

## Qing-Bin Lu's Laboratory

<http://www.science.uwaterloo.ca/~qblu/>

### Location

Physics 136 & 137

### Management

Director:

- Qing-Bin Lu ([qblu@uwaterloo.ca](mailto:qblu@uwaterloo.ca); x33503)

Tour Operator:

- Dr. Lu or graduate students will usually give the lab tour when there are visitors

### Users

- Post-doctoral
- Graduate students (biophysics, biochemistry, nanotechnology)

### Research

- Environmental chemistry and physics (Science of Ozone Depletion and Global Climate Change)
- Femtobiology, Femtomedicine and Cancer Research

### Selected Projects

Qing-Bin Lu (PI)	Canada Foundation of Innovation (CFI), and Ontario Innovation Trust (OIT). Buildup of a femtosecond time-resolved laser spectroscopy laboratory for environmental and biological studies	\$431,250	2004-2009
Qing-Bin Lu (PI)	Natural Sciences and Engineering Research Council of Canada (NSERC), Building a nano-meter scale surface science analysis system for environmental studies	\$149,986	2004-2009
Qing-Bin Lu (PI)	Natural Sciences and Engineering Research Council of Canada (NSERC), Application of time-resolved femtosecond laser spectroscopic techniques to biological, environmental and medical studies,	\$113,620	07/01/2006-06/30/2011
Qing-Bin Lu (PI)	Canadian Institutes of Health Research (CIHR): Studies of Reaction Dynamics of Anticancer Drugs using Time-Resolved Ultrafast Laser Spectroscopy	\$245,508	10/01/2006-09/30/2009

Qing-Bin Lu (PI)	Ontario Ministry of Research and Innovation, Early Researcher Award: Application of Ultrafast Biophotonics Technology for Cancer Research	\$150,000	2007-2012
Qing-Bin Lu (PI)	Canadian Institutes of Health Research (CIHR) New Investigator Award: Studies of Reaction Dynamics of Anticancer Drugs using Time-Resolved Ultrafast Laser Spectroscopy	\$300,000	2008-2013
Qing-Bin Lu (PI)	Canadian Institutes of Health Research (CIHR): Molecular-Mechanism-Based Target Identification and Drug Discovery for Radiotherapy of Cancer	\$662,865	2010-2015
Qing-Bin Lu (PI)	Natural Sciences and Engineering Research Council of Canada (NSERC), Ultrafast electron transfer reactions in biological and environmental systems	\$225,000	2011-2016

## Equipment

- Femtosecond lasers & an amplifier system
- Femtosecond Time-resolved transient absorption laser spectroscopy
- Femtosecond Time-resolved transient fluorescence laser spectroscopy
- An UHV surface science analysis system
- Cell culture facility
- Molecular biology and cell biology measurement facility

## Supporting Partners

- Ontario's Ministry of Research and Innovation (Early Researcher Award)
- Canadian Institute of Health Research (CIHR)
- NSERC
- CFI
- Ontario Innovation Trust (OIT)
- UW

## Access Rights

- Opened to university/faculty
  - Accessible for collaborators only
- Open to industry
  - Accessible for collaborators only
- Process:
  - Contact the lab director 2 months in advance about project
- Training
  - N/A