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# Research on moon dust lands national award for undergraduate

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Michelle Thompson accepts her award for the best research poster in the physical and earth sciences division at the Rising Stars of Research conference.

Michelle Thompson's research is going to help protect the health of NASA astronauts and she recently received a national undergraduate research award for her work.

The fourth-year Queen's student garnered the top prize in the physical and earth sciences research poster competition during the Rising Stars of Research conference at the University of British Columbia.

Ms Thompson's poster summarizes her study of the composition of moon dust, which she completed during a National Aeronautics and Space Administration (NASA) internship at the Johnson Space Center last summer.

"I was shocked to receive the award because the physical and earth sciences division included so many great students conducting interesting research. However, winning the competition confirms that my research was important," she says.

Ms Thompson examined lunar soil that was collected during the Apollo 11 mission. She found that the dust is composed of glass and a high concentration of reduced iron.

The research is vital because NASA plans to return to the moon and build a sustainable, long-term human presence. The iron in moon dust poses a health risk to humans if they breathe it in and it enters their bloodstream. NASA will have to design equipment and machinery that can withstand the build-up of dust in the mechanics of the instrument.

Ms Thompson enjoyed the opportunity to share her research with other undergraduate student researchers.

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“As undergraduate students we do not have a lot of opportunities to showcase our research. Undergraduate students are doing great things working alongside graduate students and professors in the laboratory,” she says.

[The Rising Stars of Research](#) gives students a chance to meet other likeminded students, practice communicating their research in public, and get advice on scholarships and post-graduate studies.

Ms Thompson is in her final year at Queen’s working on a double degree in geological engineering and biology. She plans to enter a post-graduate program in planetary science next year.

She spent this summer working on a joint project with Queen’s geology professor Ron Peterson and the Royal Ontario Museum’s Kim Tait, which she also participated in two summers ago. The research looked at the characterization of foreign fragments in a meteorite that was collected in northwest Africa and donated to the museum.

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