

## Research & Services | Developing Small Molecules for the Detection and Treatment of Cancer (Yissum)

**code:** 6-2010-2431

Galia Blum, HUJI, School of Pharmacy

Rapid in-house development and validation of new reagents

### Categories

Cancer, Small Molecules

[Dr. Galia Blum's Laboratory](#), The Institute of Drug Research, The School of Pharmacy, Faculty of Medicine

### Research Capabilities

Galia Blum's lab develops novel small molecules that target various cancers and allow simultaneous tumour detection and therapeutic capabilities in mice. The lab's aim is to generate compounds that when injected to the body will reach cancerous tissue, bind to it and fluoresce, allowing for non-invasive detection. Shining visible light at the fluorescing tumours will cause these reagents to abolish the diseased tissue.

### Advantages

The Blum lab has expertise in organic chemistry, biochemistry, microscopy, and animal handling, as well as non-invasive optical imaging. The diversity of the lab promotes rapid in-house development and validation of new reagents, from chemical design to in-vivo evaluation.

### Research Background

Our interest is to generate tools that will enable the study of cysteine protease activity in various diseases in addition to utilizing elevated cysteine protease activity to detect and treat various diseases such as cancer.

### Researcher and Research Interests

[Dr. Galia Blum](#). Researcher in the institute of Drug Research, is an author of several peer-reviewed papers, as well as five patents. She earned her B.Sc. and Ph.D. from the Hebrew University and completed her post-doctoral fellowship at the School of Medicine, Stanford University.

### Available Resources

The lab uses standard chemical equipment and is equipped with a liquid chromatography mass spectrometer (LCMS). The lab has all the standard instruments for biochemical research including a tissue culture room. In addition, the lab has access to an IVIS Kinetics non-invasive optical system, as well as to a confocal microscope.

### Laboratory Contact

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