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Cyanotoxins in Air Study: Assessing Health Effects (CAST)

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PROJECT SUMMARY

Purpose – To assess the potential health impacts of aerosolized toxins from blue-green algal blooms.

Goals – Recruit and conduct sampling on 150 participants and collect biological specimens (blood, urine, nasal swabs, respiratory function screening) and environmental samples (personal air samplers, water, bulk air samplers) on 5 sampling days during an active algal bloom.

MAJOR TAKEAWAYS

Recruitment and sampling activities have been delayed due to lack of significant blooms.

Delays due to COVID-19.

Currently exploring alternative study designs

ADDITIONAL RELEVANT INFO

No results to report

RESEARCH PRIORITIES

- Identify all toxins, risks, and levels of toxicity, including microcystin, BMAA
- Develop more clear diagnostic criteria for health care providers
- Need clinically approved matrix-specific assays for cyantoxins in biological samples

NEW DATA GAPS

- Long term biomarkers for exposure
- Background levels of toxins during non bloom periods

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