



International Centre for Genetic Engineering and Biotechnology

ICGEB Course: CRISPR/Cas9 genome editing: a new approach for

therapeutics (hands-on course)

Course Agenda

Tuesday, September 20th (Lectures + Practical Session 1)

Lectures and Practical session: Dr. Mahmoud El-Tayeb seminar venue in Arts and Culture complex, Helwan University

09.00 am - 09.30 am

Registration on desk

Opening Remarks

Prof. Sameh Soror, Dean Faculty of Pharmacy Helwan University

09.30 am - 10.10 am

Prof. Mona Attia, Helwan University vice president for postgraduate and scientific research

Prof. Walaa Shata, President of Science and Technology and Innovation Funding Authority

Prof. Mahmoud Sakr, President of Academy of Scientific Research and Technology

Prof. Hossam Refai, Acting president of Helwan University

Group Photo

10.15 am - 11.00 am

Basic Principles of Genome Editing Technologies: From ZNF to CRISPR

Prof. Stephan Brown

11.00 am - 11.15 am

Coffee Break

11.15 am - 12.00 am

Different modified CRISPR/Cas9 approaches and Non-Cas9 Systems for Gene Editing

Prof. Stephan Brown

12.00 pm - 01.00 pm

Genome editing as a therapeutic approach to genetic diseases

Prof. Andres Muro

01.00 pm - 02.00 pm

Lunch

02:00 pm - 06:00 pm

***Practical Session 1**

Dr. Shady Estfanous

Wednesday, September 21st (Lectures + Practical Session 1)

Lecture venue: Dr. Mahmoud El-Tayeb seminar venue in Arts and Culture complex, Helwan University
Practical Session: Helwan Structural Biology Center for Excellence, Helwan University

09.30 am - 10.15 am

Diversity of Alternative Mechanisms for Double-Stranded DNA Break Repair and How can be used to Benefit the Desired goals of a CRISPR/Cas9 Experiment

Prof. Stephan Brown

10:15 am – 10:30 am

Coffee Break

10.30 am - 11.45 am

Developing efficient therapeutic approaches using genetically modified mouse models.

Prof. Andres Muro

11.45 am - 12.45 pm

Lunch

12.45 pm - 01.00 pm

Moving to HSBR Lab

01.00 pm - 06.00 pm

***Practical Session 2**

Assoc. Prof. Hesham Hafez

Dr. Shady Estfanous

TA. Marwan Hesham

TA. Mohanad Hakam





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Thursday, September 22nd (Lectures + Practical Session 3)

Lecture venue: Dr. Mahmoud El-Tayeb seminar venue in Arts and Culture complex, Helwan University

Practical Session: Helwan Structural Biology Center for Excellence, Helwan University

09.30 am - 11.00 am	Molecular Design of CRISPR Libraries and Their Applications for Functional Screening and Gene Discovery	Prof. Sherif El-Khamisy
11.00 am - 11.15 am	Coffee Break	
11.15 am - 12.45 pm	Emerging Clinical Applications of CRISPR/Cas9 as Promising Strategies in Gene Therapy and Disease Correction	Prof. Sherif El-Khamisy
12.45 pm - 01.30 pm	Lunch	
01.30 pm - 01.45 pm	Moving to HSBR Lab	
01.45 pm - 05.00 pm	*Practical Session 3 and closing ceremony	Assoc. Prof. Hesham Hafez Dr. Shady Estfanous TA. Marwan Hesham TA. Mohanad Hakam

*Groups for practical sessions will be specified within practical session.

*All group trainees must bring clean white lab coat and face shield with them as it's necessarily to attend the practical sessions.

