma amenable to resection of bulky disease (16 patients)

- 14/16 (88%) stage III/IV patients receiving 2-4 mg were disease free > 5 years
- Only four had additional treatments following recurrence



Patel et al., Oncoimmunology, 2018 7(6):e1433516

SCIB1-001 Monotherapy trial results

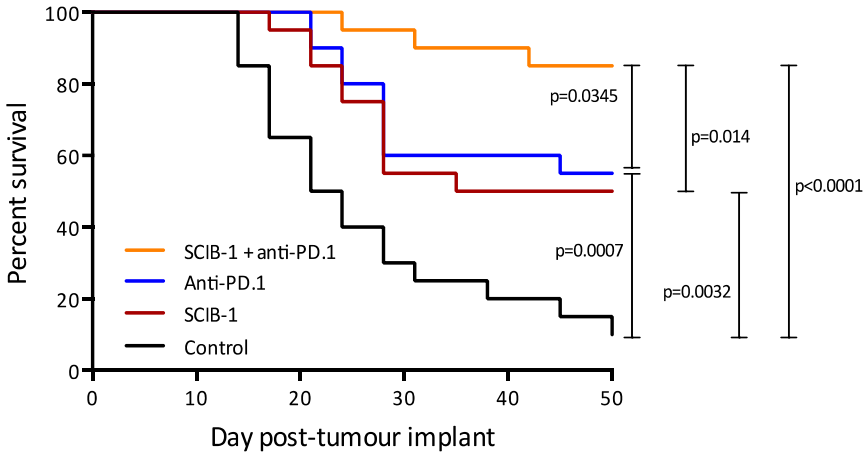


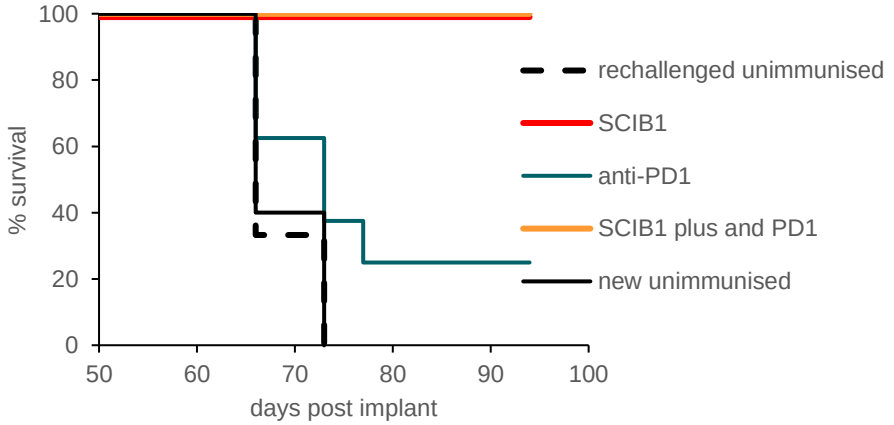
- 89% of patients showed a T cell response.
- more immunisations are required to stimulate a T cell response when tumours are present
- > 10 immunisations are required to give immune responses to all four epitopes
- 8mg doses are superior to 4mg doses

SCIB1 in combination with CPIs –anti-PD.1

SCIB1 induces memory responses

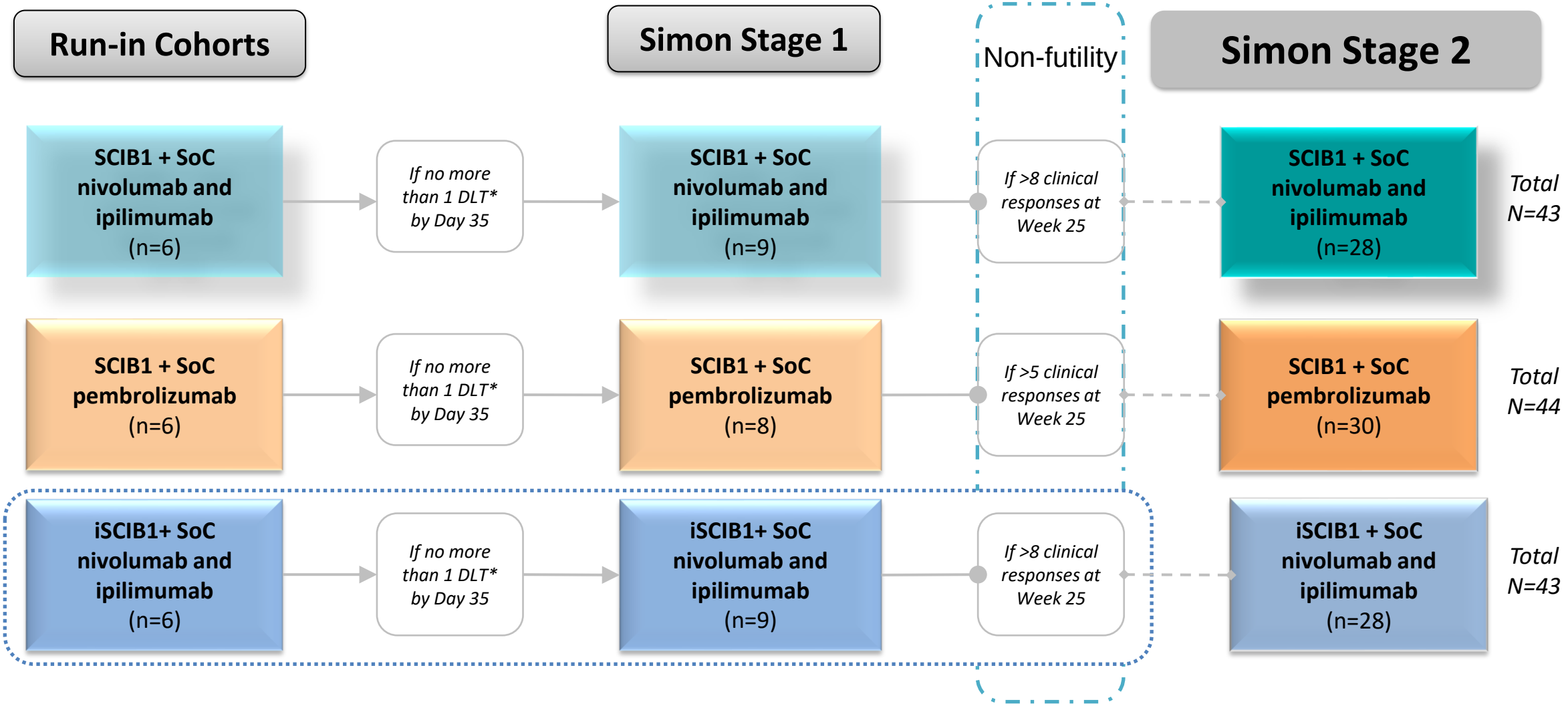
- HLA-DR4 transgenic mice implanted with B16-DR4 tumour on Day
- Mice immunised on Days 4, 7 and 11
- Immunised with SCIB1, murine-specific anti-PD.1 antibody or both SCIB1 + anti-PDI





- SCIB1 provides equivalent survival compared to inhibiting PD.1
- Combining anti-PD.1 therapy with SCIB1 significantly enhances survival, resulting in 85% survival of immunised mice (when implanted with 2.5 x 10^4 cells)
- SCIB1 induces memory but anti-PD.1 does not

SCOPE Study Design with iSCIB1+



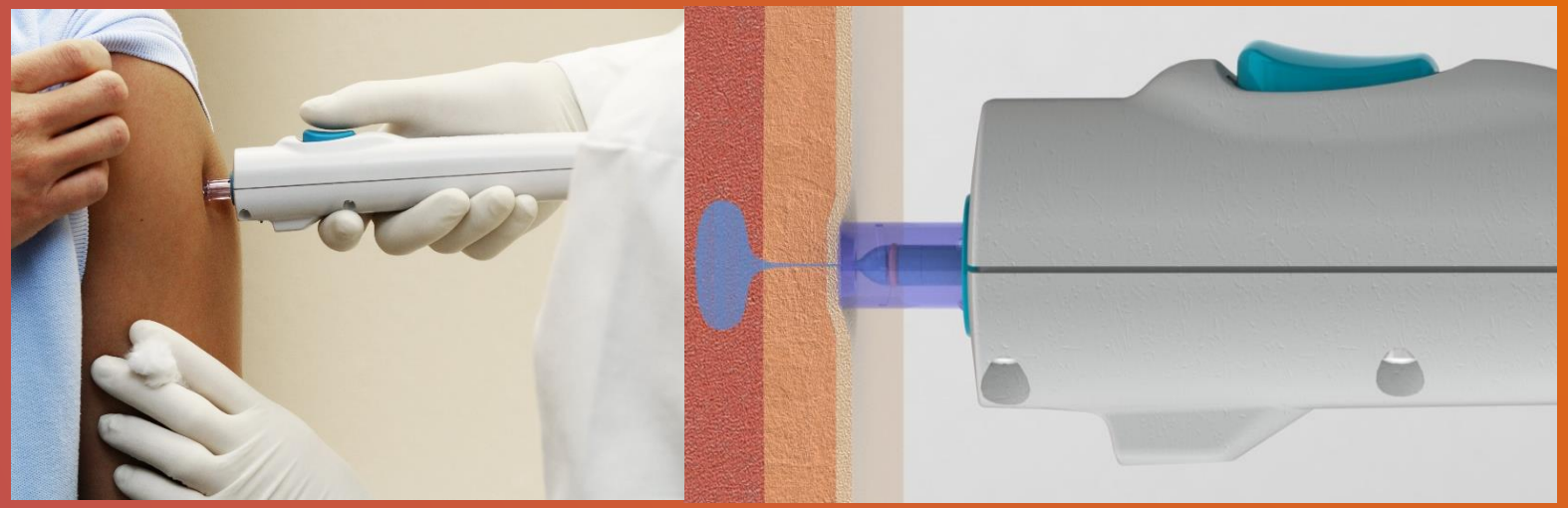
PharmaJet's Precision Delivery Systems

deliver a spring-powered injection in 0.1 seconds by means of a narrow stream of fluid that penetrates the skin with a precise dose and depth.

- ✓ **No needle**
- ✓ **Spring-powered**
- ✓ **No external power source**

Stratis® IM

Needle-Free Injection System for 0.5 ml Intramuscular



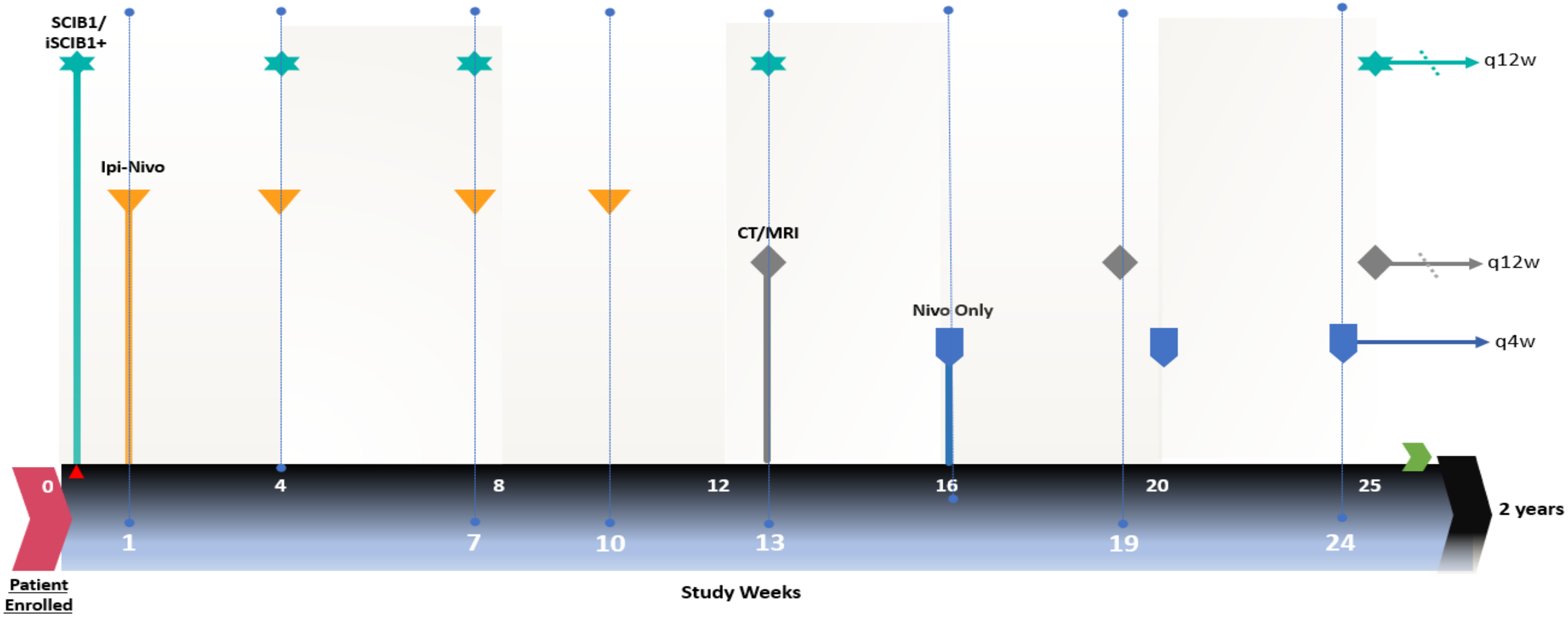
IM injection with Stratis

Target Patient Population: Inclusion (Summary)

Inclusion Criteria (Summary)	Exclusion Criteria (Summary)
Histologically confirmed, unresectable Stage III or Stage IV Melanoma	Ocular and Mucosal Melanoma
Standard of care treatment with ipilimumab+nivolumab (cohort 1) or pembrolizumab (cohort 2).	Active CNS Metastases
Not received prior systemic treatment for advanced disease. Prior adjuvant treatment permitted.	More than physiological dose of steroids
ECOG Performance Status 0 or 1.	
At least one measurable lesion per RECIST 1.1	
Human leukocyte antigen (HLA)-A2 positive	
Patient is positive for **at least one** HLA-DR4, HLA-DR7, HLA-DR53 or HLA-DQ6	

Schedule of Treatment and Assessment

Ipi^{c}= 3 mg/kg over 30 min i.v.
Nivo^{c}= 1 mg/kg over 30 min i.v.
Nivo^{m} =480 mg every 4 weeks over 60 min i.v

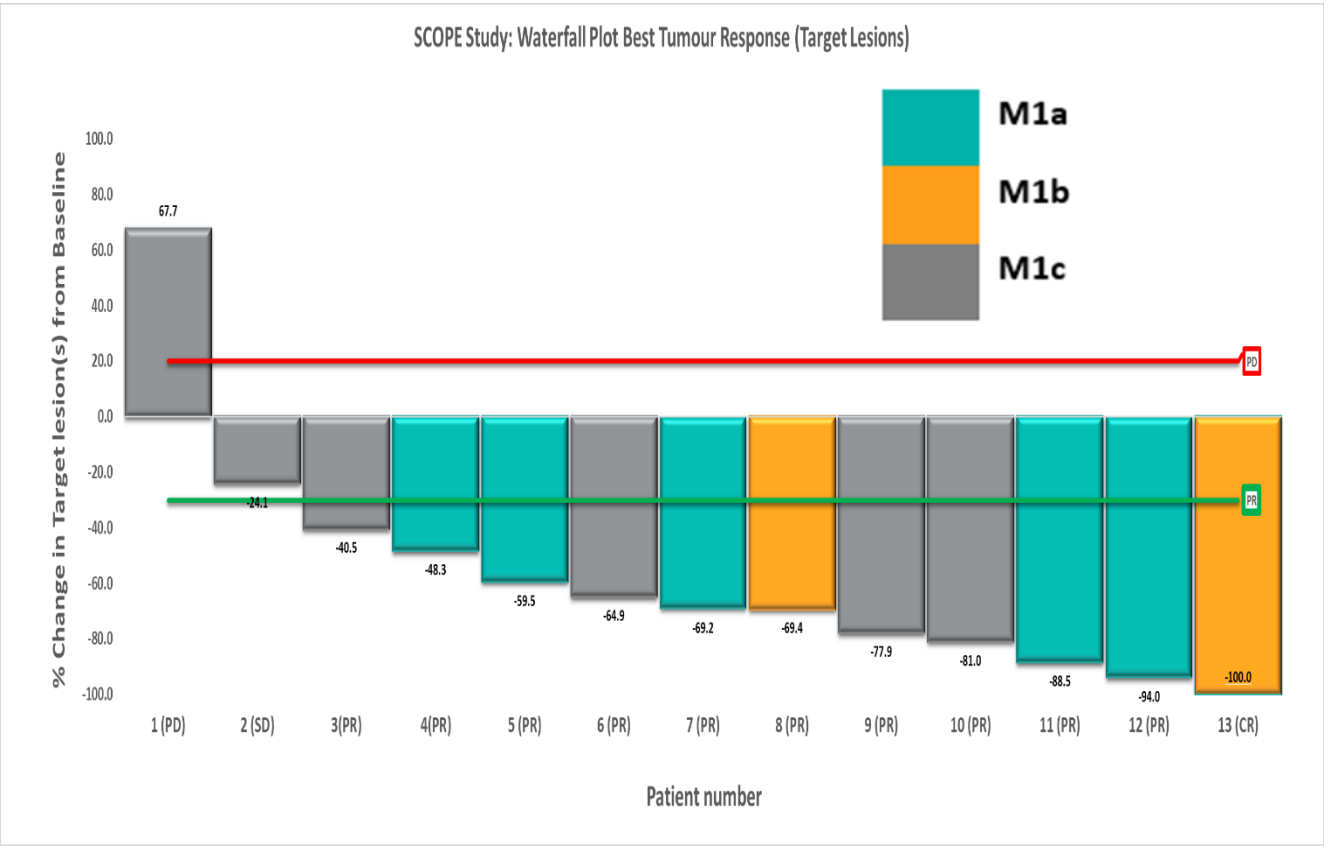


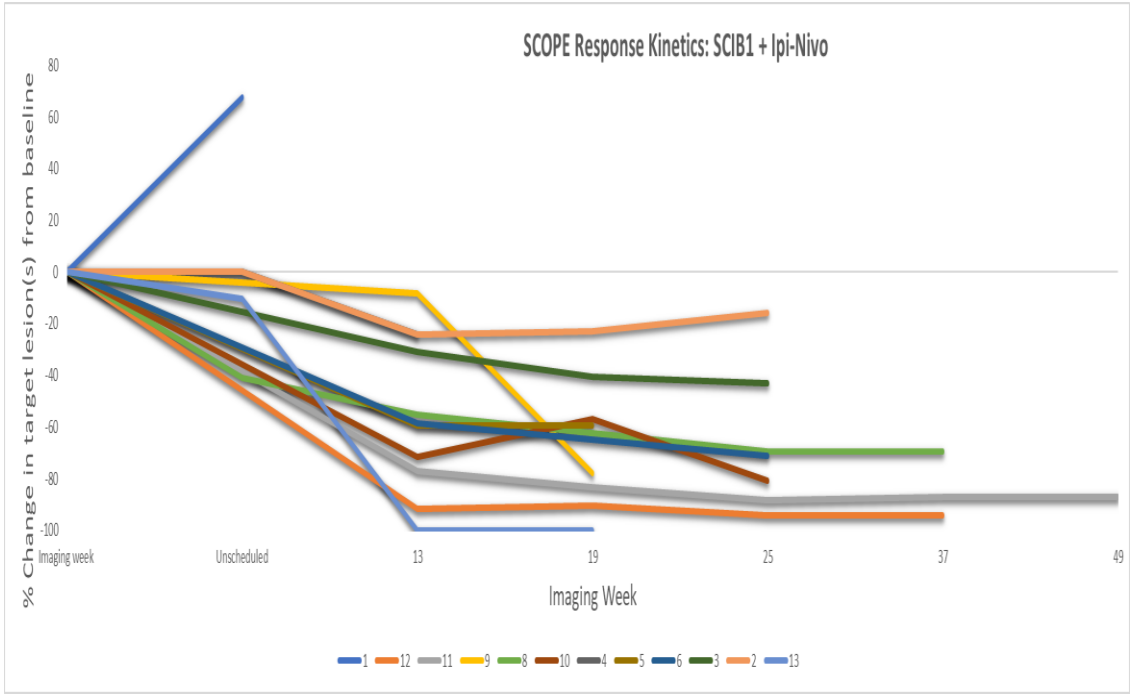
NFIS= Pharmajet Needle Free injection System

Demographics and Baseline Disease Characteristics

Evaluable Patients Only		
	Number of patients (n)	
	Cohort 1:SCIB1+ipi-nivo (n=12)	Cohort 2: SCIB1+pembro (n=3)
Gender		
Male	9	1
Female	3	2
Age		
<65	9	0
≥65- <75	1	0
≥75	2	3
Stage of disease at study entry		
IV	12	3
M1a	4	1
M1b	2	1
M1c	6	1
Braf		
Mutation	5	2
Wildtype	6	1
Lactate Dehydrogenase		
>Upper limit of normal	5	1
≤ULN	7	2
Total Tumour Burden		
≥20 mm – ≤40mm	4	2
≥41 mm -≤80mm	3	0
≥81mm-≤150mm	4	0
150mm+	1	1
Prior treatment in the adjuvant setting		
Yes	4	1
Pembrolizumab	2	1
Nivolumab	1	0
Dabrafenib and Trametinib	1	0
No	8	2

Objective Response Rate Waterfall Plot





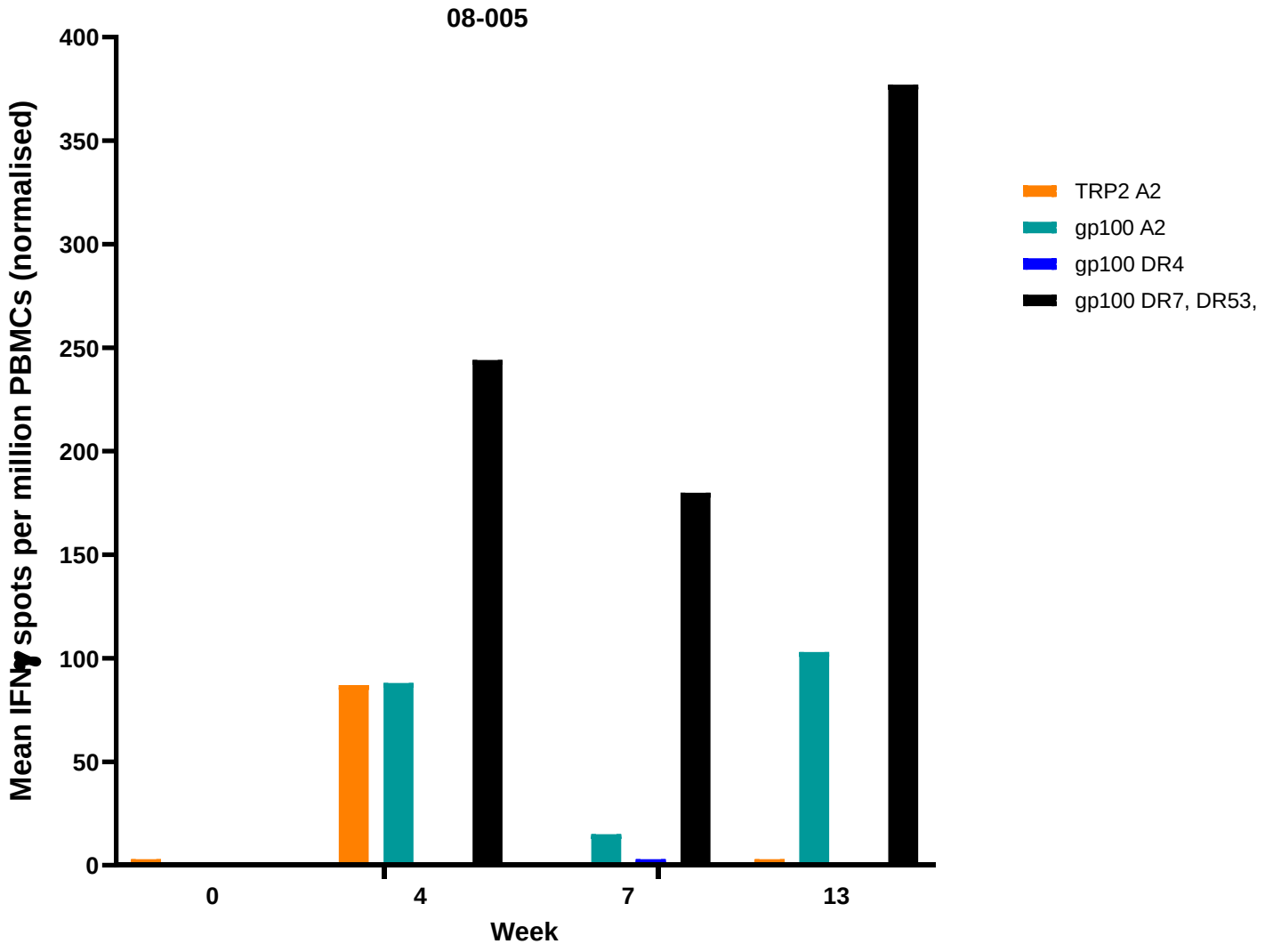
- 11/13 patients responded
- 10 confirmed partial responses at 19+ weeks
- 1 confirmed CR
- 24 patients immunised

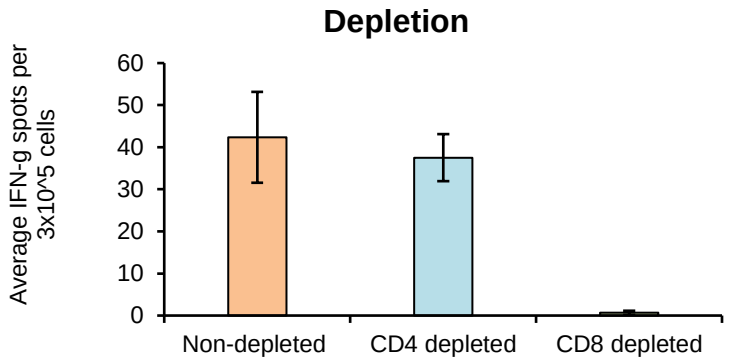
SCOPE patients – T cell responses – ipilumumab and nivolumab patients

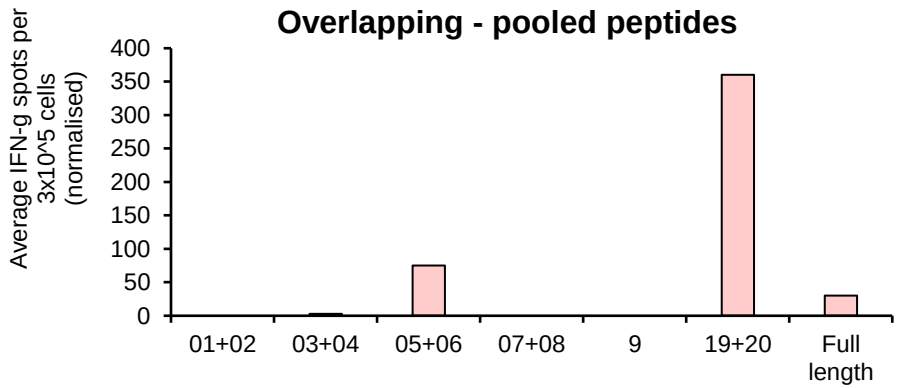
Patient	No. Doses	Steroids	On Study	HLA type	Validated ELISpot response
03-005	7	Yes	Yes	A2, A31; B7, B27; Bw4, Bw6; Cw2, Cw7; DR13, DR15; DR51, DR52; DQ6	Yes
02-004	5	Yes	Yes	A2, A29; B45, B60; Bw6; Cw6, Cw10; DR7, DR13; DR52, DR53; DQ2, DQ6	Yes
06-003	4	Yes	Yes	A2, A3; B7, B53; Bw4, Bw6; Cw6, Cw7; DR7, DR103; DR53; DQ2, DQ5	Yes
07-002	4	**No**	No	A2, A68; B62, B65; Bw6; Cw8, Cw9; DR4, DR13; DR52, DR53; DQ6, DQ8;	No
05-002	4	**No**	Yes	A2, A30; B50, B65; Bw6; Cw6, Cw8; DR4, DR7; DR53; DQ2, DQ8;	Yes
04-013	4	Yes	Yes	A2, A32, DR53,	Yes
03-002	3	Yes	No	A2, A3, DR13, DQ6	Yes
03-004	3	Yes	No	A2, A31; B44, B52; Bw4; Cw1, Cw12; DR11, DR15; DR51, DR52; DQ6, DQ7	No
03-011	3	Yes	Yes	A2, A29; B44; Bw4; Cw5, Cw16; DR4, DR15; DR51, DR53; DQ6, DQ7	Yes
08-005	3	**No**	Yes		Yes
03-008	3	Yes	No	A2, A11; B62, B62; Bw6; Cw4, Cw10; DR4, DR16; DR51, DR53; DQ5, DQ8;	Yes
03-010	3	Yes	Yes	A1, A2; B8, B60; Bw6; Cw7, Cw10; DR1, DR13; DR52; DQ5, DQ6;	No
02-003	3	Yes	Yes	-A1, A2; B44, B60; Bw4, Bw6; Cw4, Cw10; DR7, DR8; DR53; DQ2, DQ4	No

- SCIB1 received at weeks 0, 4, 7, 13, 25 then every 12 weeks, unless patient receives steroids for the treatment of CPI related tox
- 9/13 (64%) patients have detectable T cell responses by ELISpot.
- Blood taken 3 weeks post immunisation , recent results on our other trial has increased response rate from 55% to 83% by taking blood earlier at 1 week post immunisation

ELISpot responses



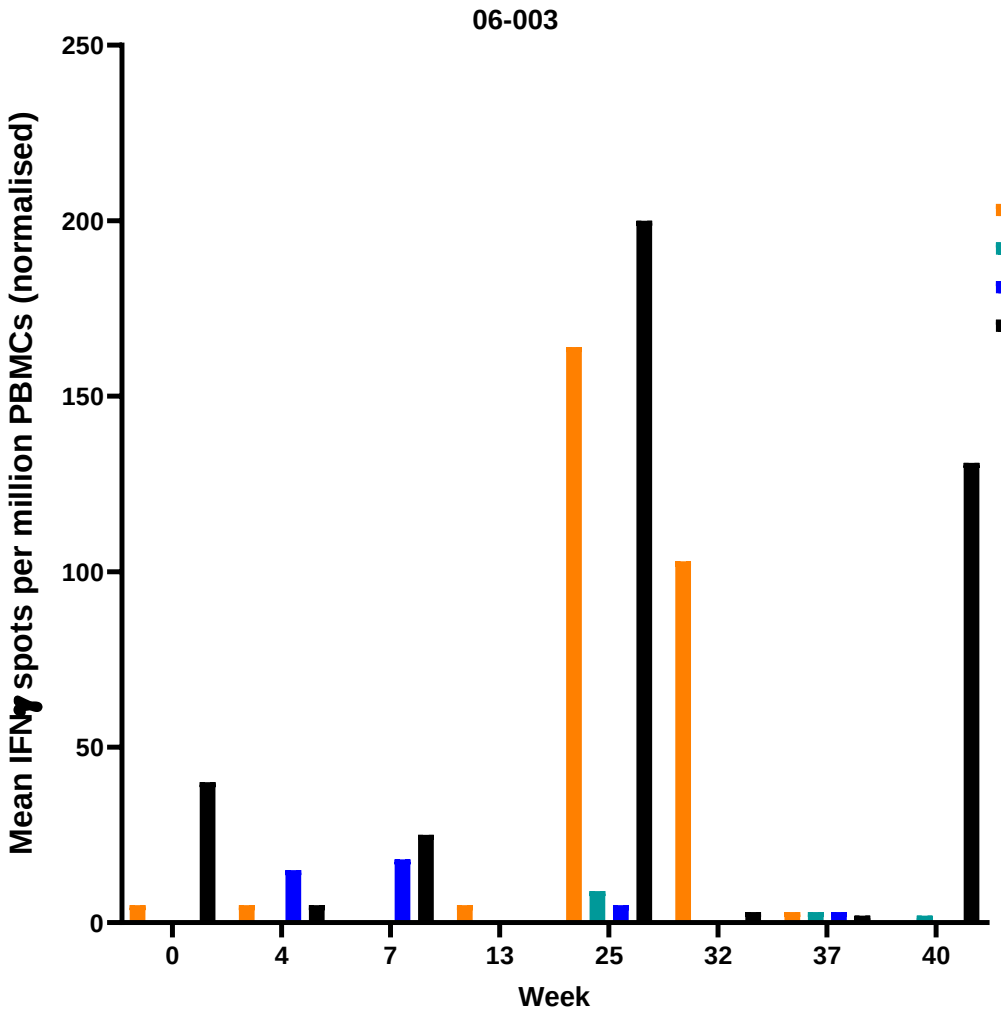




Peptide	Sequence
60511_05*	**MLGTHTMEV**
60511_06	LGTHTMEVT
60511_19	A**MLGTHTMEV**
60511_20	THTMEVTVYH

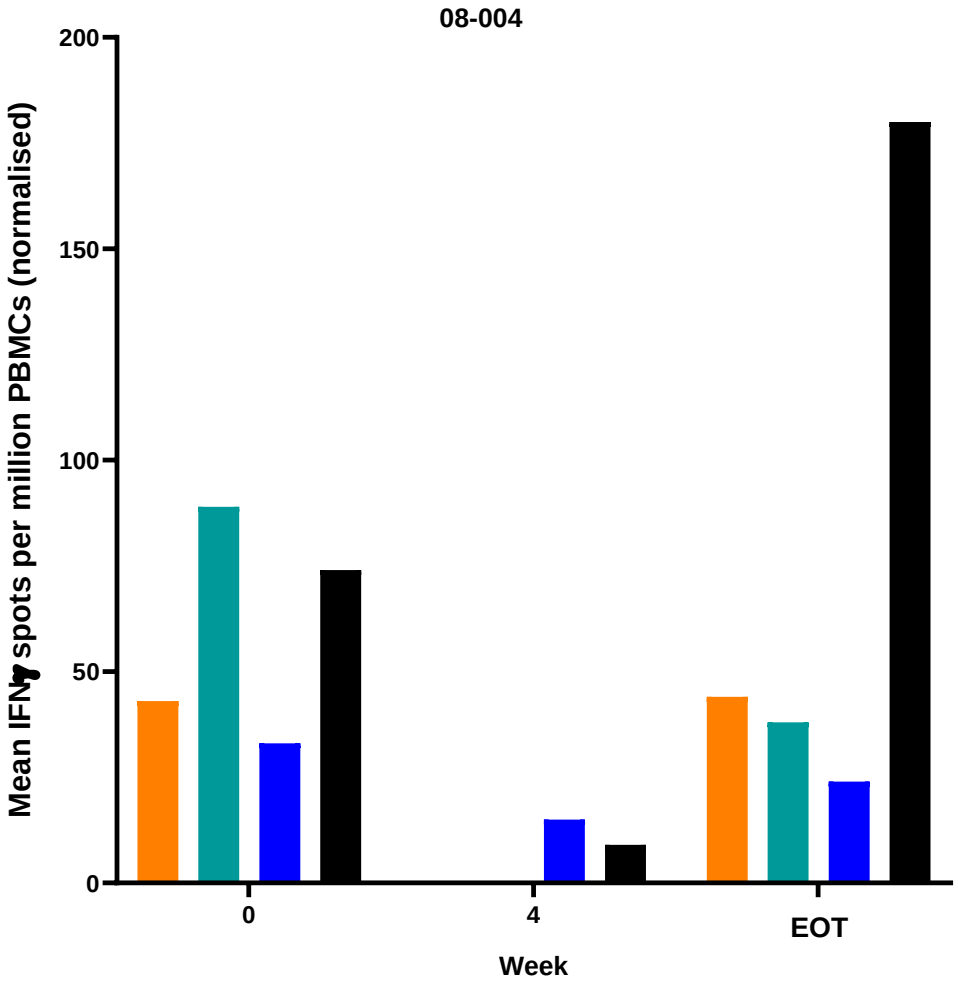
ELISpot responses

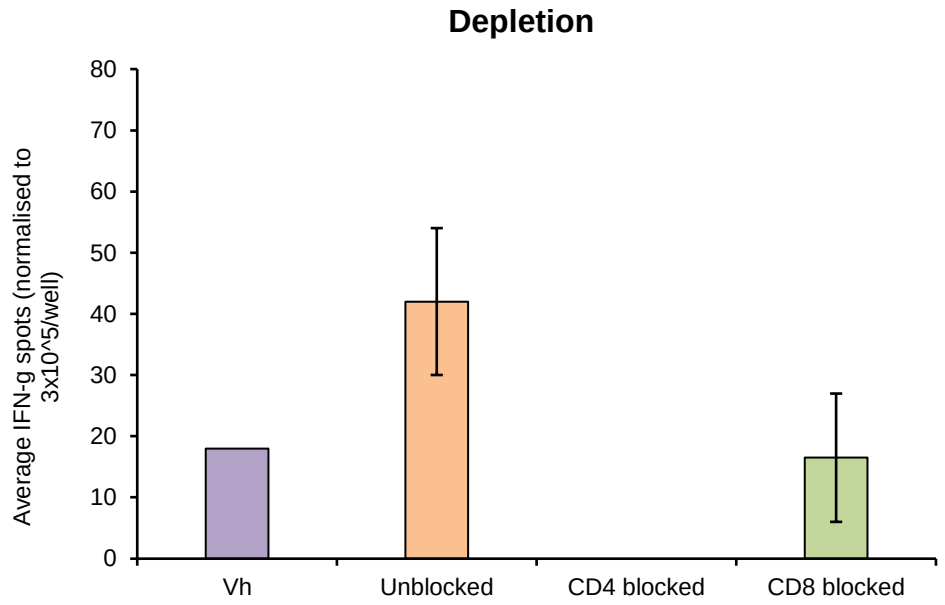
Positive for HLA-A2 and HLA-DR7, DR53



Week	Steroid	Steroid dose (mg)	Frequency
5	Prednisolone	75	QD
5	Prednisolone	65	QD
5	Prednisolone	55	QD
6	Prednisolone	45	QD
6	Prednisolone	40	QD
14	Prednisolone	60	QD
16	Prednisolone	40	QD
16	Prednisolone	20	QD
16	Prednisolone	10	QD
16	Prednisolone	5	QD

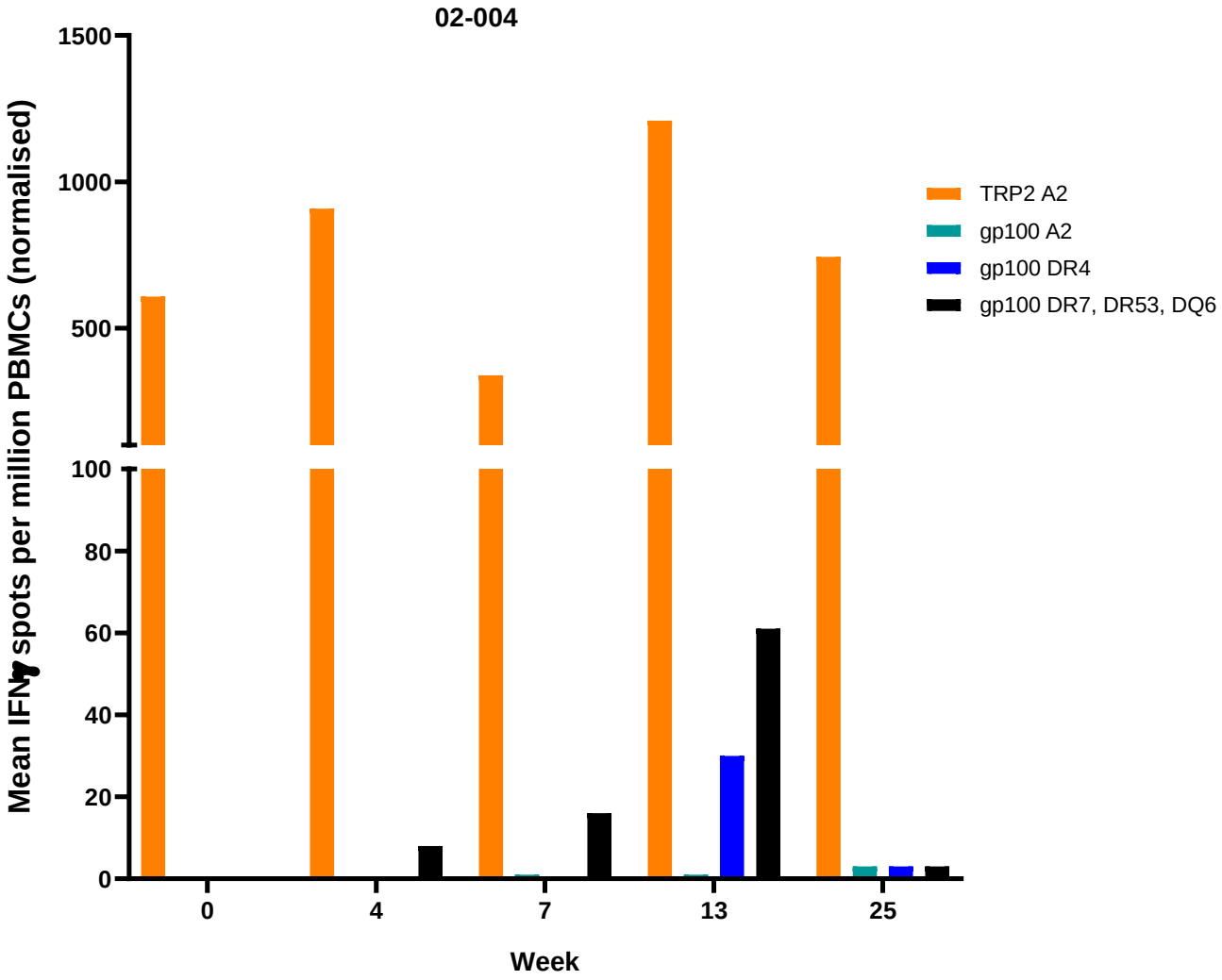
ELISpot responses





ELISpot responses

Positive for HLA-A2 and HLA-DR7, DR53, DQ6



Latest scan results -48% regression

Clinical results from SCOPE study- SCIB1 in combination with Pembrolizumab

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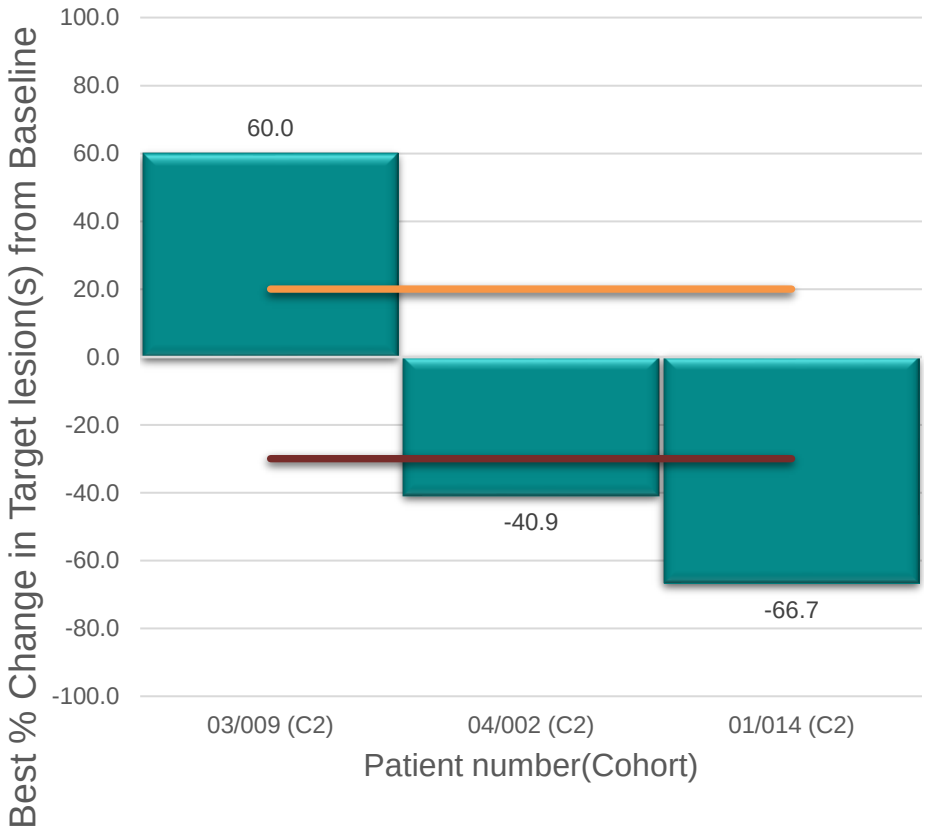
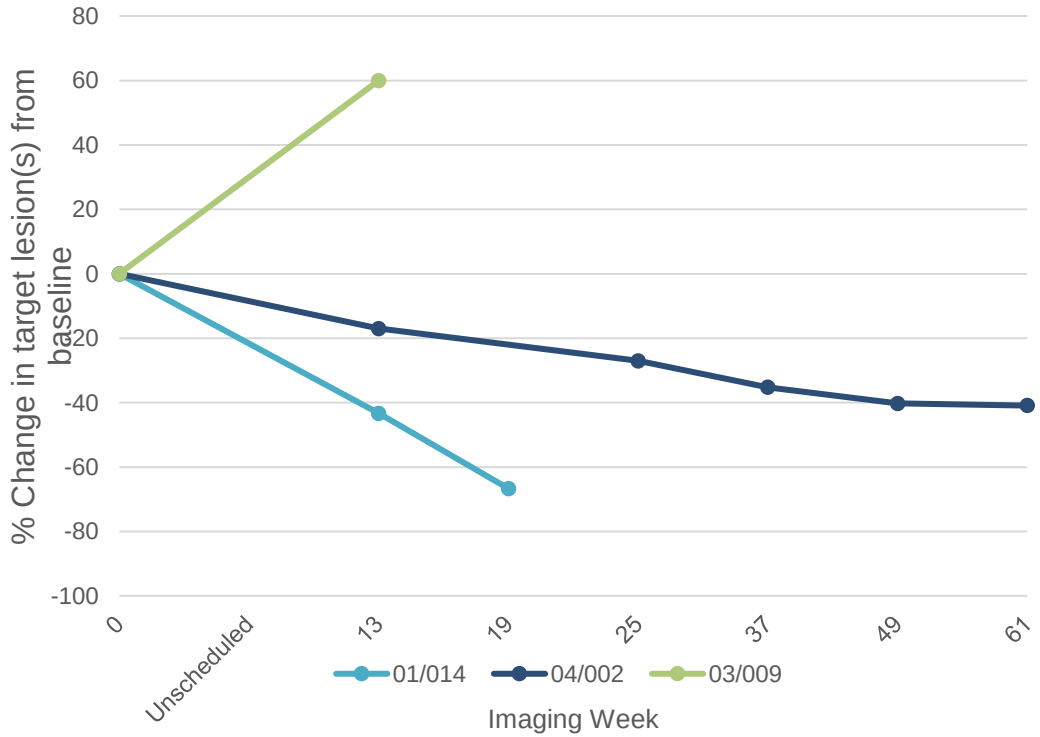
SCOPE Study Waterfall Plot Best Tumour Response (Target Lesions)



SCOPE Time and Duration of response

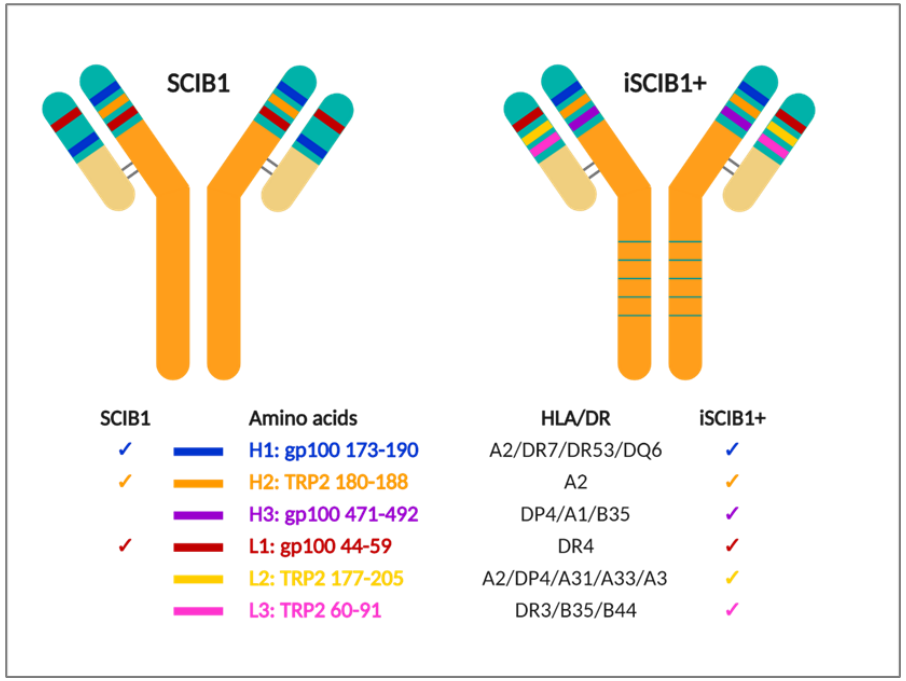


SCIB1 development plan in melanoma

- **SCIB1 is being developed in cutaneous melanoma – compelling efficacy data**
  - Post resection patients: 95% disease-free survival (DFS) at 12 months and 88% at 5 years
  - Unresected patients: 60% stable disease
  - **Unresected patients in combination with double CPIs: 85% ORR**

iSCIB1+ second generation technology is the next best thing :

  - No HLA screening, can access 100% of the addressable market
  - AvidiMab® modification increases potency and gives 15 years extended patent protection
  - Very little risk of iSCIB1+ not working as it the same as SCIB1 but with more epitopes expressed by melanoma
  - A study amendment has been accepted by the MRHA to add a new cohort of iSCIB1+ patients to the SCOPE trial has started



- **SCIB1 and iSCIB1+ are currently in Phase 2 in combination with ipilimumab and nivolumab, delivered with needle free device.**
- **Phase 2/3 adapted registration trial being planned**

Recruiting Sites		Principal Investigator
01	Nottingham City Hospital	Professor Poulam Patel
02	Velindre Cancer Centre, Cardiff	Dr Satish Kumar
03	Mount Vernon Cancer Centre, Northwood	Dr Heather Shaw
04	Churchill Hospital, Oxford	Dr Miranda Payne
05	Royal Preston Hospital	Dr Kellati Prasad
06	Weston Park Hospital, Sheffield	Professor Sarah Danson
07	Musgrove Park Hospital, Taunton	Dr Clare Barlow
08	Derriford Hospital, Plymouth	Dr Martin Highley
09	Royal Free Hospital	Dr Amna Sheri
10	Guy's Hospital	Dr Amanda Fitzpatrick
11	Southampton General Hospital	Prof Ioannis Karydis
	Royal Derby Hospital (PIC)	Dr Kate Shankland

Sites in Set-up

12	St James's University Hospital, Leeds	Dr Maria Marples
13	Royal Marsden Hospital	Dr Kate Young
14	The Christie	Dr Rebecca Lee
15	Addenbrooke's Hospital, Cambridge	Dr Pippa Corrie

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THANK YOU