Mouse & Rat Breeding Policy and Related Non-Compliance 小鼠及大鼠繁殖政策及其相關的違規事宜
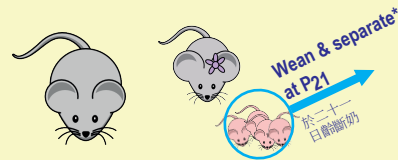
Breeding System (Note 1) 繁殖系統(註一)

Mouse 小鼠

Monogamous (1♂+1♀) Breeding System
一雄一雌繁殖系統 (MBS)：

A male and a female can be housed together with one litter. Offspring should be weaned when they reach 21 days old (P21) if their body size and condition are satisfactory. Only 1 litter is allowed at any time.

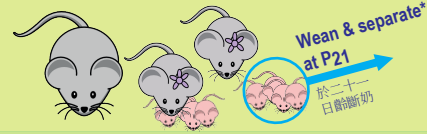一雄、一雌及一窩初生幼鼠可以共同飼養在一籠。幼鼠如體形及健康狀況合適，需於二十一日齡斷奶。任何時間內每籠只可有一窩幼鼠。

Wean & separate* at P21
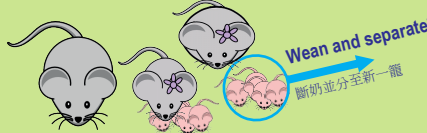於二十一日齡斷奶

Trio Breeding (1♂+2♀) System
一雄兩雌繁殖系統 (TBS)：

A male and up to two females can be housed together with up to two litters.
一雄、兩雌及最多兩窩初生幼鼠可以共同飼養在一籠。

(i) When the elder litter reaches 21 days old (P21) they should be weaned if their body size and condition are satisfactory.
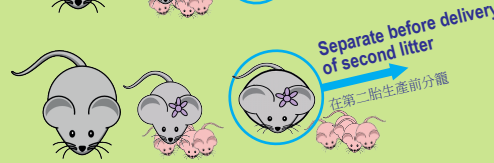幼鼠如體形及健康狀況合適，需於二十一日齡斷奶。

(ii) If a lactating female is seen to be in late pregnancy, either:
如雌鼠在哺育其間再次懷孕，臨盤在即時，應：-
(a) wean and separate her litter into a new cage if the mice are of satisfactory size and condition, or
若其幼鼠的體形及健康狀況合適，需要斷奶並分至新籠；或
(b) pregnant female must be separated from the litter into another cage prior to birth of her second litter.
該懷孕雌鼠必需於生產前移至新籠。

Wean & separate* at P21
斷奶並分至新一籠

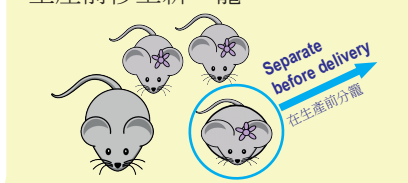Separate before delivery of second litter
在第二胎生產前分籠

Polygamous (1♂+3♀) System
一雄三雌繁殖系統：

Up to 3 females can be housed together with a male for breeding. All pregnant females must be relocated into another cage before delivery of their litters.

最多一雄及三雌可以共同飼養在一籠。所有懷孕雌鼠必需於生產前移至新籠。

Separate before delivery
在生產前分籠

Rat 大鼠

Monogamous (1♂+1♀) Breeding System
一雄一雌繁殖系統 (MBS)：

A male and a female can be housed together with one litter. Offspring should be weaned when they reach 21 days old (P21) if their body size and condition are satisfactory. Only 1 litter is allowed at any time.

一雄、一雌及一窩初生幼鼠可以共同飼養在一籠。幼鼠如體形及健康狀況合適，需於二十一日齡斷奶。任何時間內每籠只可有一窩幼鼠。

Wean & separate* at P21
於二十一日齡斷奶

* Litter should be weaned and separated if they are of satisfactory size and condition 幼鼠如體形及健康狀況合適，方可斷奶。

= Adult male 成年雄性鼠 = Adult female 成年雌性鼠
= Pregnant female 懷孕雌鼠 = One litter 一窩初生幼鼠

Note 1 註一：ETS No. 123 Appendix A states minimum enclosure size for a monogamous pair (outbred/inbred) mice is 330cm²

Species 動物種類	Mouse 小鼠			Rat 大鼠		
Cage Type 籠具種類	M2	1155M	1144B	RB3	1291H	Double Decker
Floor Area 籠底面積	330cm²	330cm²	335cm²	960cm²	800cm²	1054cm² (Bottom) + 808cm² (Upper)

Breeding Related Non-compliance and Follow up Action Required 與繁殖有關的違規問題及所需跟進行動

	Monogamous breeding 一雄一雌繁殖 Mouse or Rat 小鼠或大鼠	Trio-breeding (with 2 litters) 一雄兩雌繁殖(及有兩窩初生幼鼠) Mouse Only 只限於小鼠					Polygamous (1♂+3♀) breeding 一雄三雌繁殖 Mouse Only 只限於小鼠

Non-compliance 違規情況

- **Monogamous breeding 一雄一雌繁殖 Mouse or Rat 小鼠或大鼠:** Birth of 2nd litter and DDOB#1 > 18 days / 當第二窩幼鼠出生及 DDOB#1 > 18 天
- Birth of 2nd litter and DDOB#1 > 18 days / 當第二窩幼鼠出生及 DDOB#1 > 18 天
- Birth of 2nd litter with: DDOB#1 ≤ 3 days and Total no. of offspring > 13 pups / 當第二窩幼鼠出生而 DDOB#1 ≤ 3 天 及幼鼠數量 > 13 隻
- Birth of 2nd litter with DDOB#1 > 3 & ≤18 days and Total no. offspring > 6 pups / 當第二窩幼鼠出生而 DDOB#1 > 3 & ≤18 天 及幼鼠數量 > 6 隻
- 1st litter with satisfactory body size & condition is not weaned at P21 / 當第一窩幼鼠達到二十一日齡(體形大小及健康狀況皆合適斷奶)而仍未斷奶
- Birth of 3rd litter / 當有第三窩幼鼠出生
- Pregnant female(s) is/are not separated before delivery / 未能將懷孕雌鼠於生產前移至新籠

Follow up Action required 跟進行動

- **[A]** Wean the elder litter if they are of satisfactory size and condition. Provide gel diet or moistened feed pellets on bedding; otherwise **[B]** Transfer the younger litter to foster mother.
  - [A]如果較年長的幼鼠體形及健康狀況合適，應將他們移至新籠，並擺放營養啫喱糧或濕糧於籠內墊物上；否則應[B]把初生幼鼠傳給代母餵飼。
- If both litters are from one lactating mother, follow [A] or [B]; otherwise separate the elder litter with their lactating mother to a new cage.
  - 如兩窩小鼠均來自同一母親，請依程序[A]或[B]處理；否則需要將較年長的一窩小鼠連同其母親分至新籠。
- Intensive cage monitoring
- Apply AWM Card#2 to monitor Cage Sanitation and Housing Condition#3
- Inform users by email to separate the litters within 3 days.
  - 需要每天觀察籠內情況
  - 需要插上動物福利監察記錄卡#2，並監察籠子潔淨度及飼養環境#3
  - 以電郵通知研究人員於三天內將兩窩幼鼠分開
- Separate the elder litter(s) within 1 day.
- Provide gel diet or moistened feed pellets on bedding.
  - 於一天內將較年長的幼鼠移至新籠
  - 擺放營養啫喱糧或濕糧於籠內墊物上
- Separate the male with other female(s) (non-lactating or non-pregnant) to a new cage within one day [i.e. leaving the litter(s) and their lactating female(s) in original cage].
  - 於一天內將公鼠及其他非哺乳/非懷孕雌鼠移至新籠，留下幼鼠及其生母於原籠。

How to Avoid non-compliance 如何避免違規情況

If a lactating female is seen to be in late pregnancy 如有雌鼠在哺育其間再次懷孕，臨盤在即時:

- (i) Wean and separate the elder litter if the mice are of satisfactory size and condition, otherwise (ii) separate the pregnant female within 1 day.
- Provide gel diet or moistened feed pellets on bedding

  - (i) 如果較年長的幼鼠體形及健康狀況合適，需要在一天內將他們斷奶並移至新籠；否則 (ii) 需要於一天內將懷孕雌鼠移至新籠。
  - 擺放營養啫喱糧或濕糧於籠內墊物上

Note 註解：

#1: DDOB - Difference in Date of Birth between the 2 litters
兩窩新生幼鼠的出生日期之相隔日數

#2: AWM Card - Animal Welfare Monitoring Card 動物福利監察記錄卡

Card Issue Date 發卡日期		User Notified On 通知用家日期		Follow Up Action Due Date 跟進限期

Violation of Mouse & Rat Breeding Policy in co-housing of 2 litters Note 1. Separation of 1 litter (with mother) is required. 違反兩窩鼠共住一籠的繁殖政策，需要分出其中一窩幼鼠(連母鼠)。 □
Pups (__ days old) have to be weaned. 籠內幼鼠(__ 天日齡)需要斷奶。 □
Overstocking. _____ animals should be relocated to another cage. 飼養密度太高，需將___ 隻動物分到另一籠 □

CULATR No. 動物道德委員會編號	Name of User 研究人員名稱	Cage Location 籠子位置

Animal Welfare Monitoring (AWM) 動物福利監察

	Date 日期
Cage Sanitation 籠子潔淨程度 (☑ acceptable 可接受; ☐ unacceptable 不可接受)	
Housing Condition 飼養環境Note 3 (☑ acceptable 可接受; ☐ unacceptable 不可接受)	
Abnormality 病徵(見27號海報) (Sickness code in Poster#27 Note 3)	
Signature 簽名: PI / User 導師 / 研究人員	
LAU Sub-technical Staff 本中心助理飼養員	
LAU Technical Staff 本中心管理人員	

Follow up action taken on 跟進日期:	Follow up action 處理方法: ☐ Weaned 斷奶 ☐ Separated 分籠 ☐ Culled 剔殺	Follow up by 跟進者姓名及簽名:

Note 1: Please refer to the Breeding Policy Poster 請參照小鼠及大鼠繁殖政策海報; Note 2: Please refer to the Housing Condition remark stated in the Breeding Policy Poster 請參照小鼠及大鼠繁殖政策海報內的飼養環境情況備註; Note 3: Poster#27 = Poster on Minor vs Serious Sickness (輕微及嚴重疾病海報)

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#3: Housing Condition: Sufficient space should be provided for animals to: (i) express their natural postures and postural adjustments without touching the enclosure walls or ceiling; (ii) turn around; (iii) have ready access to food and water; and (iv) comfortably rest away from areas soiled by urine and feces.
#3: 飼養環境：動物需有足夠的空間：(i) 展現自然的姿勢，及能隨意改變姿勢而不踫觸到籠邊和籠頂；(ii) 隨意轉身；(iii) 輕易取得水和糧；及 (iv) 在不沾有排泄物的墊料上舒適地休息。

If you have any questions, please consult our on-site Technician. 如有任何疑難，請向該區技術員尋求協助。