



## Nucleic Acid Extraction from Low Biomass Environmental Samples

Optimal methods for the extraction of DNA and RNA from low biomass and extreme environments for downstream applications.



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Our laboratories have the capabilities to simulate a range of extraterrestrial environments. The unique set of facilities are supported by an experienced and highly qualified technical team.

We are seeking to collaborate with commercial and development partners through contract research, consultancy or Knowledge Transfer Partnerships.

The low biomass laboratory contains three primary pieces of equipment: a PCR workstation for low biomass nucleic acid extraction, a fume hood for extractions using hazardous chemicals, and a bead beater for removing nucleic acid from environmental samples or from hard-to-digest microorganisms. The low biomass laboratory is restricted to only those working with low biomass samples.

## **Key features:**

- High throughput sequencing
- Experience of low level and difficult samples
- Refrigerated centrifuge
- Chemicals and reagents
- NanoDropTM One
- QubitTM 3

## **Benefits:**

- Optimised method development to suit your requirements
- Researchers with a wealth of experience and expertise
- A technical team to support your experiments.

## **Applications:**

- Astrobiology
- Early life on Earth
- Life in extreme environments
- Pharmaceuticals
- Agrifood
- Bioremediation
- Oil and Mining
- Climate change studies

AstrobiologyOU is a multidisciplinary research group that is working collaboratively to address the scientific, governance and ethical challenges associated with the advancement of astrobiology and related space exploration missions; whilst ensuring societal benefits and sustainability.

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