

# Lumenera Supports Next Generation of Young Innovators

## Young Scientist Delivers Clear Results with Lumenera INFINITY Camera

Lumenera is pleased to offer its support to Canada's next generation of life science researchers by providing high-end digital scientific imaging solutions to 13 year old multiple gold medal winner (see below) Mikaela Preston. Mikaela's award winning project involved research into enhancing Biofuel production through the mixture of multiple algae strains, and she contacted Lumenera to help with her ambitious project.

Lumenera was happy to provide an INFINITY2-2 microscopy camera for Mikaela's cause. The INFINITY2-2 produced crystal clear, vibrant images for her algae research. She was easily able to set up the camera and capture images of her samples with Lumenera's INFINITY CAPTURE and ANALYZE software packages. The INFINITY2-2 camera offered Mikaela high end color reproduction combined with excellent sensitivity, ensuring the best results possible.

## Algae Into Biofuel: A Study of Interaction Between Two Species

Algae is emerging as a promising area of research for energy-efficient producers of biofuels, medicinal products and food. Mikeala has been investigating multi-species algal systems, as opposed to isolating a strain and growing it. This research can lead to a more robust strain of cells with the ability to recover when challenged with temporary light restrictions or plunges in temperature. These types of challenges which include cloudiness and unusual weather patterns may occur in real life situations during the industrial growth of algae. It is important to look into these multi-species systems to investigate the possibility that they could present enhanced

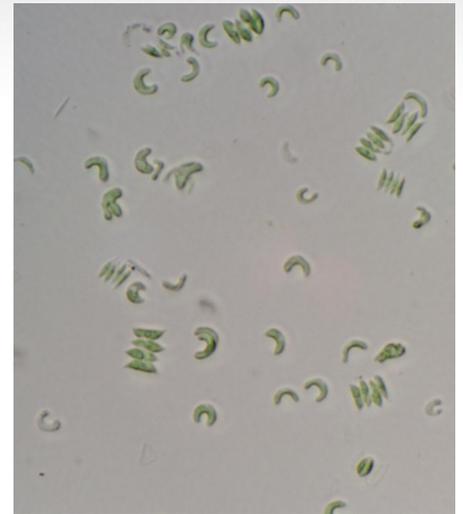


Image of algae taken with Lumenera's INFINITY2-2

### Highlights

Mikaela's numerous awards include:

**The University of Western Ontario  
Scholarship**  
Gold Medalist

**Biotechnology & Pharmaceutical  
Sciences Junior**  
Gold Medal

**Best Junior Project**  
EnCana Platinum Award



results. To test this hypothesis Mikaela's research will examine and test two algae strains by growing them independently and combined.

The focus of the research is concerned with predictive modeling of multi-species algal bio-reactors, with the intent of understanding how commercial systems might be made more robust under variable environmental conditions. The project will involve a great number of cell counts. The hope is that automated cell count software can be used to reduce the manual effort required.

Lumenera was happy to help Mikeala in her project and to provide an imaging and software package to make cell counting as easy as possible.



Lumenera's INFINITY2-2

#### About Lumenera

Lumenera Corporation, a division of Roper Technologies, headquartered in Ottawa, Canada, is a leading developer and manufacturer of high performance digital cameras and custom imaging solutions. Lumenera cameras are used worldwide in a diverse range of industrial, scientific and security applications.

Lumenera solutions provide unique combinations of speed, resolution and sensitivity in order to satisfy the most demanding digital imaging requirements. Lumenera customers achieve the benefit of superior price to performance ratios and faster time to market with the company's commitment to high quality, cost effective product solutions.

For further information about Lumenera, please visit [www.lumenera.com](http://www.lumenera.com) or call 613-736-4077.

