



جامعة بنها



الهيئة القومية لضمان
جودة التعليم والإعتماد



قسم تنمية الثروة الحيوانية

عناوين الأبحاث الخاصة بمادة الوراثة والهندسة الوراثية للفرقة الثانية من

البرنامج العام

Gene

1	Insulin manufacture by Recombinant DNA technology
2	Foot and mouth Disease vaccine manufacture by Gene splicing
3	Applications of PCR
4	Difference between PCR and real time PCR
5	Growth hormone synthesis by recombinant DNA technology
6	Genomic libraries
7	cDNA libraries
8	Knockout organisms and transgenic organisms
9	Nucleoside and Nucleotides and significance of nucleoside triphosphate
10	Stability of DNA molecules inside cell
11	Interferon production by gene splicing
12	Polynucleotide and its importance
13	Watsons and crick model of DNA structure
14	X-ray crystallography of DNA
15	Cloning of DNA in vitro and Taq polymerase enzyme
16	DNA as a nucleic acid and its different forms
17	RNA as a nucleic acid and its different forms
18	Different forms of DNA and its significance with individual identification
19	Biological synthesis of DNA
20	DNA polymerases proofreading and its mutation
21	Genetic control of replication
22	Overview on recombinant DNA technology
23	Reverse transcriptase enzyme in recombinant DNA technology
24	Transcription factors, promoters and enhancer role in transcription
25	RNA editing
26	Heterogonous nuclear RNA and its processing
27	Ribosomes and its role in protein synthesis
28	Translation in eukaryotes
29	Restriction endonucleases and its role in genetic engineering
30	Improvement of genomic structure using genetic engineering
31	Cloning of DNA in prokaryotes



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32	Deciphering of genetic code
<u>عناوين الأبحاث الخاصة بمادة الوراثة والهندسة الوراثية للفرقة الثانية من البرنامج العام</u>	
33	Recombinant DNA technology as a tool in genome analysis
34	Lac Operon in E. coli
35	Histidine Operon in Salmonella
36	Classification of mutation
37	Tautomeric form & Types of Point Mutations
38	Chemical Mutagens
39	Radiation Mutagens
40	DNA Repair Mechanisms
41	Carcinogens
42	Light Chains of Antibody
43	Heavy Chains of Antibody
44	Red cell Antigens
45	Neonatal Isoerythrolysis (NI)
46	The Major Histocompatibility Complex (MHC)
47	Genetic resistance and pathogens
48	Genetic Control of Infectious Diseases
49	Somatic gene therapy
50	Germ-line gene therapy & Enzyme Replacement Therapy