



The Belmonte Science  
Laboratories Center

האוניברסיטה העברית בירושלים  
The Hebrew University of Jerusalem



הגות, אקדמיה ואוניברסיטה  
The Community and Youth Authority



## The Belmonte Science Laboratories Center



The Belmonte Science Laboratories Center offer a state-of-the-art meeting place at the interface of science and education.

The center which was established in 1990 forms a bridge between the formal education system and the frontiers of scientific and technological research. The advanced teaching labs on the Edmond J. Safra Campus of the Hebrew University (HU), working in close cooperation with the Israel Ministry of Education, are a cooperative venture involving the Hebrew University, the Jerusalem Municipality Education Department ("Manchi"), and the Jerusalem Foundation.

The Belmonte center is continually engaged in developing innovative and challenging programs which will expose schoolchildren to the cutting edge of scientific research, strengthening their scientific thinking and laboratory skills.

A variety of activities is maintained in order to encourage youth from middle- and high-schools to deepen their studies in Life Sciences, Chemistry, Physics, Computer Sciences and the Environmental Sciences. The schoolchildren and their teachers find university-level equipped labs with a professional and experienced staff. The labs are available for students in 9th to 12th grades. Work in the labs is done in small groups and is tailored to meet the needs of the students.

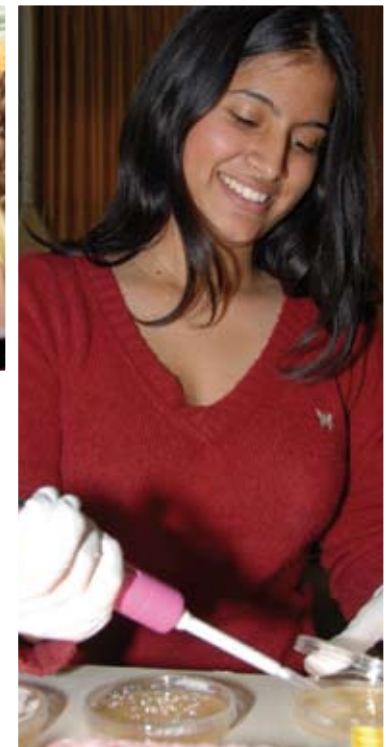
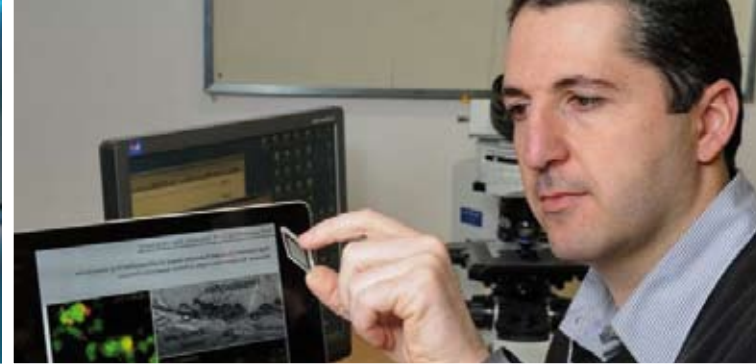


### A model

The Belmont center became a source of inspiration for many science education centers in the world. In 2009, a new Belmonte-like center was established in the Arab town of Baka-El-Gharbiye with the financial aid of the Israel Ministry of Science & Technology and nurtured by the Belmonte center.

### State-of-the-art Laboratories

High school students from all over the country visit these well-equipped teaching laboratories. And due to the partnership with "Manchi", every child in Jerusalem has the opportunity to enjoy these labs, free of charge, with programs offered in both Hebrew and Arabic.



## The Main Programs in Belmonte Center

### Core program

The Belmonte center offers a vast range of experimental and other hands-on activities in chemistry, physics, biology and related fields, enabling teachers to demonstrate those parts of the curriculum which cannot usually be done in an ordinary school lab. Understanding what actually goes on in an advanced laboratory and analyzing the results of their own experiments helps children deepen their comprehension and internalize the study material.

### Encouragement of science as a specialty course of study

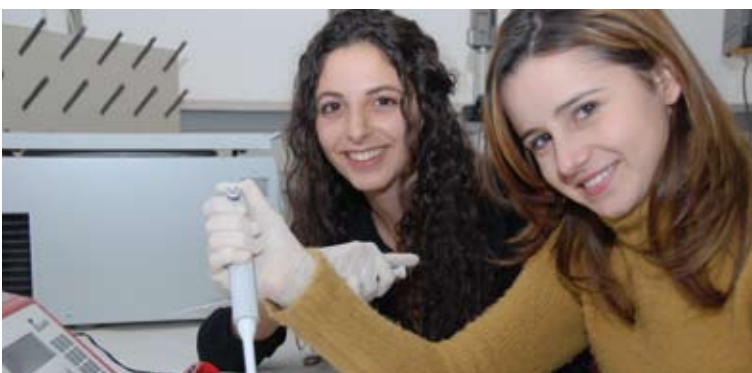
The Belmonte Center provides a wide range of attractive, scientific activities that have been specifically designed to introduce schoolchildren to the natural sciences and encourage them to specialize in these subjects.

### Academy in the high school

This 6-year program offers outstanding children the opportunity to combine academic studies and regular studies at high school.

## Academic and pre-academic programs

Special laboratory programs in chemistry and biology for students in the university preparatory program ("Mechina") and in academic colleges.



## Regional classes attended by excellent students from different high schools

These challenging classes for outstanding students are provided in order to enable them to study unique topics at university level which are not usually available in high school. These classes include: Astrophysics, Biotechnology, Robotics, Nano-chemistry and Game theory.



## Empowering women in science

The goal of the program for empowering of women in science and technology is to enrich the technological knowledge of the girls and provide them with practical skills so that they can recognize the opportunities the scientific world provides for women.

In 2011 Belmonte got a special award from the Unit for Gender Equality at the Ministry of Education for two successful programs: "ALMA" and "Girls for Excellence", which encourage excellent girl students to choose academic careers in science and technology.



## Research projects and final matriculation theses

This challenging program opens the university research laboratories to talented high-school students who have the interest and motivation to become integrated into a university research team. The dissertation is submitted the ministry of education for certification as part of the students matriculation.

## Summer scientific camps

these are aimed at youngsters looking for an alternative experience for their summer vacation, that is both enjoyable and challenging. These summer camps bring together young people from different places and cultures, where they can meet and get to know each other in guided science and technology sessions. Interdisciplinary projects linking science with technology, or with entrepreneurship, promote creative and innovative thinking which fascinate students of today.



## Professional development of teachers

The Belmonte center runs training programs and workshops for active science teachers utilizing new materials. The center also provides pedagogical and academic support to the teaching community.

## Back to school: scientists visit high-schools

The university's leading researchers and best lecturers visit schools in and around Jerusalem in order to demonstrate the cutting edge of science in their particular field. The lecturers meet with young school students from science tracks and also those who have not yet chosen their major subjects for matriculation.



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