



**Ilse-Katz Institute of Nanoscale Science & Technology**

**Crystallization service**

**Equipment and software:**

**Formulator (Formulatrix)** - A liquid handler that dispenses crystallization solutions for 24- as well as for 96-well grids rapidly and with high accuracy.

- Low volumes, down to 200 nL.
- Dispense a 100  $\mu$ L, 3-ingredient, 96-well crystallization grid in 2.7 mins.
- Supports all microplate types.

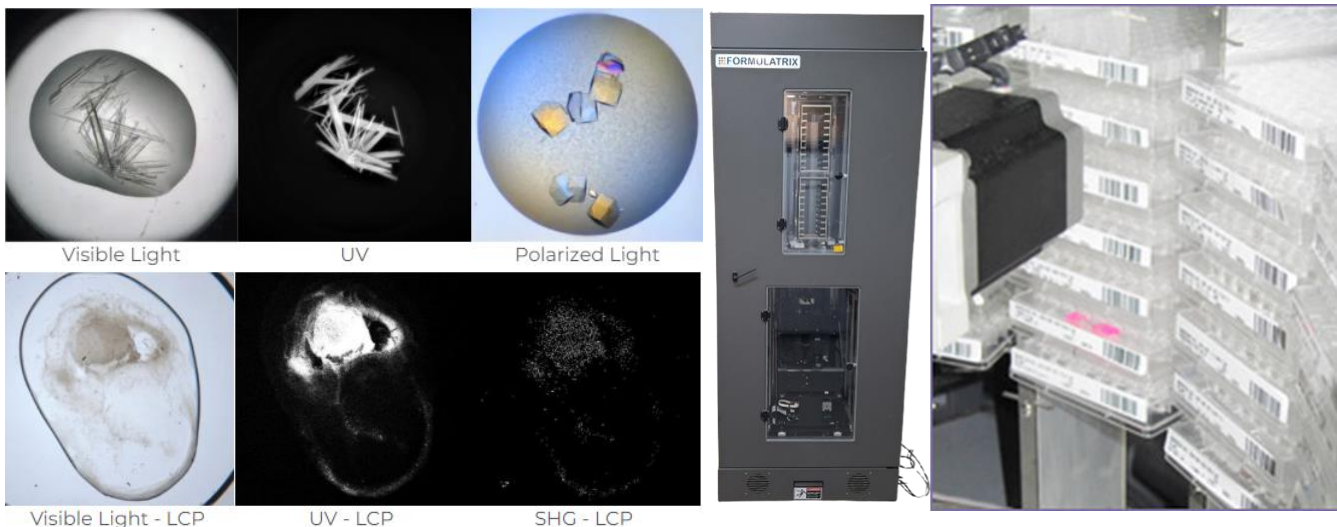


**NT8 Drop Setter (Formulatrix)** - A fast and precise automated nanoliter dispenser for setting up crystallization experiments including sitting drops, hanging drops and seeding.

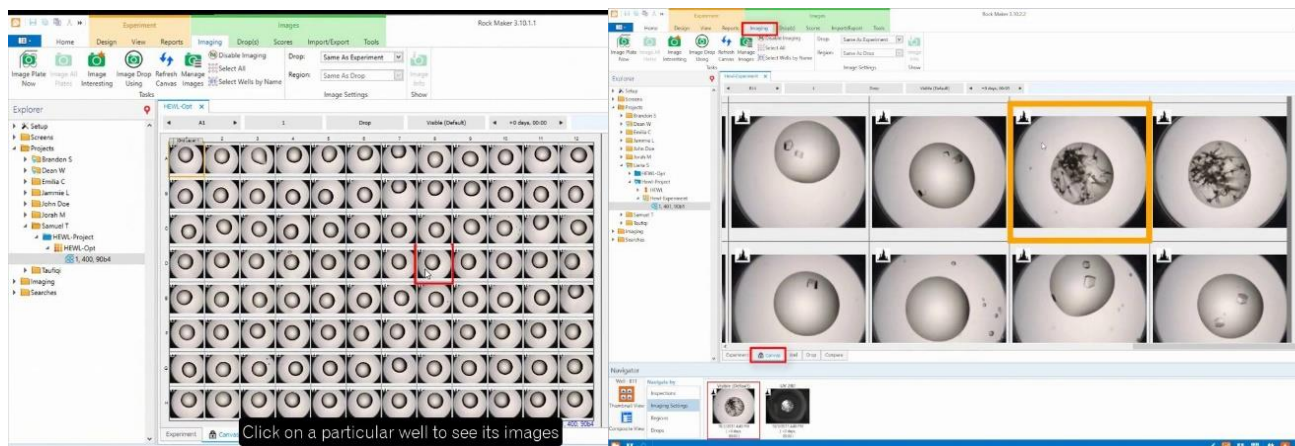
- Proportionally-Controlled Active Humidification prevents sample evaporation and increases experiment reproducibility.
- Integrated with the Rock Maker crystallization software.



**Rock Imager (Formulatrix)** - An automated imaging system for protein crystallization. This apparatus incubates and captures quality images of up to 250 crystallization plates on a user-defined schedule.



**Rock Maker (Formulatrix)** - Powerful software which provides experimental design, and which automates and tracks the crystallization process. It allows for the rapid creation of complex experiments and crystallization screens in a user-friendly environment.



### **Services:**

1. High-throughput (HT) vapor diffusion crystallization screening in hanging drop, sitting drop and microbatch set up for crystallization conditions. A variety of crystallization screens are available in the MCRC in order to facilitate the crystallization process of new projects. The crystallization plates are being stored at 20C, 13C or 4C. Each user can follow after his own results through the Rock Maker web server, which is a user friendly environment for experiments evaluation.
2. Optimization of promising crystallization conditions. Crystallization conditions obtained after initial screening are further refined to obtain well-diffracting crystals, suitable for structural studies. This is done by fine modifications of the crystallization condition or by adding additional chemicals to the crystallization mixture.
3. Diffraction analysis for small molecules, inorganic, organometallic, metallic, macromolecular and other types of crystals.
4. Data collection of quality crystals at the on site X-ray sources.
5. Data processing using common crystallographic software.
6. Structure determination.

**For more details please contact:**

Dr. Anat Shahr

Mail: [anshahar@bgu.ac.il](mailto:anshahar@bgu.ac.il)

Phone: 08-6461807

Building 39, Floor -1, Room -103