**Parameters to be monitored and examples of each** (adapted from [www.ccac.ca](http://www.ccac.ca) [Companion notes](http://www.ccac.ca/Documents/Education/Modules/Vivaria/Endpoints/Companion-notes.pdf))

 Appearance:

* + - Normal
		- Poor grooming
		- Piloerection, fresh ocular and nasal discharge
		- Piloerection, hunched
		- Eyes half closed

Natural Behavior:

* + - Normal
		- Minor change
		- Less mobile and isolated, but alert
		- Restless or very still and not alert

Hydration:

* Water is free flowing
* No piling/crowding around waterer
* Rapid weight loss
* Tacky mucous membranes

 Clinical signs:

* + - Normal respiration
		- Increased respiration
		- Abdominal breathing
		- Decreased respiration
		- Marked abdominal breathing and cyanosis

 Provoked Behavior:

* + - Normal
		- Minor depression or exaggerated response
		- Moderate change in expected behavior
		- Very weak
		- Precomatose

Resources:

1. <http://www.ccac.ca/Documents/Education/Modules/Vivaria/Endpoints/Companion-notes.pdf>
2. Lloyd and Wolfensohn (1998) Humane Endpoints in Animal Experiments for Biomedical Research. In: Humane Endpoints in Animal Experiments for Biomedical Research, Proceedings of the International Conference, 22-25 November 1998, Zeist, The Netherlands. (Hendricksen C.F.M. and Morton D.S. eds). London UK: Royal Society of Medicine Press, pp.48-53.
3. Guidelines for Pain and Distress in Laboratory Animals: Responsibilities, Recognition and Alleviation. From the NIH ARAC: [http://oacu.od.nih.gov/ARAC/documents/Pain\_and\_Distress.pd](http://oacu.od.nih.gov/ARAC/documents/Pain_and_Distress.pdf)





Protocol: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PI: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Date** | **ID** | **Appearance** | **Natural Behavior** | **Hydration** | **Clinical Signs** | **Provoked Behavior** | **Initials** |
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Contact: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_