

9. Locomotion - Blood and Respiratory Media

Marguerite Butler

2023-10-30

Pre-class materials

i Read ahead

Before class, you can prepare by reading the following materials:

1. We did get a bit behind, so Monday and Wednesday we will finish [[locomotion](#)]
2. Wednesday and Friday we will move on to blood and respiratory media
3. Lab this week is on [[toad muscle](#)]. Pay attention to refining your prelab.
4. Think hard about a **hypothesis for your independent toad muscle** lab next week.

Announcements/Reminders

- Due Monday Homework 5 [[schedule](#)]
- Halloween Extra Credit - come dressed up, stop by lab on Tuesday (or Monday)
- Do discussion TEAMMATES eval, released each Friday, due by Monday.
- Getting to the end, folks!

Week 11 Discussion Groups

| Group | Partner 1 | Partner 2 | Partner 3 |
|-------|-----------|-----------|-----------|
| 1 | Justin | Kirsten | Mayuka |
| 2 | Logan M | Richard | Christina |
| 3 | Matthew | Morgan | Adry |
| 4 | Sasha | Logan B | Alvin |
| 5 | Anna | Krystal | Garrett |

| Group | Partner 1 | Partner 2 | Partner 3 |
|-------|-----------|-----------|-----------|
| 6 | Maisie | Kylie | |

Monday and Wednesday

- Finish Biomechanics and Locomotion [[discussion](#)] [[slide deck 1](#)]
 - Support vs. Locomotion
 - Material properties and functional design
 - * stress and strain
 - * posture
 - Muscle architecture
 - Lever arms and gear ratios
- Terrestrial Locomotion [[discussion](#)] [[slide deck 2](#)]
 - Cursorial adaptations
 - Trends in posture
 - Limb cycles and gaits (kinematics)
 - Ground reaction forces and joint forces (biomechanics)
 - Conservation of energy in running, walking jumping

<https://youtu.be/YlyaASmy-1E>

Friday

<https://youtu.be/t0Vf-RJleCE>

- Blood and Respiratory Media [[discussion](#)] [[slide deck](#)] [[slide deck2](#)]

For Next Time

- Homework 6 Respiration Friday 11/10 [[schedule](#)]

i Reminders and materials