INIAstress Consortium: Models of Stress & Anxiety Employed

Chronic Stress

Chronic EtOH Exposure/Withdrawal
Developmental/Social Stress

Measures of Stress & Anxiety

Behavioral
Endocrine
Neurosteroid

Acute Stress Challenges
Endocrine Challenges
Ethanol Challenge
Chronic Stress Conditions

Developmental/Social Stress

• Social Hierarchy/Defeat [Monkeys] (K Grant); [Mice] (M Miles)
• Social Isolation [Mice] (B McCool)

Chronic EtOH Exposure/Withdrawal

• Self-Administration [Mice] (M Miles)
  [Monkeys] (K Grant)
• Inhalation [Mice] (H Becker; S Jones; B McCool; D Lovinger)
Update on Models of Stress & Anxiety:
INIAnxiety Consortium

**Acute Stress Challenges**

**Social/Environmental Stressors**
- Footshock [Mice] *(H Becker)*

**Endocrine Challenges**
- CRH/ACTH/Dex [Monkeys] *(K Grant)*
  [Mice] *(M Miles)*

**Ethanol Challenges**
- Self-Administration [Monkeys] *(K Grant)*
- Injection [Mice] *(M Miles)*
Stress & Anxiety Models

Behavioral Measures

- Ethanol Self-Administration  [Monkeys]  (K Grant)  
  [Mice]  (H Becker; M Miles; S Jones)
- Reinstatement of EtOH Seeking  [Mice]  (H Becker)
- Anxiety (L/D Box; 0/+ Maze; Open Field)  [Mice]  (M Miles; B McCool; H Becker)
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**Stress & Anxiety Models**

**Endocrine Measures**

- **Plasma ACTH/CORT**
  - after CRH/ACTH/Dex Challenge
    - [Monkeys] *(K Grant)*; [Mice] *(M Miles)*
  - after Pharm (naloxone) Challenge
    - [Monkeys] *(K Grant)*
  - after Ethanol Challenge
    - [Monkeys] *(K Grant)*; [Mice] *(M Miles)*

- **Plasma CORT**
  - after chronic EtOH [Mice] *(H Becker; S Jones; D Lovinger)*

- **Brain CRF (mRNA & protein)**
  - after chronic EtOH & footshock stress [Mice] *(H Becker)*
Update on Models of Stress & Anxiety:
INIAsstress Consortium

Stress & Anxiety Models

Neurosteroid Measures

- Plasma Neurosteroids
  - after CRH/ACTH/Dex Challenge
    [Monkeys] (K Grant)
  - after Pharm (naloxone) Challenge
    [Monkeys] (K Grant)
  - after Ethanol Challenge
    [Monkeys] (K Grant)

- Brain Neurosteroids
  - after chronic EtOH [Mice] (H Becker)
  - after footshock stress [Mice] (H Becker)
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Humans
Monkeys
Mice