



Curtin University Standard Operating Procedure

MONITORING TUMOUR GROWTH IN RODENTS

Number: TEC 05

Version: 1.2

Date: 01/10/2008

Aim/Purpose: To describe the procedures for monitoring tumour growth in rodent oncology studies. If a user wishes to deviate from this SOP in any way this should be outlined in the project proposal submitted to the AEC.

1. Tumours which can be monitored visually (subcutaneous)

- a. Prior to the approximate time when tumour growth becomes evident, animals should be checked daily as outlined in SOP HUS-09. This check may be a quick check to look for any signs of ill health/distress.
- b. If the approximate time is not known the initial group of animals must be very carefully monitored (i.e. inspected by removal from the cage and examination) every other day to obtain this information.
- c. Once tumour growth has been identified, **examine** the animals at least every other day. Some particularly aggressive tumour lines will need daily checks.
- d. The criteria to be used to euthanise animals are:
 - i. Weight loss, lethargy, inappetence or
 - ii. Tumour size interfering with locomotion, eating or drinking, or
 - iii. Tumour ulceration, or
 - iv. Tumour volume greater than 100mm²
- e. Monitoring frequency should be such that an endpoint is recognized prior to suffering and death. Animals should not be found dead.
- f. Exact values for allowed weight loss and tumour diameter should be set out in the protocol and adhered to. A method of euthanasia listed in TEC-03 should be used.

2. Tumours which cannot be monitored visually (Internal)

- a. In such experiments pilot studies should be performed prior to the main experiment to establish rate of tumour growth by euthanasia of animals at fixed time points and post-mortem examination.



- b. Once an animal on study is exhibiting signs which can be attributed to the tumour e.g. lethargy, anorexia, loss of body condition the animals should be **examined** more frequently (daily).
- c. The criteria to be used to euthanase animals are one or more of the following:
 - i. Weight loss (note that in the case of internal tumours bodyweight may increase due to tumour burden though body condition will become poor)
 - ii. Lethargy
 - iii. Dehydration
 - iv. Anorexia
 - v. Piloerection
 - vi. Pain assessment via the Grimace response system
- d. Tumour scoring schemes should be used wherever possible to establish a consistent humane endpoint.

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Reviewed:

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| REVIEWER | Reviewed Annually by Dr Beng Chua | Dr Tara Pike | Dr Tara Pike | | |