

Group Activity

A rapid-response proposal for genomics research in a wildlife disease scenario.



GDW 2017: Horizon Scan



American
Genetic
Association

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Perspective
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Perspective

The Expectations and Challenges of Wildlife Disease Research in the Era of Genomics: Forecasting with a Horizon Scan-like Exercise

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GDW 2018: Best Practices



Retroviral resistance in a re-discovered tarsier species



Vector-borne bacterial outbreak in indigo snakes

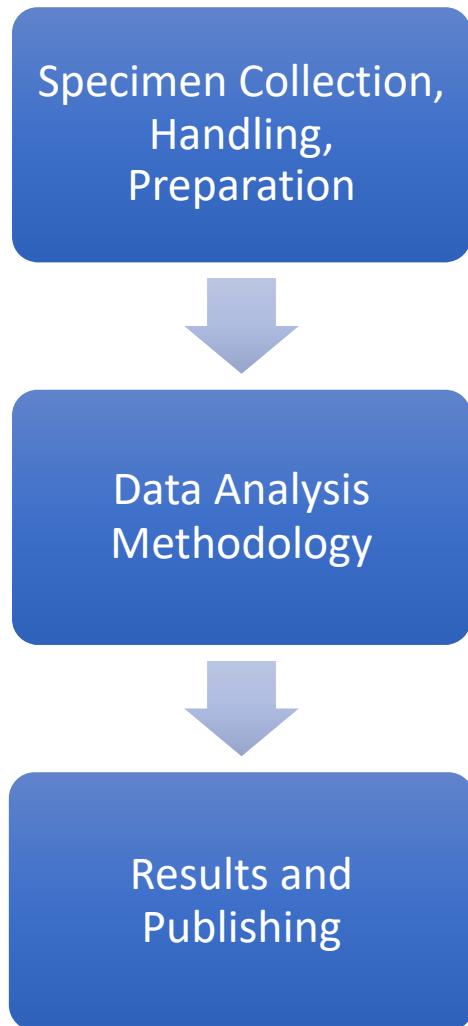


Permafrost pathogen outbreak!



Viral biocontrol of an invasive rat species

GDW 2018: Best Practices



GDW 2019: Project Roulette



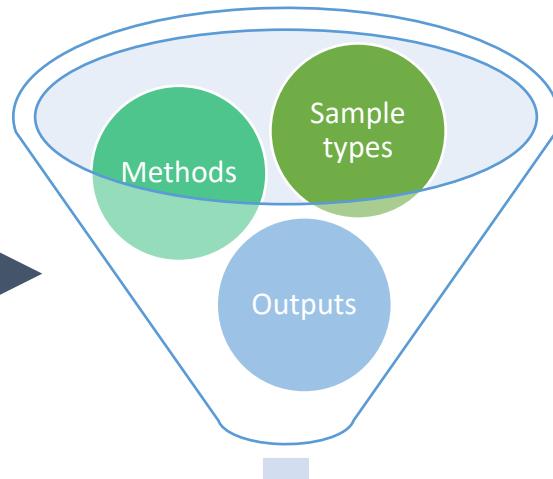
Pathogen resistance in a re-discovered tarsier species



Vector-borne disease outbreak in indigo snakes



Permafrost pathogen outbreak!



Project Design

GDW 2019: Project Roulette

Samples

fresh tissue

non-invasive

Technology

MiSeq

NovoSeq

Oxford Nanopore
(Gridion/Minion)

Output

\$\$\$ for data and
open access
publication costs

no \$\$\$

Etiological Agent

bacterium

virus

fungus

it's a PRION!

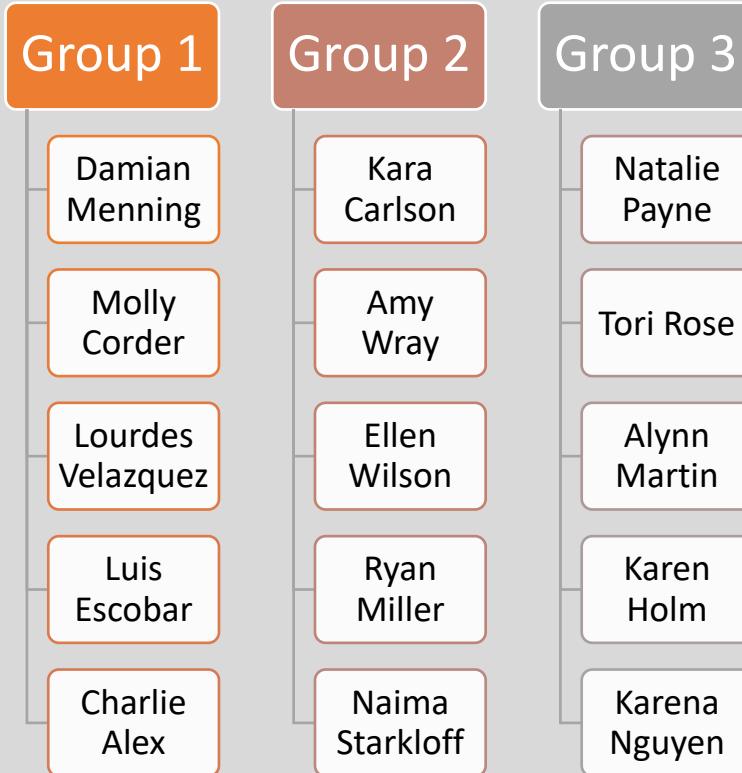


GDW 2021: Rapid Response Proposals

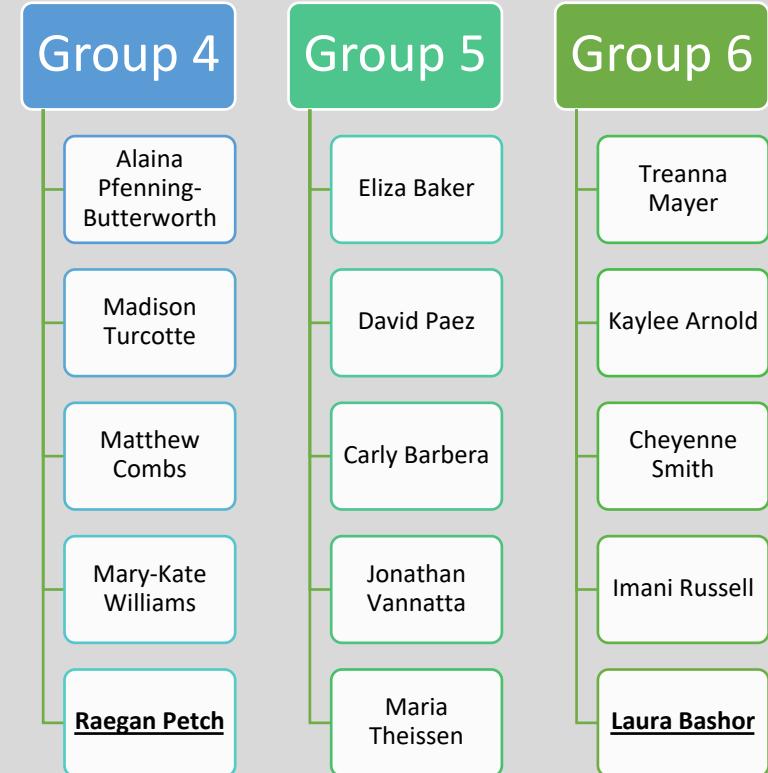
- There are two wildlife disease outbreak scenarios
 - Scenario 1: Indigo snake vector-borne disease
 - Scenario 2: Permafrost disease outbreak
- 3 groups of 4-5 people for each scenario
 - Each group will propose a genomics study to identify/control/mitigate the outbreak.
 - There are designated work times, or arrange with your group.
- Each group will present their proposal on the last day
- **But be prepared for twists along the way!**

Randomly Assigned Groups

Scenario 1: Bob Fitak



Scenario 2: Erick Gagne



Final Presentations: Saturday

- 10 min presentations with 5 min Q&A
- What are your questions/hypotheses?
- Study design
 - Sample types
 - Sequencing (how much/what kind?)
 - Types of analyses
- Research dissemination
 - Where will you publish?
 - How will you make your data and analyses available?

Proposal Review Panel: Saturday

- Everyone NOT in the three competing groups:
 - Each ‘Panelist’ will have \$\$\$ to anonymously distribute as they see fit to the three groups
 - Google (or Slack) survey form
- For each Scenario, winners with the most \$\$\$ get [Swag is TBD...]

