

## ADVERSE EVENT 320 ~ (Status=ACCEPTED)(Applicant=[REDACTED]) (AE APPLICATION 15567) Breeding cloned sheep for generating absolute transmitters and phenotype evaluation

Group	Line	Question	Answer
<b>ASSOCIATED Documents</b>			
		[REDACTED]	Histology for 1928 SCC
		[REDACTED]	Pictures of 1928 SCC before and after
		[REDACTED]	Histology 1938
		[REDACTED]	1938 SCC photo
<b>0. ADMINISTRATIVE DETAILS</b>			
0	1	<b>Title</b>	(AE APPLICATION 15567) Breeding cloned sheep for generating absolute transmitters and phenotype evaluation
0	2	<b>Institution</b>	AgResearch Limited
0	3	<b>Business Address</b>	10 Bisley Road
0	4	<b>Phone</b>	[REDACTED]
0	5	<b>Mobile phone</b>	[REDACTED]
0	6	<b>Email</b>	[REDACTED]
0	20	<b>EVENT DETAILS - PLEASE ATTACH VETERINARY AND POST-MORTEM REPORTS TO THIS FORM -</b>	
0	21	<b>Date the event occurred (Enter multiple dates if required)</b>	29th March, 1st, 8th, 14th, 19th, 26th April
0	22	<b>What type of Adverse Event are you reporting</b>	Other
0	23	<b>Please describe in detail the Adverse Event that you are reporting</b>	<p>On the 29th March the animals were brought in for CIDr in (for OPU) and one animal (1928) was found to have an advanced SCC (squamous cell carcinoma) on her lower right eye. The vet was called and she was checked by [REDACTED] (veterinarian) on 1st April. [REDACTED] provided 1928 pain relief as she was irritated by the lesion and felt the only way to remove the tumour entirely was to perform an enucleation. A discussion was had on the potential risks and welfare considerations of this major surgery and after closer inspection under anaesthesia 1928 had her eye removed on the 8th April. The other sheep in the group all had their eyes checked at OPU surgery on the 8th with two more (1930 and 1938) having cyrotherapy (liquid nitrogen) applied to what appeared to be early development of SCC.</p> <p>Histology on the lesion removed by enucleation confirmed SCC with complete excision except one margin was quite narrow (2mm).</p> <p>[REDACTED] came and checked all 3 on 14th and 19th April. 1928 was healing well but 1938 was looking worse with the lesion looking swollen and irritated, she was given a course of anti-inflammatories. [REDACTED] returned on the 26th and after another check decided to remove the lesion under sedation, no eyelid margins were affected. Histology confirmed this was also a SCC and the pathologist couldn't work out if the margins were clear or not- see attached.</p>
0	24	<b>Please describe any actions that you have taken to deal with this Event</b>	All affected animals were under veterinary care soon after the lesion was observed.
0	25	<b>How many animals were impacted by the adverse event? (please use this number in Section 97)</b>	3
0	26	<b>What would the impact of this event have been on the animals affected?</b>	<p>1928- tumour development lead to her eye being obviously irritated and uncomfortable. Pain associated with the surgery and behavioural changes needed to habituate to life with one eye.</p> <p>1938- 2 procedures over the lower eyelid within a couple of weeks of each which likely caused some discomfort- still unknown if she will also need to an enucleation to remove the tumour.</p> <p>1930- 1 minor procedure to remove an early lesion- minor impact.</p>
0	27	<b>What would be impact grade be for this/these animals?</b>	These animals are already a C as undergoing two OPU surgeries. It is safe to say that an impact of developing a tumour, an enucleation as well as OPU is overall higher than OPU alone but at this stage in our opinion it does not increase the grading to a D (due to the veterinary care given).

0	28	<b>Was the Adverse Event directly due to the project or manipulations carried out?</b>	Yes
0	29	<b>NOTE: If YES, any change in Impact grading will need to be accounted for in your STATISTICS report</b>	
0	55	<b>COMPLIANCE</b>	
0	56	<b>Do any external agencies need to be notified of this Event</b>	No
0	60	<b>CONTINGENCY PLAN</b>	
0	62	<b>Could a similar event be prevented in the future</b>	No
0	63	<b>If YES, please describe the contingency plan you have put in place to avoid a reoccurrence</b>	<p>EB: The reason these sheep are developing squamous cell carcinomas before they are 3 years old is unclear. These 5 Poll Dorsets have unpigmented lower eyelids and are very pink around the eyes. Unpigmented skin is highly susceptible to SCC as also seen in Hereford or white faced cattle. However, while Poll Dorsets themselves are known to be quite pink around the eyes it is not known that this particular breed is susceptible to SCC tumour formation.</p> <p>Also in animals that are susceptible, tumour formation is usually much more common in older animals- so this occurring in 2.5 year olds seems unusually young.</p> <p>It is possible the donor animal chosen for this line was particularly susceptible to SCC and/or the fact that these animals are clones could be having an effect (i.e., abnormal cell turnover or aging).</p> <p>Shade availability on the ACF is minimal but these sheep have had access to more shade than the 'standard' sheep on the facility. A focus going forward will be ensuring these sheep have access to the best shade possible especially during the high UV months.</p> <p>Also a plan is being put in place to check these animals eyes every 2 weeks over late spring, summer and early autumn. These tumours can grow rapidly and we want to be able to catch the lesions early to prevent the need for another enucleation. As we had a few tumours develop in a short space of time we will check the eyes of all Poll Dorsets at least 4 weekly even over winter just in case UV light isn't the only instigator here.</p> <p>Ongoing discussions will need to occur if more animals require enucleation, especially around the ethical justification of doing the surgery.</p>
<b>97. SOURCE(s) and TRIAL SITE(s)</b>			
97	1	<b>This section allows statistics to be gathered for MPI and Animal use information</b>	
97	2	<b>SHEEP</b>	Source = AGR Ruakura Containment Facility Trial Site = AGR Ruakura Containment Facility Number = 3
98	1	<b>Status Change</b>	( [REDACTED] 05/05/2022) SUBMIT
98	2	<b>Committee Decision</b>	( 12/05/2022 ACCEPTED [REDACTED] )
<b>99. PERSONNEL and Sign off</b>			
99	1	<b>Committee</b>	RUAKURA
99	1	<b>Programme leader and Facility manager must sign. Other personnel who were involved in the Adverse Event being reported should sign off this form.</b>	
99	99	<b>AEC_AHC [REDACTED] ~ approved ~ Job ( ) Location ( ; )</b>	Veterinarian
99	99	<b>[REDACTED] ~ approved ~ Job (Veterinarian and Animal Welfare Officer) Location (Lincoln Science Centre; )</b>	AWO
99	99	<b>[REDACTED] ~ approved ~ Job (Animal Technician) Location (Ruakura; Animal Phys Yard, First Aid)</b>	Animal Technician

99	99	██████████ ~ approved ~ Job (Research Farm Manager, Ruakura) Location (Ruakura; Manager-Animal Containment Facility, Yard; First Aid)	Farm Manager
99	99	██████████ ~ approved ~ Job (Farm Senior - Farm Technical) Location (Ruakura; Containment Unit; First Aid)	Senior Farm Staff
99	99	██████████ ~ approved ~ Job (Senior Scientist) Location (Ruakura; An Phys. First Aid)	Project manager