



مركز أبحاث الشرق الأوسط للجينات والتقنية البيولوجية

Middle East Genetics and Biotechnology Institute (MEGBI)

رأسنحاش - قضاء البترون - لبنان

A Member Institute of AECENAR (a German Association)

Main Road, Ras- Nhache, Batroun, Lebanon

<http://www.aecenar.com/institutes/megbi>



الشركة اللبنانية الألمانية للبيوتكنولوجيا

LG Biotech

رقم ٣٩٩ في سجل التجاري بيروت مسجل في تاريخ ٢٠٠٩/٥/٢٨

- رأسنحاش - قضاء البترون - لبنان

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دورات في الهندسة الوراثية والبيوانفورماتيكس

Training Courses in Genetic Engineering and Bioinformatics

Training Program 2013 / 2014

Basic Techniques for working with DNA (5 days)	Bioinformatics (5days)
25.11.2013 – 29.11.2013	2.12.2013 – 6.12. 2013
27.1.2014 – 31.1.2014	3.2.2014 – 7.2.2014
24.3.2014 – 28.3.2014	31.3.2014 – 4.4.2014
26.5.2014 – 30.5.2014	2.6.2014 – 6.6.2014
28.7.2014 – 1.8.2014	4.8.2014 – 8.8.2014
22.9.2014 – 26.9.2014	29.9.2014 – 3.10.2014

تنتهي مدة التسجيل أسبوعين قبل البدء بالدورة

A. Training topics and outline

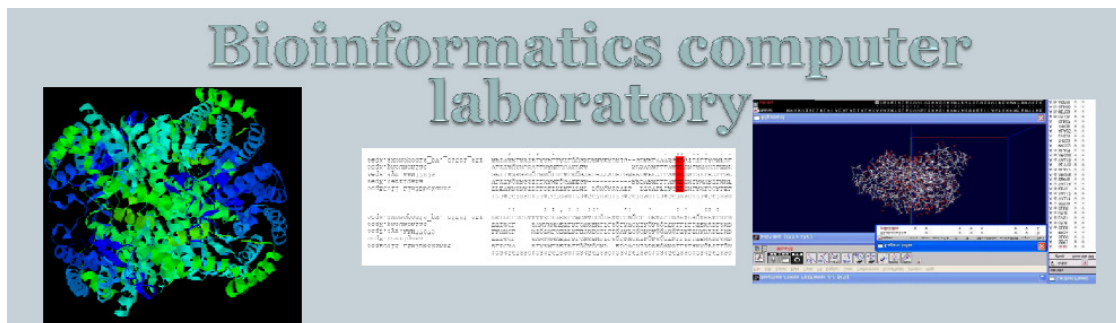
A.1 Basic Techniques for working with DNA (5 days)

Molecular Biology & Genetic Engineering Laboratory



Mon	8 – 12	Theoretical background of the training course and methods, Discussion of the workflow of the training course
	13 – 18	Preparation of plates for bacteria (LB plates with ampicillin/IPTG/X-Gal, SOC medium)
Tue	8 – 12	DNA isolation, primer design for PCR
	13 – 18	PCR to isolate SRY gene
Wed	8 – 12	Agarose gel to check the PCR and isolate the PCR product
	13 – 18	Ligation of SRY gene in pGEM-T, Transformation in E.coli and plating (overnight growth)
Thu	8 – 12	Screening of E.coli colonies, inoculation of minipreps (overnight growth)
	Afternoon	Holiday
Fri	8 – 12	Miniprep of the plasmid DNA (Isolation of recombinant plasmid from E.coli cells)
	14 – 19	Restriction digest and Agarose Gel, Discussion

A.2 Bioinformatics (5 days)



A.2.1 Working with Life Science Databases

Outline (Short Description)

In this practical course each student gets a specific task to investigate a specific protein or gene. He/she has to search for information in the databases he/she had learned in the theoretical course “Life Science Databases and Analysis Tools”.

The information has to be gathered and presented in a 20 minutes speech.

A.2.2 Working with Molecular Modelling Tools

Outline (Short Description)

In this course the molecular modelling tools VMD and BallView are considered in deep.

The proteins/genes of the Course Part “Working with Life Science Databases” are visualized and investigated by the computer programs.

Content

- **BALL/BallView** Tutorial
- **Visual molecular dynamics (VMD)** Tutorial

Mon	8 – 11.30, 12.30-17	Giving the tasks to groups of 2 students, beginning of database search in the Computer Lab.
Tue	8 – 11.30, 12.30-17	Continuing Database Search in the Computer Lab; Working out the results to a power point presentation.
Wed	8 – 11.30	All groups: Presentation of results
Thu	8 – 11.30, 12.30-17	working with the molecular modeling tools BALLVIEW and VMD (visualization of proteins etc.). The proteins/genes of the Course Part “Working with Life Science Databases” are visualized and investigated by the computer programs.
Fri	8 – 11.30, 12.30-17	continuing of 4th day

A.3 Under construction / في طور الاعداد

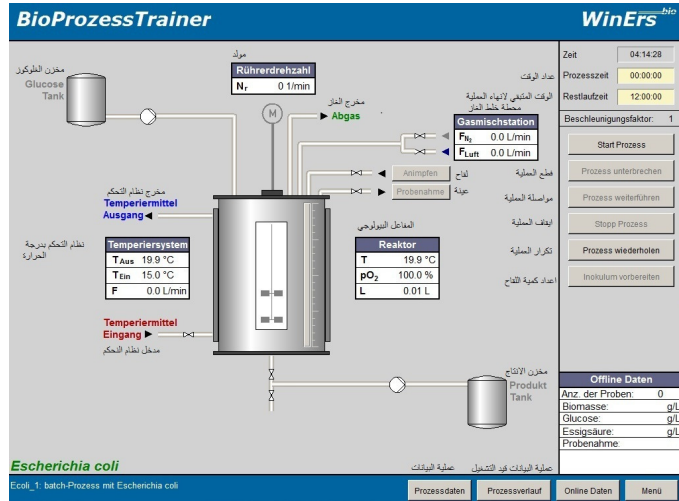
Upstream and Downstream Biotechnology Chain

Training Course

„Working with a bioreactor“

برنامج الدورة

كيفية عمل المفاعل البيولوجي (bioreactor)



B. Fees / رسوم الإشتراك في الدورات

For each course (5 days):

For undergraduate and graduate students/ للطلاب الجامعي: 400\$

For doctoral students / لطلاب الدكتوراه: 600\$

For industry representatives / للعاملين في القطاع: 850\$

FOR FUTHER INFORMATION, please contact the following:

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