

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 8-K**

**Current Report  
Pursuant to Section 13 or 15(d) of  
the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): **June 6, 2017**

**ADAPT IMMUNE THERAPEUTICS PLC**

(Exact name of registrant as specified in its charter)

**England and Wales**  
(State or other jurisdiction of  
incorporation)

**1-37368**  
(Commission File Number)

**Not Applicable**  
(IRS Employer Identification No.)

**101 Park Drive, Milton Park  
Abingdon, Oxfordshire OX14 4RY  
United Kingdom**  
(Address of principal executive offices, including zip code)

**(44) 1235 430000**  
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

**Item 8.01 Other Events.**

On June 6, 2017, Adaptimmune Therapeutics plc (the "Company" or "Adaptimmune") hosted a live teleconference and webcast slide presentation from 8:00—9:00 AM EDT (1:00—2:00 PM BST) to discuss updated data from its NY-ESO study in synovial sarcoma. This teleconference follows an oral presentation on June 5, 2017, at the 2017 ASCO annual meeting in Chicago, Illinois, entitled, "Open label, non-randomized, multi-cohort pilot study of genetically engineered NY-ESO-1 specific NY-ESO-1<sup>e259t</sup> in HLA-A2+ patients with synovial sarcoma (NCT01343043)," when Dr. Sandra P. D'Angelo of the Memorial Sloan Kettering Cancer Center presented an update on all cohorts from Adaptimmune's ongoing study of NY-ESO SPEAR T-cells in patients with synovial sarcoma.

The Company's slide presentation materials for the webinar on June 6<sup>th</sup> are attached as Exhibit 99.1 and incorporated by reference herein.

The information contained in Item 8.01 of this Form 8-K, including the attached Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference in any filing made by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by the Company by specific reference in such a filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits. The following exhibit is furnished as part of this Report on Form 8-K:

Exhibit No.	Description of Exhibit
99.1	Adaptimmune presentation materials entitled "NY-ESO SPEAR T-cells in synovial sarcoma, ASCO update", dated June 6, 2017.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

ADAPTIMMUNE THERAPEUTICS PLC

Date: June 6, 2017

By: /s/ Margaret Henry  
Name: Margaret Henry  
Title: Corporate Secretary

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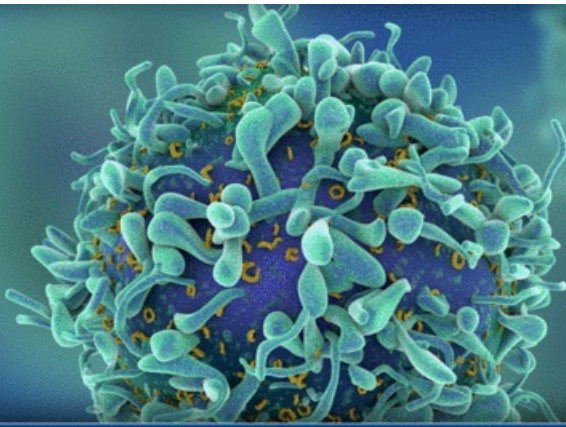
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**Exhibit Index**

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
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# NY-ESO SPEAR T-cells in Synovial Sarcoma

ASCO Update

June 6, 2017



# Disclaimer

This presentation contains “forward-looking statements,” as that term is defined under the Private Securities Litigation Reform Act of 1995 (PSLRA), which statements may be identified by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect” and other words of similar meaning. These forward-looking statements involve certain risks and uncertainties. Such risks and uncertainties could cause our actual results to differ materially from those indicated by such forward-looking statements, and include, without limitation: the success, cost and timing of our product development activities and clinical trials; our ability to submit an IND and successfully advance our technology platform to improve the safety and effectiveness of our existing TCR therapeutic candidates; the rate and degree of market acceptance of T-cell therapy generally and of our TCR therapeutic candidates; government regulation and approval, including, but not limited to, the expected regulatory approval timelines for TCR therapeutic candidates; and our ability to protect our proprietary technology and enforce our intellectual property rights; amongst others. For a further description of the risks and uncertainties that could cause our actual results to differ materially from those expressed in these forward-looking statements, as well as risks relating to our business in general, we refer you to our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on May 10, 2017 and our other SEC filings.

We urge you to consider these factors carefully in evaluating the forward-looking statements herein and you are cautioned not to place undue reliance on such forward-looking statements, which are qualified in their entirety by this cautionary statement. The forward-looking statements contained in this presentation speak only as of the date the statements were made and we do not undertake any obligation to update such forward-looking statements to reflect subsequent events or circumstances. We intend that all forward-looking statements be subject to the safe-harbor provisions of the PSLRA.

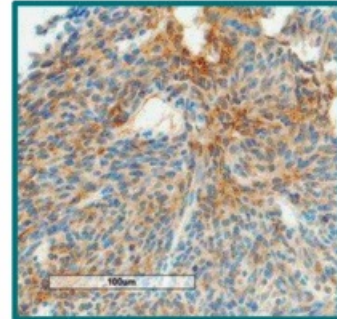


# Synovial Sarcoma

## Overview

- Rare cancer; ~20% of all soft tissue sarcomas <sup>a</sup>
- Peak incidence among people in their 30s
- Tumors primarily in extremities
  - Near joints and tendons
- Treatment includes radiotherapy, chemotherapy, and surgery
  - Many patients undergo “radical” treatments including amputations
- Patients have poor prognoses <sup>b, c</sup>
  - 5-yr overall survival ~52%
  - Unresectable, recurrent, and/or metastatic disease almost universally fatal
- NY-ESO expression observed >70% of cases <sup>d</sup>

### NY-ESO-1 expression by IHC in Synovial Sarcoma



- <sup>a</sup> Herzog CE. J Pediatr Hematol Oncol 2005
- <sup>b</sup> Corey RM, et al. Cancer Med 2014
- <sup>c</sup> Minchom A, et al. Sarcoma 2010
- <sup>d</sup> Lai JP, et al. Oncoimmunol 2012
- <sup>e</sup> Zhao Y, et al. J Immunol 2012

# Key Study Design Elements

## NY-ESO in synovial sarcoma

Design Element	Overview
Objectives	<ul style="list-style-type: none"><li>▪ Primary – response rate by RECIST v1.1</li><li>▪ Secondary – overall survival, safety, duration of response, progression-free survival</li><li>▪ Exploratory – persistence, phenotype, and function of SPEAR T-cells; mechanisms of resistance and sensitivity</li></ul>
Procedures	<ul style="list-style-type: none"><li>▪ HLA and antigen screen, apheresis, manufacture, lymphodepletion, SPEAR T-cell infusion</li><li>▪ Follow-up - disease assessed at weeks 4, 8, 12; then every 3 months until progression)</li><li>▪ Long-term follow-up every 6 months for 5 years, then annually through year 15</li></ul>
Eligibility	<ul style="list-style-type: none"><li>▪ Age <math>\geq 4</math>; ECOG 0-1 or Lansky <math>&gt;60</math> (for children age <math>\leq 10</math>)</li><li>▪ Pathologically confirmed synovial sarcoma</li><li>▪ Measurable disease per RECIST v1.1</li><li>▪ NY-ESO-1 expression by IHC (high: 2+ or 3+ in <math>\geq 50\%</math> cells; low: <math>\geq 1+</math> in <math>\geq 1\%</math> to <math>\leq 50\%</math> cells)</li><li>▪ HLA-A*02:01, HLA-A*02:05, HLA-A*02:06</li></ul>
Cohorts	<ul style="list-style-type: none"><li>▪ Cohort 1: High NY-ESO / Flu 30 mg/m<sup>2</sup>/day x 4 + Cy 1800 mg/m<sup>2</sup>/day x 2</li><li>▪ Cohort 2: Low NY-ESO / NY-ESO / Flu 30 mg/m<sup>2</sup>/day x 4 + Cy 1800 mg/m<sup>2</sup>/day x 2</li><li>▪ Cohort 3: High NY-ESO / Cy 1800 mg/m<sup>2</sup>/day x 2</li><li>▪ Cohort 4: High NY-ESO / Flu 30 mg/m<sup>2</sup>/day x 3 + Cy 600 mg/m<sup>2</sup>/day x 3</li></ul>



# Response Summary

## Responses observed in every cohort

Measure	Cohort 1 (closed) N=12	Cohort 2 (ongoing) N=5	Cohort 3 (closed) N=5	Cohort 4 (ongoing) N=6
Best overall response: N (%)				
CR	1 (8)	0 (0)	0 (0)	0 (0)
PR	5 (42)	2 (40)	1 (20)	3 (50)
SD	6 (50)	1 (20)	4 (80)	3 (50)
PD	0 (0)	1 (20)	0 (0)	0 (0)
Not assessed	0 (0)	1 (20)	0 (0)	0 (0)
ORR: Confirmed, CR+PR: N (%)	6 (50) <sup>a</sup>	2 (40)	1 (20)	3 (50)
Median PFS: weeks (range)	15 (8, 38)	12 (0.3, 14)	12 (8, 38)	NE
Median response duration: weeks (range)	30.9 (13, 72)	7.5 (6, 9)	21 <sup>b</sup>	NE

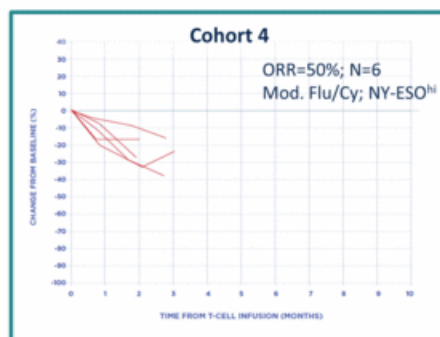
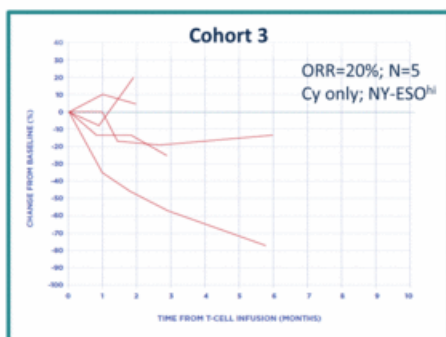
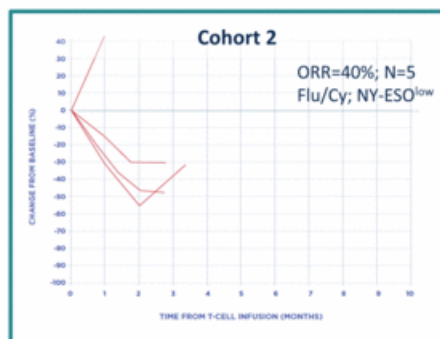
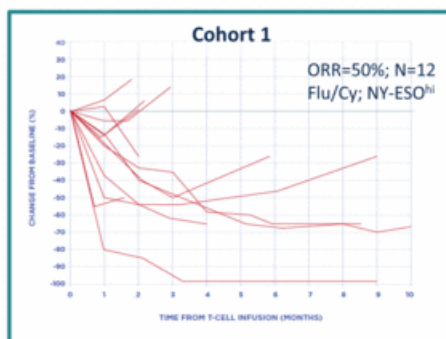
CR=complete response; PR=partial response; SD=stable disease; PD=progressive disease; ORR=objective response rate; PFS=progression-free survival; NE=not evaluable

<sup>a</sup> ORR among 10 patients who received target dose: 6/10 (60%)

<sup>b</sup> One response ongoing at 21 weeks

# Overview - Kinetics of Response

## Percent change from baseline in target lesions

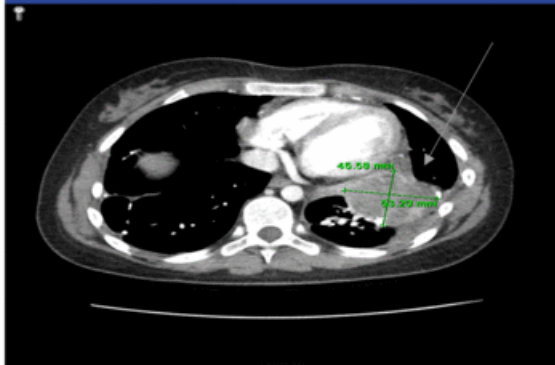




# Case Study

## Patient 309

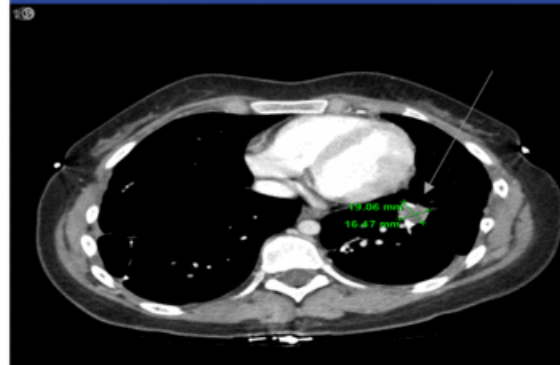
Baseline (lung)



**Baseline:**

- 15-yr-old female with synovial sarcoma of left calf, bilateral lung metastases
- Heavily pre-treated; amputation above knee, thoracotomy
- On-study disease in lungs

Month 6 (lung)



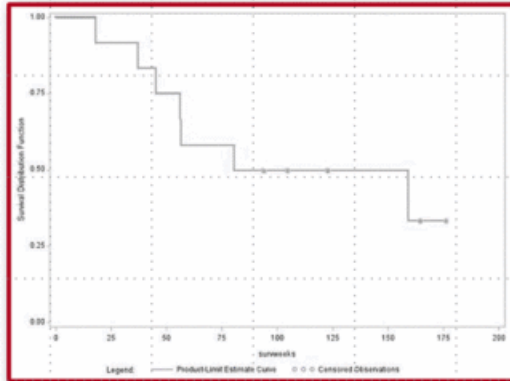
**Post-infusion:**

- $3.02 \times 10^9$  transduced cells
- CRS Day 2-3: Grade 2; resolved
- Partial response – Week 4, confirmed Week 8, Month 6

# Cohort 1

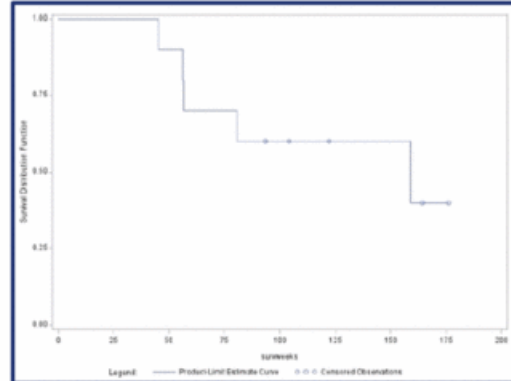
## Survival update – median estimated overall survival

120 wks (~28 mos)<sup>a</sup>



**12 treated patients:  
5 have  $\geq 2$  years survival**

159 wks (~37 mos)<sup>b</sup>



**10 at target dose:  
 $\geq 10^9$  transduced cells**



<sup>a</sup> 95% CI (37, NE); log(-log) median OS  
<sup>b</sup> 95% CI (45, NE); log(-log) median OS

# AEs $\geq$ Grade 3 in >10% of Patients

## NY-ESO SPEAR T-cells continue to be well-tolerated

Adverse Event <sup>a</sup>	Cohort 1 N=12 (%)	Cohort 2 N=5 (%)	Cohort 3 N=5 (%)	Cohort 4 N=6 (%)	Total N=28 (%)
White blood cell count decreased	11 (92)	4 (80)	5 (100)	3 (50)	23 (82)
Lymphocyte count decreased	12 (100)	4 (80)	3 (60)	1 (17)	20 (71)
Neutrophil count decreased	10 (83)	4 (80)	4 (80)	2 (33)	20 (71)
Anemia	10 (83)	2 (40)	3 (60)	2 (33)	17 (61)
Platelet count decreased	8 (67)	2 (40)	4 (80)	2 (33)	16 (57)
Dyspnea	1 (8)	2 (40)	3 (60)	0 (0)	6 (21)
Febrile neutropenia	3 (25)	1 (20)	0 (0)	1 (17)	5 (18)
Cytokine Release Syndrome	2 (17)	1 (20)	1 (20)	0 (0)	4 (14)
Pyrexia	1 (8)	1 (20)	2 (40)	0 (0)	4 (14)
Fatigue	1 (8)	1 (20)	0 (0)	1 (17)	3 (11)
Hypoxia	0 (0)	2 (40)	1 (20)	0 (0)	3 (11)

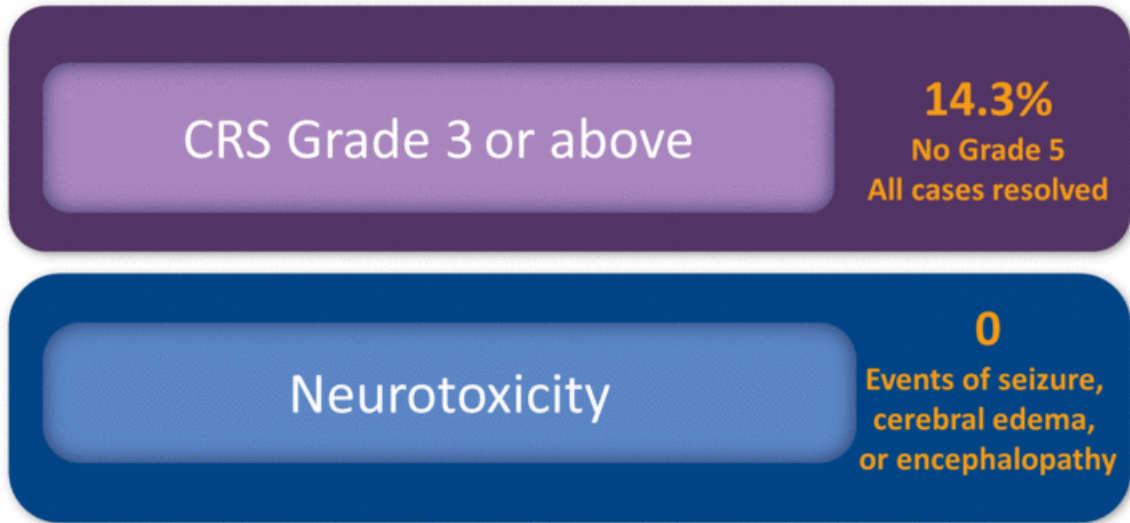
One fatal related SAE due to bone marrow failure (reported ASCO 2016)

<sup>a</sup> Excludes laboratory abnormalities except for hematologic terms



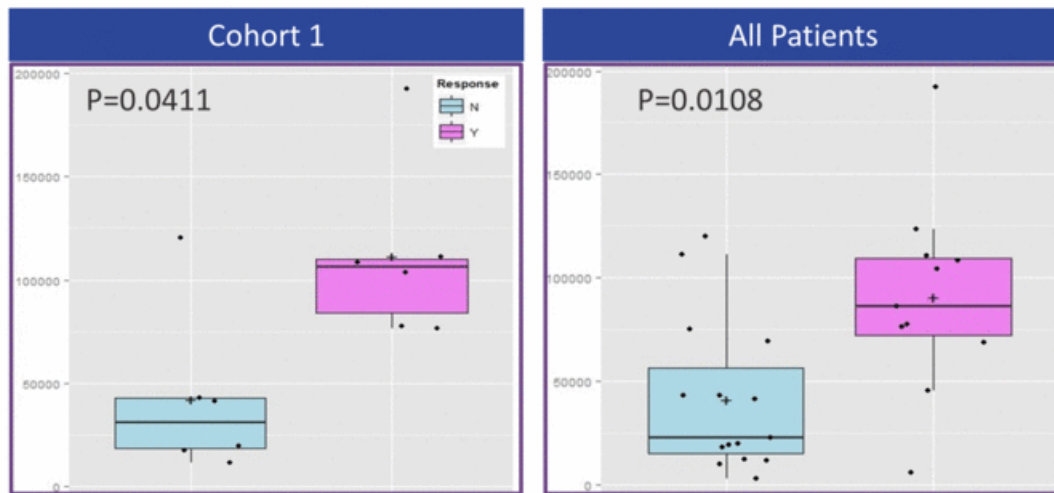
# Adverse Events of Interest

NY-ESO SPEAR T-cells continue to be well-tolerated



# Maximum Expansion of NY-ESO SPEAR T-cells

## Non-responders vs. responders



Wilcoxon Rank Sum Test (Exact)

# Conclusions

## Data update: NY-ESO in synovial sarcoma

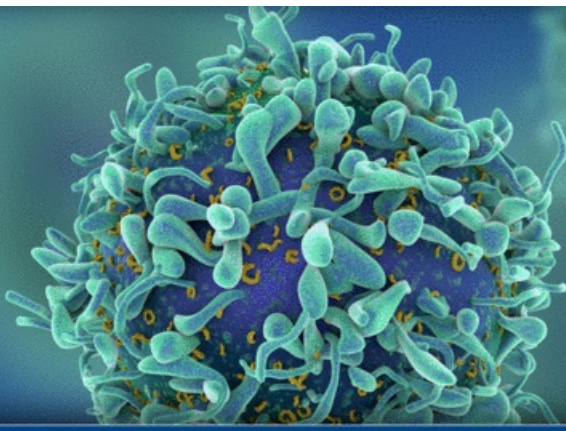
Initial efficacy results encouraging

Cohort 1 survival data is promising

NY-ESO SPEAR T-cells continue to be well-tolerated

Maximal expansion appears to correlate with response





# NY-ESO SPEAR T-cells in Synovial Sarcoma

ASCO Update

June 6, 2017

