أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	Ibn Al Hathiam eduction			
Department	DEPARTMENT OF BIOLOGY			
Full Name as written inPassport	IMAN SAMI AHMED AL-JUMAILY			
e-mail	Memo-aljumaily@yahoo.com			
Career	◌ Assistant Lecturer	x ecturer	◌ AssistantProfessor	◌ Professor
	◌ ter	x		
Thesis Title	Comparative Morphological and Histological Study of The Eye in Two Species of Iraqi Freshwater Fishes (*Silurus triostegus* Heckel and *Liza abu* (Heckel))			
Year	2009			

Abstract

Abstract

The present study included comparative morphology and histology of eyeball in Asiatic cat fish *Silurus triostegus* (Heckel) and hishni *Liza abu*. The results revealed the following:-

Morphological Description :

* Both fishes have pair of lateral eyes situated inside the orbit , it appears relatively big in *L. abu* in contrast with head and body size. Both fishes lack eye lids but they replaced by secondary spectacle in *S. triostegus* and reduced vertical lid in *L. abu*. In *S. triostegus* , the eyeball, optic nerve and joined muscles , formed funnel shape structure , while in *L. abu* the eyeball seems as ellipsoid shape due to density of adipose tissue surrounded it with short optic nerve.

* The iris in *S. triostegus* is silver or pailgold in color with scattered melanin pigments while in *L. abu* is brilliant silver mostly without melanin pigments.

* The papillary edge of iris (free edge) in *S. triostegus* bow towared to touch the surface of lens in whole sides, same thing in *L. abu* but the papillary edge leaving the ventral part of lense to gap. The shape of pupil opening is circle in its shape in both fishes. Its size is stable in *L. abu* and alter in *S. triostegus*.

*The essential components of eyeball are similar in both fishes, they composed of three tunicae, the outer one named fibrosa , the middle is vasculosa , and the inner is retina.

* The lens in both fishes are spherical in shape, rigid and transparent , occupied two thirds of eye cavity and fixed dorso-nasally by suspensory ligament and temporally by retractor lentis muscle in *S. triostegus* mean while it linked dorsally with suspensory ligament and ventrally with retractor lentis in *L. abu* .

Histological Structure :

* Sclera in both fishes consist of two layers , the outer one contains collagen fibers and the inner include hyaline cartilage. The cornea , consist of two layers also , the outer named dermal cornea and the inner called scleral cornea , the first layer was very thick in *S.triostegus* so called secondary spectacle separated from the secondary layer by tissue space with tenuous collagen fibers , which absent in *L.abu*. Histologically, the cornea has superficial epithelium- non keratinized stratified squamous epithelial tissue based on Bowman`s basement , then dermal stroma and sclera rich with collagen fibers, beneath that there is Descement`s membrane which consider as basement for

posterior epithelium – simple squamous tissue.
* Choroid layer formed from pigmented vascular connective tissue , it is wider in *L. abu* , but separated from sclera by space called perichoroidal space in *S. triostegus* . In *L. abu* this space is filled with adipose tissue . In both fishes , the choroid has three secondary layers , suprachoroidal layer , vessel layer and choriocapillaries layer, the first secondary layer is not found in *L. abu* , also there is choroid body and choroidal tapetum lucidum are found *S. triostegus* only . Ciliary body is smoothin both fishes , it`s components similar to those in iris .They are consisting two parts , the first is originated from choroid forming stroma while second originated from retina which include two epithelial layers , the superficial layer- non pigmented epithelial layer and the deep layer – heavily pigmented epithelial layer.
* The lenses in both fishes are large and spherical in shape surrounded by homogenous a cellular capsule and followed by cuboidal epithelial cell layer which situated beneath the capsule and completely surrounded by lens. The lens fibers situated under the epithelial layer and arranged as uni-central rings interact with each other by sutures of their membranes.
* The retina in both fishes composed of external pigmented epithelial layer and internal layer called neural retina which include visual cells layer (Rods and Cones) , external limiting membrane, outer nuclear layer , outer plexiform layer , inner nuclear layer, inner plexiform layer, ganglion cells layer, nerve fibers layer of retina and inner limiting membrane . On the other hand there are falciform process and vitereal vessels is extended upper to retina , which are found only in *S. triostegus* .
* Pigmented epithelium consist of cuboidal cells which become columnar in some regions and there are apical processes extend from the free surface of the cells surrounding the outer segments of visual cells, the processes have melanosomes , mean while the visual cells in both fishes have cones and rods with myoid element, myoids are inconspicuous in *S. triostegus* . The cones in *S. triostegus* are large but in *L. abu* found in four types , long single cones, short single cones , dwarf cones and twin cones. It appears that the cones in *L. abu* arranged as mosaic include square and row patterns, but they are distributed randomly in *S. triostegus* , also the cones in *L. abu* have lateral fins which are lack in *S. triostegus*.
* The outer and inner nuclear layers showed differences in thickness. The relative of large bipolar cells in *S. triostegus* are more than in *L. abu* , also the ganglion cells arranged as single row in both fishes, there are three types of ganglion cells , long, medium and small as well as

	there is additional type called Giant ganglion cell found in *L. abu* . Only *S. triostegus* have small ganglion cells agreggate in both sides, of falciform process. * The head of optic nerve has multiple papillae in *S. triostegus* , while it is smooth in*L. abu* .

University of Baghdad				
College Name	Education Ibn AL-Haitham			
Department	Biology			
Full Name as written in Passport	Intessar Faysal Abd			
e-mail				
Career	◉ Assistant Lecturer	○ Lecturer	○ Assistant Professor	○ Professor
	⇦ Master	○ PhD		
Thesis Title	TAXONOMIC STUDY OF SOME SPECIES OF SUBORDER ANISOPTERA , ORDER ODONATA FROM MID AND SOUTH OF IRAQ			
Year	2011			

Abstract

Summary

Taxonomic study of ten species from seven genus belong families: Aeschnidae and Libellulidae from suborder Anisoptera of the order Odonata which were collected from mid and south in Iraq.

Detailed taxonomic and morphological study were done on the species collected during the study, such study was included : Detailed description of most body parts (Head, Thorax and its appendages ,Abdomen and its appendages), identification and recognition of species, study male and female genitalia, formulation of taxonomic keys to isolate the two families and their genera and species. During our study, the following species were studied.

Family: Aeschnidae.

Genus: *Anax* Leach.

Anax parthenope Selys, 1839.

Genus: *Hemianax* Selys.

Hemianax ephippiger Burmeister 1883.

Family: Libellulidae

Genus: *Trithemis* Brauer.

Trithemis annulata Palisot de Beauvois, 1807.

Genus: *Brachythemis* Brauer.

	Brachythemis fuscopilliata Selys, 1887. Genus: *Orthetrum* Newman. *Orthetrum sabina* Drury, 1773. *Orthetrum brunneum* Fonscolombe, 1837. Genus: *Crocothemis* Brauer. *Crocothemis erythraea* Brulle, 1832. *Crocothemis servilia* Drury, 1773. Genus: *Diplacodes* Kirby. *Diplacodes lefebvrei* Rambur,1842. *Diplacodes trivialis* Rambur,1842 The species *Diplacodes trivialis* Rambur new record to Iraqi fauna of Odonata

University of Baghdad

College Name	College of Education- Ibn Al- Haitham/ Baghdad University
Department	Biology
Full Name as written in Passport	Israa Abduljabbar Ibrahim
e-mail	Israa_ibrahim66@yahoo.com
Career	◌ Assistant Lecturer ◌ Lecturer (x) Assistant Professor ◌ Professor
	◌ Master (x) PhD
Thesis Title	Bacteriological and plasmid content studies of antimicrobial resistance of Sallmonella.
Year	3/11/2003

Abstract

SUMMARY

1- Forty *Salmonella* strains were isolated from blood and stool samples of patients at different hospitals in Baghdad, during the period between June 2001 and July 2002.

2- The following serotypes were isolated: - *S.typhimurium* (69%), *S.enteritidis* (10%), *S.typhi* (8%) and (13%) of other *Salmonella* species.

3- No significant difference in the incidence of salmonellosis in relation to sex (P>0.05) was recorded. Only in case of *S.typhimurium* the chi- square value showed a significant difference between male and female groups (P< 0.05).

4- All isolates were screened for their resistance to amoxicillin, ampicillin, chloramphenicol, co-trimexazole, cephalexin, cefotaxaime and ciprofloxacin, using disc diffusion method. *Salmonellae typhimurium* isolates (80%) were multidrug resistance (MDR) for six antimicrobial agents.

5- The antibiotic resistance patterns of these isolates have indicated differences in their profile, 89.2% of *S.typhimurium* isolates were resistant to amoxicillin and ampicillin . *Salmonellae typhimurium* isolates were resistant to chloramphenicol, cefotaxaime, co-trimexazole, cefalexine and

tetracycline (85.7%, 82.1%, 82.1%, 78.5%, 7.1%) respectively.

6- The minimum inhibitory concentration (MIC) was determined for the common antimicrobial agents and for all isolates. The high MICs value of ampicillin, trimethoprim and sulfamethaxazole were in the range of 1050-733.3 «g/ml for all resistant isolates, while 554.5-217.8 «g/ml for cephalexin, cefotaxaime and chloramphenicol. All *Salmonella* isolates were sensitive to ciprofioxacin (MIC 0.475 «g/ml).

7- Serum samples (49) of suspected typhoid patient revealed Widal test ≥ 160 Ab titer for O-Ag and ≥ 80 for H-Ag in relation with correlation was performed with liver function test ; 44.8% of serum samples showed elevation in S.Bilirubin, 20.4%, 16.3%, 2.04% in AST (Asparate transaminase), ALT (Alanine transaminase) an alkaline phosphates respectively.

8- Mathematical model was described in an equation for relationship between the logarithmic molecular weight of plasmid band and distance in centimeter for digested λ DNA (Pst I).

9- Screening of plasmid content revealed that the presence of single mega plasmid was found in 72.7% of multidrug resistance *Salmonella* isolates.

10- The presence of small plasmid in all tested isolates was detected. High frequency molecular weight was observed in the range between 2.1-2.93kb (1.33-1.86Md), in *Salmonella* isolates.

11- The relation between resistance to antimicrobial agents and plasmids was found to be directly proportional (P>0.01).

University of Baghdad

College Name	Education (Ibn AL-Haitham)
Department	Biology
Full Name as written in Passport	Israa Kareem Nassrullah
e-mail	israanassrullah@yahoo.com
Career	◌ Assistant Lecturer ● Lecturer ◌ Assistant Professor ◌ Professor
	◌ Master ● PhD
Thesis Title	A Comparative systematic study for the wild species of the genera Phlomis L. & Sideritis L. of the Labiatae
Year	2007
Abstract	A comparative systematic study has been carried out for (8) species and one hybride of the genus Phlomis L.,and two species of the genus Sideritis L. belong to the family Labiatae in Iraq.Gross and micromorphology ,anatomy ,chemistry,cytology,ecologyand geographical distribution were done for all species of the above genera. General survey for the phytogeographical districts where the species of genera distributed, in order to detect the distribution of the species studied , and many collection obtained , and new locations for the most species studied recorded. All the specimens of Iraqi herbaria were checked and identified. The morphological characters of all the species starting from roots up to the flowering and fruiting parts were compared and the most important ones for identification were used.Maps ,illustration ,plates and schedules have been prepared. The study reveild that the characters of calyx ,bracteols ,the type of rachis branching ,some characters of corolla and nutlets ,besides the variations in the shape and size of basal leaves have important taxonomically to identify and segregate the species of Phlomis .On the other hand bracts shape and characters of calyx ,corolla and nutlets were taxonomically important and were used to identify and segregate the species of Sideritis.

Pollen grains were also taxonomically useful due to their variations in size and shape.

The anatomical characters of leaf ,petiol ,stem and indumentum were studied in all species of the tow genera. The current investigation gives the petiole priority in the anatomy among the others parts ,as the petiols cross section showed an important variation in the cross section shape ,shapes of middle vascular bundles and the numbers of lateral vascular bundles.

The vertical sections of leaves appear important taxonomically specially the shapes of middle vascular bundles and thickness of laminae ,stomatal complexes and ordinary epidermal cells studied too which gives clear and important idea for increase distinction .The stem anatomy showed valuable characteristics ,such as the number of collenchyma groupes and the thickness of xylem in vascular bundles. The trichomes appear important variations in their shapes ,lengths , and types ,so it has a considerable value in segregation of genera and their species .

The geographical distribution and ecology of the species studied were carried out and maps were prepared for this purpose ,P.bruguieri DesF. was widely distributed ,while P.polioxantha Rech F. and P.coriserica AL-Musawi & Nasrullah are narrowly distributed .Compared with the Phlomis ,Sideritis is narrowly distributed.

Phenolic compounds were determinated according to known standards .The distribution of these compounds were variable in various species . Haploid chromosome number counts for two species P.bruguieri (1n=6) and S.kurdica (15) were determinate for the first time. Numerical treatment was set out according to numerous selected characters derived from this systematic research result ,and graphs were presented.

Through this work a new species namely P.coriserica were discovered and described as new for science.

Finally full descriptions and treatment were presented including keys for the different taxa presented in this work.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	Ibn Al-Haitham			
Department	Biology			
Full Name as written in Passport	Israa kasem saleh Al-Aubaidi			
e-mail	Israa.kasem@yahoo.com.			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master	● PhD		
Thesis Title	Effect of some plant extracts on growth and viability of cutaneous and visceral leishmanial parasites *in vitro* and *in vivo*			
Year	2007			

Abstract

SUMMARY

Smears, bone marrow aspirates and sera were obtained from 25 suspected patients with visceral leishmaniasis (VL) and 25 cutaneous leishmaniasis (CL). Bone marrow cultures were positive in 40% of VL cases, while the serological test was positive in 76% of cases. Parasites were demonstrated in 80% of CL smears against 44% of positive cultures.

The causative organisms in Iraqi patients with leishmaniasis were identified according to the electrophoretic variations of glucose phosphate isomerase (GPI), glucose-6-phosphate dehydrogenase (G6PDH), malic enzyme (ME), malate dehydrogenase (MDH) and hexokinase (HK) enzymes. A total of 63.6% CL isolates were found to be more similar to *Leishmania major* reference strain, while 36.4% were rather similar to *L. tropica* reference starin. In VL isolates, 90% were

similar to the Mediterranean reference starin (*L. donovani infantum*), while 10% were similar to the Ethiopian reference stain (*L. donovani donovani*).

Part of the present study was designed to investigate the antileishmanial activity of the aqueous extracts of two plants: the roots of licorice (*Glycyrrhiza glabra*) and the leaves of periwinkle (*Catharanthus roseus*) both *in vitro* and *in vivo*. Both plants were found to have direct *in vitro* leishmanicidal action. The promastigote form was found to be more resistance than the axenic amastigote form. The biochemical interaction of these two plants on the two forms of *Leishmania* spp. enzymes of carbohydrate metabolism: HK, GPI, fructophosphokinase (FPK), G6PDH, 6-phosphogluconate dehydrogenase (6PGDH), succinate dehydrogenase (SDH), MDH, ME as well as some virulent enzymes: protease and acid phosphatase (ACP) were studied. *G. glabra* and *C. roseus* aqueous extracts were found to have an inhibitory action on all studied enzymes.

The antileishmanial activity of the aqueous extracts of *G. glabra* and *C. roseus* were studied, *in vivo*, through the intarperitoneal injection of infected BALB/c mice with different concentrations of *G. glabra* or *C. roseus*. The dose of 15 mg/ml (2 doses/ 2 weeks) *G. glabra* against leishmanial parasites showed significant suppression in parasitic load in spleen, smaller-sized lesions and reduced splenic weight and length. Significant decrease in the activity of liver enzymes: alkaline phosphatase (ALP), lactate dehydrogenase (LDH),

glutamic-pyruvic transamianse (GPT) and glutamic oxaloactic transamianse (GOT) as well as adenosine deaminase (ADA) in sera of treated infected mice was noticed. Some pathological changes were noticed in the liver (minimal diffused vacuolated hepatocytes, fatty degeneration, cloudy swelling and narrowing sinusoids) and spleen (extramedullary hemopoiesis and immature polymorphic nucleated leucocytes in red pulp). *C. roseus*, on the other hand, was less affective than *G. glabra* and failed to complete reduction of the parasite load in the spleen. The enzymatic levels were still high in treated mice. It caused severe damage to the liver (fatty changes, increased number of Kupffer cells with narrowing sinusoids) and spleen (depletion of white pulp lymphoid tissue, poor lymphoid follicle and neutrophilic infiltration).

The possible immunomodulating action of *G. glabra* and *C. roseus* was evaluated. Immunomodulation with *G. glabra* was more affective in comparison with the treatment experiment. High significant decrease in the parasitic load with parallel decrease in splenic weight and length were noticed. Also, the lesions were not apparent. The enzymatic activity was also decreased. In addition, slight histopathological changes were noticed. However, immunomodulation with *C. roseus* showed slight reduction in the mean number of parasitic burdens and caused many histopathological changes in liver (thrombosed blood vessel atherosclerosis and hepatocyte necrosis) and spleen (lymphocytic necrosis and depletion of lymphoid follicle). Such observations indicated that *C. roseus* proved to be a bad antileishmanial agent in comparison with *G. glabra* especially *in vivo*.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Education ibn al haithem			
Department	biology			
Full Name as written in Passport	Khaleel m.mahdi			
e-mail	Khalil_mehdi7@yahoo.com			
Career	● Assistant Lecturer	○ Lecturer	○ Assistant Professor	○ Professor
	● Master	○ PhD		
Thesis Title	Manufacturing of Lebneh (Concentrated yoghurt)by using different concentration of milk			
Year	1983			
Abstract	The research aims to produce a product to the children of a high nutritional value and has a long-term conservation in addition to the ease of transportation and storage and thus made available to the consumer throughout the year, using powdered milk. And carried out research on the :following stages .Preliminary experiments on the manufacturing methods - .The use of three primers and a concentration of 16% milk solids College - The use of initially in the industry of fresh milk and a combination of both - Redux and a 1:1 ratio and concentrations 12,15,18 m p k and using the .thermal treatment of the block and without it .Study the process of nomination of whey from milk factory - Evaluation of yoghurt produced from both the food and nutrition -			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	College of education ibn al hathaim			
Department	Biology			
Full Name as written in Passport	Khudair A. Hassan			
e-mail	k.alameri@yahoo.com			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	● Master	◌ PhD		
Thesis Title	The relationship between fat content of BAKER'S YEAST and their stability and viability during storage			
Year	1984			
Abstract	One of the problems facing the unit of baker's yeast production at Nineveh factory is the loss of activity and viability of yeast after drying and during storage An attempt was made to study the growth conditions that affect the oil contents of yeasts and the changes that occure in these fats like peroxide value,iodine number and free fatty acids during drying and storage and the relationship between these change and their viability and activity of yeasts The activity of yeasts was found by measuring the rise of dough for 90 Minuts in agraduated cylinder,the viability was measured by the use of methylene blue pigment in which the dead cells appear coloured under the microscope			

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	Lamya Mustafa Amin			
e-mail				
Career	☐ Assistant Lecturer	☐ Lecturer	☐ Assistant Professor	☐ Professor
	☐ Master		☐ PhD	
Thesis Title	Some cytogenetical effect of rodenticides zincphosphide and brodendifacoum on *Zea mays* and *Vicia faba*			
Year	1995			
Abstract	The results presented here include the cytogenetial effect of the two rodenticides zinc-phosphide and kemort on *Zea mays* and *vicia faba* as parameters. The method used involved direct treatment of different concentrations of both rodenticides to root tip Zea mays which had not subjected to fumigation and those raised from grains collected from fields fumigated with both rodenticides, in addition to *Vicia faba* root tips. Root tips were treated with given concentrations of the rodenticides for 4 hours, then pretreated with α-monobromo-naphalin (α-m.b.n.). Then squashed and stained by fulgen inorder to prepear slides for studying mitotic index (MI), phase index and to detect any chromosomal aberrations or cytogical abnormalities induced by the roddenticides. Complete randomized block design method was applied with three replications. Some of these plants were grown in pots with both baits, and as they reach 20 cm. of hight, plants were transferred to the field with soil contents of the pots. Remarks were made on percentage of seeds germination, and some morphological aspects of roots, stems, leaves, inflorescences and ears. Microsporocytes in various stages of meiosis have been studied and some of the abnormalities were recorded, the latter include chromosomal breakages, changes, changes in viscosity and multivalnets. The present in-vestigation on Zea mays provides a good parameter for detecting cytogenotoxicity of the two rodenticides studied, it also provides supporting evidence to the use of Vicia faba as aparameter for detecting cytogenotoxicity of pesticides. All the results of this study have been discussed indetail, effects of both rodenticides are similar to the effects od different chemicals mutagens, pesticides, ionizing and non-ionzing radiations were known to cause harmful and lethal structural changes including chromosomal aberrations other cytogenotoxic			

	effects.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	**Ibn al haitham education**			
Department	**Biology**			
Full Name as written in Passport	**LUMA ABDULHADI ZWAIN**			
e-mail	**lumaabdalhadee@yahoo.com**			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master	● PhD		
Thesis Title	**preparation of Meillard Reaction Compounds from Whey and the Evaluation of their Chemical and Biological Activity**			
Year	2006			

Abstract

Summary

The Whey lyophilized which is used after it's solved in distelled water and boiling in different pH and periods and then study the chemical and biologicl activity of these compound. the study included the following axies.

The first axis included a study of the effect of some of the physical factors of pH (7, 9, 11), boiling periods (0.5, 10 2, 3, 5 hours), whey concentration (1, 3, 6, 10 %), and the type of bufferd solution which is used to solve the whey in the formation of brown colour. The results showed:

1- The whey solution in the concentraction of 10%, boiled in five hours at pH. 11 gave high effect in the formation of brown colour.

2- Bicarbonate buffer was the best of the bufferd solution in the formation of brown colour when comparing it with potassium phosphate buffer, distelled water and sodium phosphate buffer, respectively.

3- The pH of whey solution decreased with increasing the boiling period.

The second axies included a study of the chemical activities of whey solution products and which included two aspects.

Firstly: inhibition of peroxidase enzyme: The whey products gave

high inhibitory effect on peroxidase. This effect was increased with increasing the bufferd concentration, boiling period and PH. the whey solution at concentration 6%, pH 12 and boiling for five hours gave high inhibitory present.

Secondly: inhibition linoleic acid oxidation

1- The inhibitory effect of whey products on the linoleic acid oxidation was increased with increasing pH and increasing the bioling period. The whey solution at 1%, pH 11 and boiled for five hours gave the highest inhibition perecent 68.42% and The inhibitory was increased with inereasing the concentration to 69.8% and 73.2% at 3% and 6% respectively.

2- The whey solution at 1% concentration, pH 11 and boiled for five hours seemed to have inhibitory linoleic acid oxidation effect higher than Butylated Hydroxy Anisole (BHA) and less than Propyl Galate (PG), but approximate inhibition perecentage to butylated Hydroxy Toluene (BHT).

3- The whey products that gave the highest antioxidant effect was separated by gel filtration (Sephadex-G50). Two peaks were appeared, the pcak with highest moleculer weight have antioxidant effect and positive reducing power test. After examining these peaks by using thin layer chromatography (TLC). It was shown that the higher weight peak gave three spots (0.16 , 0.50, 0.65 Rf), while the lower peak gave one spot (0.69 Rf).

The third axies included biological activities of whey solution products, which included five aspects:

Firstly: The inhibitory effect of whey solution products in (15%) concentration on the food spoilage bacteria, It was shown that the whey products boiled for (1, 3, 5 hours) and pH (7, 9, 11) have inhibitory effect on *E.col: and staphylococcus. aurens*. The inhibitory effect was higher against *Bacillus cerius* at pH.7 and solution at pH 11 on *pseudomonas* spp., although this pH has inhibitory effect on *Salmonella typhi*, as compared with the other pH but this inhibition was low .

Secondly: The mutagenic effect of whey products on the bacterial isolates: *Bacillus* spp. (G_3), *Arthrobacter* spp (G_{12}) *Brevibacterium* spp (G_{27}). The whey product at high concentration (15%) whey had

	mutagenic effect on G_{27} and G_{12}. **Thirdly: The cytotoxic effect was tested of whey products (1%) on the cancer cell lines (Hep-2, AMN-3) by using four concentrations (0.625, 1.25, 2.5, 5) mg/ml 24, 48, 72 hours as an exposure period.** **The result showed The genotoxic effect of whey products on cancer cell line was appeard at 5 mg/ml concentration for 72 hour on Hep-2 and 1.25, 2.5 mg/ml concentration for 48, 72, hours and the AMN-3. The AMN-3 cell line more sensitive than Hep-2.** **Fourthly: the genotoxic effect of whey products on lymphocytes was studied which included the mitotic index (MI) and blast index (BI) on cytotoxic parameters. In presence of PHA. It was shown that the effect of whey products on mitotic index and blast index depend on the concentration used. The higher concentration 2.5, 5 mg/ml have inhibitory toxic effect on these indices. The whey product boiled for one hour at pH.11 had the higher effect, while 1.25 mg/ml of why product at pH 11, boiled for 5 hour increased the MI and BI .** **Fifthly: the genotoxic effect of whey products boiled for five hours and pH. 11 led to decreasing the mitotic index (MI) of Hep-2 cell line the effect started from 1.25 mg/ml concentration.**

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	College of Education Ibn-alhaitham
Department	Biology
Full Name as written in Passport	LUMA SALHUDDIN ABDULQADIR
e-mail	Lumasalah70@yahoo.com
Career	◌ Assistant Lecturer ● Lecturer * ◌ Assistant Professor ◌ Professor
	● Master * ◌ PhD
Thesis Title	Bacteriological and Immunological study of Patients with Tonsillitis in Baghdad
Year	2001
Abstract	The study aimed to isolate and characterize the causative bacteria of tonsillitis in 168 patients (Female=75,Male=93) from Baghdad,It was also aimed to shed some light on immunological effects of such infection through employing the following parameters :white blood cell counts(total and differential),phagocytic index,T-rosette formation assay and the levels of IgG,IgM,IgA,ASOT,C3,C4,C-reactive protein and adenosine deaminase activity in the sera. The bacteriological study reached the isolation of four bacterial species(β-haemolytic streptococci;BHS, *Staphylococcus aureus* ;STA, *Heamophilus influenzae* ;HMI and α-haemolytic Streptococci;AHS),and the BHS represented the highest percentage (39.3%)among the other With respect to the immunological study,the total white blood cell count increased significantly in the patients(total and subgroups) compared to the controls.Assessing the phagocytic activity of polymorphonuclear cells revealed a significant increase in the total patients .While the lymphocytes showed a decrease in the rosette formation,especially in patients infected with GAS. When the levels of immunoglobulins (IgG,IgM andIgA)were evaluated,the IgG level was increased in the sera of total paitients,and such increase was not clear in acute group and in paitients infected with GDS.The IgA level did not show destrubance in the total patients,While the IgM level depressed in the total paitients only.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of education-ibn al -haitham			
Department	biology			
Full Name as written in Passport	MAHA A.NABI GATHWAN			
e-mail	mama_maha2003@yahoo.com			
Career	Lecturer			
	PhD			
Thesis Title	The effect of Methomyl(Lannate)&Oxamyl(Vydate)on common carp Cypinus carpioL.			
Year	2002			
Abstract	The study aimed to determinethe effect of two carbamates.Methomyl(lannate) Oxamyl(vydate)on some organs of common carp Cyprinus carpio L. The study includes the following aspects: 1.Median lethal concentration(LC50) 2.Behavioral changes. 3.Heamatological study. 4-Gross histopathplogicl study. 5.Histopatological study. 6.Risdues.			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of Education Ibn Al- Haitham			
Department	Biology			
Full Name as written in Passport	**Mahmoud Ibrahim Ismaeil Abdel Rahman**			
e-mail				
Career	◌ Assistant Lecturer	(V) Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master		(V) PhD	
Thesis Title	**Study of Some Bacteriological and Immunological Parameters in Chronic Urinary Tract Infection**			
Year	**2006**			

Abstract

The study included two main parts:

I. Part One included isolation and identification of bacteria that caused chronic urinary tract infection (UTI) from the urine of 80 patients whom health status was diagnosed by the medical consultant staff of Outpatient Clinic at the Hospital of Specialized Surgeries in Baghdad, during the period November 2003- July 2004. The antibiotic sensitivity and some virulence factors of causative bacteria were studied. This part reached the following results:

1- By employing microscopical examinations of urine sediment and measuring the enzyme leukocyte esterase (indirect method), 95% (76/80) and 88.8% (71/80) of the urine samples gave positive results for the pyuria, respectively.

2- Bacterial culture of urine gave 88.75% positive results (more than 10^4 CFU/ml., and for one species of bacteria. The identification of bacteria was based on cultural characteristics, biochemical tests and api systems.

3- The Gram-ve bacteria represented 83.1% of the isolates, with predominance of *Escherichia coli* (62%), followed by *Klebsiella*

pneumonieae (12.7%), *Pseudomonas aeruginosa* (5.6%) and *Proteus mirabilis* (2.8%). While the Gram+ve bacteria presented by *Staphylococcus aureus* accounted for 16.9%.

4- The percentage of infection in females was more than in males (57.5 *vs*. 42.5%). Additionally, the age range 41-60 years showed the highest percentage of infection (66.3%). However, these differences did not reach a significant level.

5- All isolates of *E. coli* and *K. pneumonieae* were resistant to most of the antibiotics tested. However, both isolates were 100% sensitive to the antibiotics nitrofurantion and amikacin, respectively.

6- The results of β-lactamase test revealed that 75, 77.8 and 72.7% of *S. aureus, K. pneumonieae* and *E. coli* were respectively positive for the test.

7- The results of hemolysin test revealed that the isolates of *K. pneumonieae* were negative in hemolysing human blood in agar plates, while 91.7 and 70.5% of *S. aureus* and *E. coli* isolates were respectively positive.

8- Haemoagglutination of *E. coli* isolates showed two main patterns:

- Thirteen isolates out of 27 agglutinated isolates showed mannose-resistance agglutination with human erythrocytes and mannose-sensitive agglutination with Guinea pig erythrocytes.
- Nine isolates out of 27 agglutinated isolates showed mannose-sensitive agglutination with human and Guinea pig erythrocytes.

II. Part Two included three antigenic preparations from an uropathogenic *E. coli* isolate (ECO_{16}), and then their immunological effects were investigated in male albino mice. The antigenic preparations were heat-killed bacteria (Antigen O), sonicated bacteria (Antigen S) and formalin-killed bacteria (antigen H). The antigens were administrated intraperitoneally according to a unified immunization programme. This part reached the following results:

1. The total count of leucocytes, lymphocytes, monocytes and neutrophils was significantly increased, with the exception of antigen H, which caused a non-significant decrease in the count of neutrophils, as compared to controls. Also, the three antigens caused a non-significant increase in the count of basophils. The antigens O and S caused a significant increased count of eosinophils, while the antigen H caused non significant decrease in these cells.
2. The phagocytic index was significantly increased after 30 and 60 minutes, and the antigen H was the best in this regard.
3. The mitotic index of thymus, bone marrow and spleen was significantly increased, with the exception of antigen S, which caused a non-significant increase in the mitotic index of spleen.
4. Indices of Arthus and delayed type hypersensitivity were significantly increased, and the antigen H was the best in this regard.
5. The plaque-forming cell index was significantly increased, and the antigen O was the best in this regard.
6. The specific activity of the enzyme adenosine deaminase was non- significantly increased in the thymus homogenate.
7. Serum electrophoresis revealed the following:
    - A significant increase in gamma globulins, and the antigen S was the best in this regard.
    - A significant decrease in total serum protein, albumin and globulin/albumin ratio.
    - A significant decrease in beta globulins, while the antigen S caused a non-significant increase.
    - A significant increase in alpha-1 globulins, with the exception of antigen S, which caused a significant decrease.
    - A significant decrease in the alpha-2 globulins, with the

exception of antigen S, which caused a significant increase.

8. The immunization with the three antigens offered a 100% protection when the animals were challenged with the minimum lethal dose (5 x 10^8 cell/0.5 ml/mouse) of live *E. coli*. The mitotic index of thymus, bone marrow and spleen of survived animals was investigated, and generally, it was decreased as compared to immunized animals (before challenge dose). However, when the results were compared with the controls, a significant increase in the mitotic index of thymus (antigens O and H), bone marrow and spleen (antigen O) was observed.

University of Baghdad

College Name	Ibn Al _ Haitham college of education			
Department	Biology			
Full Name as written in Passport	Manar Abdul-Aziz Abdulla Al-Sarraf			
e-mail				
Career	◌ Assistant Lecturer	◌ Lecturer	Assistant Professor	◌ Professor
	Master		● PhD	
Thesis Title	Ecological and TaxanomicalStudy for Phytoplankton in Al Adaim and Diyala Tributaries and their Effects on Tigris River			
Year	2006			

Abstract

Monthly water samples were collected from eight stations, out of that four stations in each Al-Adaim area *(from Sep. 2002- Feb. 2003) and* Diyala area (Jan. 2004- Jun. 2004)

Station 1 represent Al-Adaim lake, station 2 represent Al-Adaim tributary (A) and station 3 and 4 represent Tigris river (T) before and after Al-Adaim outflow respectively. While station 5 and 6 represent Diyala tributary (D) near and after the Rustamia refinary station respectively. Station 7 and 8 represent Tigris river before and after Diayla outflow respectively.

An obvious effects were found in Tigris by both A and D. The turbidity in T decreased by A and increased by D. Both A. and D. have oligahalin water (0.43 – 1.38 and 0.52-1.56 $^{0}/_{00}$ respectively), Whereas T has fresh water (0.24-0.41 $^{0}/_{00}$). Therefore D had clear effect in increasing the electrical conductivity and salinity of Tigris.

The four station in Al-Adaim area were well areated reaching full saturation, whereas D the dissolved oxygen was low (2.74 mg/L and 25.39%) due to the effect of Rustemia Refinary Station. Results revealed that values of Biological Oxygen Demand (BOD5) was higher in Diyala river compared to Tigris river.

The pH in the studied stations ranged between 7-8.6. The total alkalinity was due to bicarbonate alkalinity, Both A and D and increased the alkalinity of T.

The water in all station was very hard. although the total hardness in both A and D was higher than T, and have a vivid effect on T hardness.

Anions and cations concentrations were higher in both A and D in comparison with T. Calcium and Sulfate were the dominant cations and

anions. There was no effect of A and D on T in regard of Ca and Mg, Where as, clear effect was found in sulfate and chlorid ions.

NO_3, NO_2 and PO_4 recorded at higher conceutration in T than A, Where as, the silicate values were highjer in A than T. On the other hands all these nutrients were higher in D than A and also higher than in T near by. Due to the value of N:P ratios, N was the limiting factor in phytoplankten growth.

The statistical analysis showed a significant variations between each two stations of T in both areas in many characters such turbidity, dissolved oxygen, anion and nutrients.

A total of 151 taxa was identified in Al-Adiam area, out of that 125 taxa diatoms, 6 for each of the green and blue green and the others were eglenoids, golden and dinoflagellates.

The species was higher in T than A. Whereas, a total of 310 taxa were identified in D in which the diatoms represent by 142 taxa.

The number of blue green and green species were higher in D than A which may due to higher concentration of nutrients in D.

Several genera were represented by high number of species such as, *Nitzschia*, *Navicula* and *Cymbella*.

Diyala area has great species number of *Oscillatoria*. Also several species were found belong to *Euglena* as indicator for organic Pollution in D.

The dominance of diatoms was found in all studied stations and pennales species were more than centrales one. Also, higher cell number of green and blue green species in Diyala area than Al-Adiam area.

The average density of Phytoplankton in A was 423×10^3 unit/L, whereas in T was 1564×10^3 unit/L and 1317×10^3 unit/L in station 3and 4 respectively.

Whereas, the average density in D was 2619×10^3 unit/L and in T was 1726×10^3 and 2080×10^3 unit/L in stations 7 and 8 respectively.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Ibn Al _ Haitham			
Department	Biology			
Full Name as written in Passport	MAYSALOON LAFTA ABDULQADER			
e-mail	maysaloonlftaaldoori@yahoo.com			
Career	◌ Assistant Lecturer	◌ Lecturer	Assistant Professor	◌ Professor
	Master	◌ PhD		
Thesis Title	Aclssification study of Macroinvertebrate on Habania Lake			
Year	1990			
Abstract	This study is designed to through light on the macroinvertebrate fauna (benthos) Habania lake because of the important role it playe in water ecology . monthly samples were taken from four littoral zone and profundal stations for a complete year (june 1988 – May 1989) . The sampling station were selected in order to insure different bottom and environmental condition . the study included the classification of macroinvertebrate calculation of theis densities and the ratios of their minor taxa to the major ones and to total macroinvertebrate sampled in each sampling station and in the littoral and profund zones . Nematod was represented by a single order and two genera . Three oligochaete families (*Pristina ' Niadium osborni ' N. breviseta ' Lumbriculus ' Limnodrilus .) Two crustacean order represented by two species (Palaemonets antororum ' Cirolanides texens)* . The insect were the most variable in the both littoral and profundal zones *(Isotoma ' Podura ' Caenis ' Chormagrion conditum ' Amphiaprion saucium ' Taenioptryx ' Labia minor 'Corixa ' Sigara ' Salda ' Arctocorisa 'Notonecta ' Heterobaster' Oxytheria ' Hydroptila ' Neuroclipsis ' Rhycoptlia ; Nymphula ' Laccophilus ' Bidessus ' Deronectis ' Donacia ' Phanocerus ' Hydorus ' Enchorus ' Hydrobius ' Hydrocus ' Hydropus ' Stenus ' Paracymus ' Hydrophilus ' Berosus ' Hyperods ' Chironomus ' Hexatoma ' Tipula ' Limnochironomus ' Cryptochironomus ' Endochironomus ' Pseudochironomus ' Simulium ' Palpomyia ' Dilophus ' Eristalis ' Limnophora '* .Gastropoda includid the following typs ; *Viviparus ' Pleurocera ' Lymnaea* .Pelecypoda included the following typs ;*Musculm ' Anodontoids Dreissensia '* .Last , the study showed that the lake is Oligotrophic as indicated by its morphometric measurements and types and densities of macroinvertebrate recored.			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of Education Ibn-alhaitham			
Department	Biology			
Full Name as written in Passport	Mazin Nawaf AL-Ani			
e-mail				
Career	◌ Assistant Lecturer	◌ Lecturer	● Assistant Professor	◌ Professor
	◌ Master		● PhD	
Thesis Title	BIOSYSTEMATIC STUDY IN THE GENUS SOLANUM SECTION OLIGANTHES			
Year	1991			

أنموذج (أ) الخاص برسالى الماجستير **و** اطاريح **الدكتوراة (اخر** شهادة **)**

Abstract

Taxonomically, section Oliganthes is one of the most complicated sections in Solanum subgenus Leptostemonum, containing about 30 species. Most Oliganthes species are endemic to East and South Africa, with others in southern Asia. Relatively few taxonomic studies have included this section, and those mostly using herbarium specimens only. Within section Oliganthes, species identification is a major problem and confusion between species is common, such as between S. anguivi and S. violaceum or between S. tomentosum and S. coccineum.

The main objective of the present study was to investigate the relationships between species within this section, and also between them and some members of section Melongena and other sections of Solanum. Several different methods have been employed to assess the relationships of these species within section Oliganthes, and some allied taxa. Altogether about 115 accessions of 50 species have been investigated by one or more of the following methods: numerical taxonomy, herbarium morphology, seed spermoderm scanning electron microscopy, seed protein and isozyme electrophoresis and crossability and hybrid fertility.

Numerical taxonomy showed that S. platacanthum grouped with diverse accessions of S. anguivi, and S. burchellii and S. capense grouped with S. coccineum, but S. pyracanthos was distinct.

The seed spermoderm study showed that species belonging to other sections of Solanum, such as sections Torva, Solanum, Ischyracanthum, Monodolichopus, Nycterium and Anisantherum have very distinctive spermoderm characters. Several different spermoderm patterns were found within section Melongena, some showing similarity to species in section Oliganthes, such as S. melongena to S. anguivi. Within section Oliganthes, diversity was found between species, and several taxonomic groups were recognised. Some of these species have very distinct spermoderm features. S. pyracanthos showed more similarity to S. cinereum of section Melongena than to other Oliganthes members. S. virginianum showed high similarity to S. aculeastrum of section Melongena. S. albicaule and S. gracilipes were similar, but although they belong to section Oliganthes they did not show any similarity to any other members of this section. S. zanzibarense and five other species grouped together forming a uniform group.

Seed protein electrophoresis showed that S. anguivi had high similarity to S. aethiopicum, and S. coccineum showed differences between the white- and purple-flowered accessions. S. pyracanthos showed more similarity to members of section Torva than to Oliganthes species.

Isozyme study of ACO and PGD showed variation both between and within species, such as S. anguivi, S. violaceum and S. coccineum, and many hybrids combined the allozymes of both parents.

Crossability, measured by fruit set and the percentage of normal seed, and hybrid fertility, measured by the percentage of pollen stainability, were used as estimates of relationships between Oliganthes species. Some crosses produced high percentages of seed normality (70-100%) and pollen stainability (60-100%), such as between accessions of S. coccineum, S. capense x S. tomentosum, or S. anguivi x S. platacanthum. Others gave low seed normality (0-40%) and pollen stainability (0-50%), such as S. violaceum x S. capense, S. coccineum x S. violaceum, and S. violaceum x S. giftbergense, but many gave high seed normality but low pollen stainability, indicating that breakdown of meiosis generally precedes embryo-endosperm incongruity as a barrier separating species during evolution. In general greater hybridisation was possible between African species than with S. violaceum from India, and crosses with S. pyracanthos from Madagascar produced no normal seed. In contrast, crosses between S. melongena (section Melongena) and S. anguivi, S. coccineum and S. violaceum (section Oliganthes) all produced good seed, and semi-fertile hybrids. Such interspecific and even intersectional hybrids, might occur naturally and allow reticulate evolution, producing the present confusing taxonomic situation.

Altogether the results from these studies showed remarkably strong relationships between some members of section Oliganthes and section Melongena, such as S. anguivi and S. melongena respectively. Various levels of relationship were found between Oliganthes species. According to these relationships some species of section Oliganthes should be re-arranged or excluded from section Oliganthes, such as S. pyracanthos and S. virginianum.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	**college of Education / Ibn AL- Haitham , University of Baghdad**			
Department	**biology**			
Full Name as written in Passport	**MUAZAZ AZEEZ HASAN**			
e-mail	**Lubni_a75@yahoo.com**			
Career	Assistant Lecturer	Lecturer	Assistant Professor	Professor
	Master	PhD		
Thesis Title	The effect of concentrates and days of spray for some growth regulators and Glycyrrhiza excreting on wheat (*Triticum aestivum* L.*)*			
Year	**1997**			
Abstract	A biological experiment was conducted at the Biological garden of dep. Of Biology , collage of Education (Eban-Al-Haitham) Baghdad university , during season of 2006-2007 , to the aim of the experiment to determined the effect of concentrates and number of spray for some growth regulators and liquorices (***Glycyrrhiza glabra* l.**) excreting on bread wheat IPA 99 and reflected that on yield and yield component . Sowing grain at **15/11/2006** in a randomized completed block design with two replicates and trial was carried out by using split–split plot design , and the area of bloke was (**1.50 m^2**) the number of sprays occupied the main plots (The first spray carried out after **two weeks** later from seedling date and the secondary after **45 days** later from seedling date too) , while growth regulators and liquorices excreting were in the sub plots (The control , Spray of **GA_3** in concentrates **100** and **200 mg/L** , Spray of liquarice in concentrates **50** and **100%** , Spray of **Cultar** in concentrates **1000** and **2000 ppm)** and the concentrates were occupied the sub-sub plot (without spray , first concentrates second concentrates) . Fertilizer was applied for an experiment with the rates of **400 Kg urea /ha** in equal four doses and **100 Kg P2O5/ ha** (Sowing , Three complete leaves appearance , Two nodes on steam appearance and in booting). The growth characters were studying to the plant before the harvesting and contain: A- Growth characters (Plant high (cm), Flag leaf area (cm^2) Spike length (cm), Number of tillers/m^2, Chlorophyll contain in leaves			

(mg/gm fresh weight).

B- Grain characters (Plant high (cm), Flag leaf area (cm^2) Spike length (cm), Number of tillers/m^2, Number of spikelet's/spike, Chlorophyll contain in leaves (mg/gm fresh weight).

Plants were harvesting at **20th may 2007** and field measurement was done from each unit to study the effect of treatment for some field characters as fellows

C-Yield and yield component (Number of spikes/ m^2 Number of spikelet's/spike, Number of grain/spike, Weight of 1000 grain (gm), Grain yield (tan/ha), Biological harvest (tan/ha) and Harvest index (%).

The important results can summarize as follows:

1- Treatment the spray of excreting liquorices lead to significant increase in grain yield (**4.99 tan/ha**) compared with control treatment (**3.70 tan/ha**), also dominated on Cultar treatment with increase percent **(0.58%)** , belong that to dominated excreting liquorices treatment for all treatment in studied (Number of spikes / m^2 Number of grains /spike and Weight of 1000 grain gm), the excreting liquorices treatment gave the highest value in grain growth (54.97 mg/gm) and a highest value in grain growth weekly rate about (**6.00** mg/gm/week) .

2- The excreting liquorices treatment dominated in Number of tillers/m^2 (**412.17/ m^2**)**,** gave a highest contain Chlorophyll rate (**36.35 mg/gm),** Length of spike (**12.08 cm)** , Number of spikelet's/spike (**22.97)** and highest weight of 1000 grain **(33.71 gm) .**

3- The excreting liquorices treatment gave the highest value for harvest index (**61.08%),** while the treatments of Cultar gave the value (**49.18%)** respectively. The treatment of liquorices gave a highest biological yield (**8.30 tan/ha**), while the Gibberellin treatment gave a lowest biological yield (**6.36** tan/ha).

4- The second concentrate was dominate on the first concentrate for must of all treatments in Plant high **81.33 cm** , Number of tillers

354.63/m^2, Flag leaf area **45.48 cm**^{2}, Chlorophyll contain **26.51 mg/gm fresh weight** , Number of spike / m^2 **287.13/m^2** , Weight of 1000 grain **32.46/gm** , Grain yield **4.24 tan/ha** , and Harvest index **59.01 %** .

5- The first number of spray was dominate on second number of spray for some characters studied therefore the early hormones spraying gave significant results more than later spraying them.

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	N. S. Mahdi			
e-mail				
Career	○ Assistant Lecturer	○ Lecturer	● Assistant Professor	○ Professor
	○ Master		● PhD	
Thesis Title	Effect of *Melia azedarach* and *Azadirachta induca* on the biological performance of *Anopheles pulcherrimus* (Diptera: Culicidae			
Year	2001			
Abstract	The efficacy of water and organic (petroleum ether and alcoholic) extracts of Sibahbah *Melia azedarach* L. and Neem *Azadiracta indica* fruits were investigated on the biological performance of Anopheline mosquitoes *Anopheles pulcherrimus* under lab condition, eggs , larval instars, pupae and adults were exposed to serial concentration of water and organic extract of both plant fruits. The results showed that there was a significant reduction in egg hatching percentages at higher concentration of water and petroleum ether extract.			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	College of Education - Ibn AlHaitham -			
Department	Biology			
Full Name as written in Passport	Naheda Gazi Alwan			
e-mail	/			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	● Master	◌ PhD		
Thesis Title	The calligraphy and phonemics of AlHamza in Arabic			
Year	1995			
Abstract	Been, and still the problem of the hamza in Arabic, whether in terms of sound or spelling, and this is what made some of them it is a thousand characters, and one was this message looking at the characteristics of the hamza which differ from the qualities of a thousand in terms of the director and to speak out and whisper, and other qualities of voice as she looked at the way the representation of the hamza in Arabic, written rules and types, as it took to read the readers and painted in the Koran and the hamza is really the characters as launched by Dr. Tariq Al-Janabi			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College of education / Ibn Alhaitham

Biology

Nahla Jassim Mohammad

Drnahlaalshahery

	○ Lecturer	● Assistant Profe
		● PhD

Embryo Production And Transfer In Rat

1994

F BAGHDAD

DUCTION
R IN RAT

SIS
EGE OF SCIENCE
TY OF BAGHDAD
LLMENT OF THE
R THE DEGREE
PHILOSOPHY
PRODUCTIVE
OGY

SHAHER

1994

Summary : Adult females albino rat embryos were used as a model for human embryo transfer. The embryos (Eight-cell , morula and blastocyst) were obtained from donor animals following superovulation and mating with fertile males.The females were sacrificed at various times for embryo recovery. The embryos were examined morphologically and biochemically (typan blue test) and then were transferred into left and right uterine hornes of recipient females. The recipient females were mated with vasectomized males to induced pseudo-pregnancy for purpose of embryo transfer. The effect of exo-genous gonadotropin hormones administration on the implant-ation potentials of embryos was studied. For this purposes, four groups were designed as follows:

Group I : (Natural Donor X Natural Recipient = ND X NR),The donor females were untreated with exogenous gonadotropin hormones, and the Recipients were untreated (control group) .

Group 2 : (Stimulated Donor X Natural Recipient = SD X NR) The donor females were treated with exogenous gonadotropin hormones, and the recipients were untreated.

Group 3 : (Natural Donor X Stimulated Recipient = ND X SR) The donor females,were untreated with exogenous hormones , While the recipients were treated hormone.

Group 4 : (Stimulated Donors X Stimulated Recipients = SD X SR) Both donors were treated with exogenous hormones and then, the embryos were transferred into treated recipient females, and this group was identical to women in vitro fer-

<0.05) higher than the
crometer) .
otropin hormones indu-
e oocytes including
e's fusion also some
than one nucleus in

significantly increas-
g thickness compared
er). A significant incr-
ia was observed in tne
l group (627.12 vs 507.05
increase was obser-
kness in the treated
lar results were obta-
f uterine glands and

the mean life birth of
the control group
p (25%) .

indicate that the use
uction of ovarian super-
e a defect in egg matu-
e hormones also induced
ability and implantation
physiological studies

revealed abnormalities in eggs morphology. The effects of the gonadotropin hormones were more effective in the treated donor recipient group as compared to control group .

It was recommended from the result of the present study, that the use of natural eggs from normal cycle (without exogenous hormone treatment) followed by in vitro fertilization, embryo cryopreservation and embryo transfer may increase the rate of success in the IVF and embryo transfer program in future .

University of Baghdad

College Name	College of Education Ibn Al- Haitham			
Department	Biology			
Full Name as written in Passport	Nahlaa A. Al-Bakri			
e-mail				
Career	◌ Assistant Lecturer	Lecturer	◌ Assistant Professor	√ Professor
	◌ Master		√ PH.D	
Thesis Title	A study on " Neurulation " in Teleostean Fish embryo			
Year	1995			

Abstract

The neurulation in three species of teleostean fishes (Mirror carp , Cyprinus carpio L. ; Binni , Barbus sharpyii Gunther ; Zebra cichlid , Cichlasoma nigrofasiatum have been investigated .

The results of the present study revealed that the prospective neural plate starts to appear as exothermal thickening at the median region of the embryonic shield . It consist of several rows of neurodermic cells , in mirror carp embryo at 11 hr after fertilization and at 15 hr after fertilization in binni embryo . Later on three ectodermal thickening can be recognized in the prospective neural plate .

The present study also includes the preliminary investigation of the effects of foure types of drugs verapamil , Nifedipine , EDTA, Colchicine on neuraltion on bony fish . These drugs were used in 1 X 10^{-4} mol and show some effects on the shape of the ependymal cell , the arrangement of mantal layer cells and in the size of the marginal layer of both Telencephaolon and Myelencephalon .

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

	College of Education/ Ibn AL Haitham
ent	BiologyDept.
e n	Nasr Farhan Abdullah
	Nasr. Genetic@yahoo.com
	◌ Assistant Lecturer ◌ Lecturer ◌ Assistant Professor ○ Profess
	◌ Master ○ PhD
	Genetic Studies of Dermatoglyphic Variation in Man
	1978

ABSTRACT

This work comprised an intensive study of variation in dermatoglyphic features, at the several levels of local, regional, familial and clinical analysis, using prints from 2131 subjects.

Part 1 concerns a survey of local dermatoglyphic variation in Cumbria in the north-west of England. The results demonstrate the existence of local heterogeneity in frequency of digital pattern types and ridge counts, particularly pronounced in females; in the digital correlation matrices in both females and males; and in palms in some quantitative and qualitative features. The main variation between the regions occurs between north and south with some difference in the west coastal region, coincides with the evidence of monogenic characters, and supports the suggestion of genetic heterogeneity between north and south Cumbria. Additionally, there are significant sex and bimanual differences in many features.

In Part 2, a smaller regional survey carried out in Iraq shows significant digital and palmar differences suggesting a north-south gradient similar to that occurring in the ABO blood groups, while a tribal population is distinct from the others.

In family studies in Part 3, intrafamilial correlations and regression coefficients for the total and absolute ridge counts in normal British families indicate high heritabilities but some of the findings suggest a small dominance contribution. In the Iraq tribal data on the suppression of palmar triradii, c suppression appears to be monogenic, dominant, but with penetrance of only some 35%, and suppression of the t triradius is compatible with recessivity.

In Part 4, examining a problem in clinical genetics, dermatoglyphs of dermatitis herpetiformis patients appear to show reduction of ridge counts and patterns, sufficiently consistent to suggest a common developmental aberration of the phenotype, and the incorporation of a

genetic element in the etiology of the disease.

Overall, this study shows that dermatoglyphic variability has an important role in detecting local, regional and continental differences between populations; but that such variation is not necessarily consistent over all digital characters, nor from digital to palmar features, nor from one sex to the other. Optimal traits for revealing heterogeneity at local, regional, tribal and population levels are not necessarily the same. The important role of dermatoglyphics in population biology and in particular in genetic studies is extensively demonstrated.

University of Baghdad

College Name	Education Ibn-ALHaitham
Department	Biology
Full Name as written in Passport	NIBRAS LAFTA ABDULQADER
e-mail	Bio_nibrass67
Career	◌ Assistant Lecturer | Lecturer | ◌ Assistant Professor | ◌ Professor
	Master | ◌ PhD
Thesis Title	Effect of Mercury and Lead on Life- Cycle of *Cyclops vernalis* Fischer Copepoda ; Cyclopioda
Year	2001
Abstract	Summary The present study had been done to investigate and to show the effect of Hg and Pb on different biological aspect of crustacean animal *Cyclops vernalis* Fischer, olso to find how far could be used as a sensitive biological indicator for both metals used in the present study. The animals were exposed to two kinds of metal exposure, the acute and the chronic. Different concentration of Hg and Pb were prepared from their salts $HgCl_2$ And $Pb(NO_3)_2$ used in acute exposure treatments. Individuals of 24 hrs' age were exposed for 24 hrs'. in each concentration. The results showed that LC_{50} for Hg was 50.679 ppb and for Pb was 161.67ppb, which indicate that *C. vernalis* is more sensitive to Hg than to Pb, or Hg is more active and effective than Pb. The concentration of Hg and Pb used in chronic exposure treatment are as fallowes; Hg concentration (1,10,20,30and 40ppb). Pb concentration (50,75,100,120and 140ppb). The number of individuals used was 12 for the control treatment and for each exposure treatment. The results showed that both metals had mor obvious effects on the reproductive aspects of the animals than on the developments and the time required for transformation from stage to stage. The results showed that there no conspicuous effects Hg and Pb concentrations used on the average body length of the copepodid and adult stage. In the general there were decrease in average body length of males and females in the first three concentrations, however there was adverse effect of the highest concentrations, of each metal on the body length compared with the other

	concentrations used and control treatment. Both of Hg and Pb had high significant effect for prolongation period of time of nauplius instar 1 to reach copepodid 1. However there was transform from stage to stage or to reach adult stage. In contrast there was effect of highest concentration for both metals to reduce the period of time required for transformation. The Hg prolonged the period of time to reach maturity for males and females ($p<0.05$, $p<0.01$). All Pb concentration olso had conspicuous effect to prolong the period of time to reach maturity for males and females. Both of the metal used had effective effect of gradual decrease of the average longevity for both sexes compared to control treatment. There were gradual decrease of average clutch size, average number of produced eggs and number of clutch per females with increasing Hg concentration. The data showed statistical differences ($p<0.05$, $p<0.01$) between the control treatment and all the Hg concentration treatments. Pb had the same gradual effect, starting with conc. 75ppb on the average clutch size , average egg number and average clutch per female. The increasing Hg conc. Caused gradual prolongation ($p<0.05$, $p<0.01$) of average period of time required to produce the first clutch , first development and hatching. The conc. Of 20 and30ppb had the same effect on the average period of time between clutchs.Pb conc. Had the same effect as Hg on the time required to produce the first clutch, its development and hatching and average period of time between clutch. The effect showed by the last three concentrations. The present study showed both concerned metals obvious effects on the different biological aspect of *Cyclops vernalis* at the conc. Which including those were close to the permissible limits in the water system according to Iraqi criteria.

University of Baghdad

College Name	College of Education Ibn Al-Haithame
Department	Department of Biology
Full Name as written inPassport	Nidhal Nema Hussein
e-mail	Nidhal1956@yahoo.com
Career	◌ Assistant Lecturer ◌ Lecturer ● Assistant Professor ◌ Professor
	◌ Master ● PhD
Thesis Title	The homology of plastidial DNA, An approach to the phylogeny of palms
Year	1984
Abstract	Abstract The phylogeny of palms is studied by two techniques: hybridization of DNA/DNA anddigestion of plastidial DNA by restriction enzymes. Hybridization of DNA/DNA is used as a modern biological method in palm taxonomy. Chloroplast DNA hybridization is done among eight genera belonging to different subfamilies. A new formula is obtained by converting the degree of the DNA similarity to phylogenic distances. Through this formula we were able to formulate a three dimensional model, to show the relationship among the studied genera. Classical taxonomists advocate for the classification of Linnaeus Binomial Systematics which combines the genera Cocos and Elaeis into the subfamily Cocosoid, whereas, the genus Areca was placed in the sudfamilyArecoid. However, this study showed that the phylogenic distances between the above mentioned genera differ from those of the classical taxonomy. The degree of similarity obtained by DNA hybridization between Elaeis and Areca was greater than of Elaeis and Cocos, whereas that of Rapis and Phoenix genera was so small indicating that they belong to widely separated subfamilies .This is in disagreement with the belief and suggestion of most classical taxonomist . This study also revealed that 80% of the chloroplast DNA sequences for the genera of the familyPalmaceas had changed during their evolution course. These results strongly suggest that one should reconsider the precision of the classical taxonomy for important families. Our study indicate that it is difficult to draw a conclusion about the phylogenic distance from comparing electrophoretic profiles of different species of palms because the electrophoretic profiles of different species from different subfamilies and genera are diverse. The analysis of plastidial DNA of two reciprocal hybrids and their parents by restriction enzymes could be uniparental (maternal).

University of Baghdad

College Name	Eduction Ibn-AL-Haitham
Department	Biology
Full Name as written in Passport	Raad Kamil Shabeeb
e-mail	
Career	◌ Assistant Lecturer ◌ Lecturer ◌ Assistant Professor ◌ Professor
	◌ Master ◌ PhD
Thesis Title	SOME ASPECT OF THE BIOLOGY OF TOW FISH SPECIES Barbus luteus AND Barbus grypus FROM AL-HABBANIYA LAKE .
Year	1989
Abstract	The main aim of this work was to study some aspects of the biology of Barbus luteus and Barbus grypus in habbaniyaLake .from june 1988 to may 1989 monthly saemples of both species were taken from three stations atb the lake using arrange of gill nets and small meshed sweap nets.age , growth, lenth-weight relationship were studied as well as reproduction,food and feeding habits. The age structure of both species ,were determined from the scales and opercular.The age data showed that there were eight year classes for both species. The most rapid growth in lenth occured in the early of life,while the highest growth in weight noted in the oldest ages of both species The breeding seaeon of Barbus luteus *was* June-August .sexual maturity is reached by all fish above 15 cm in length . The high female to male ratio is probably due to the progressive decrease in the proportion of males in older age groups. Egg diametr varied between 1 and 1.5 mm .Analysis of the gut of both species were studied. The percentage of various food items in the gut of both species were varied markedly during different months of the year. The variations in the feeding activity seemed to be affected by the maturation of the gonad and the change in temperature.

University of Baghdad	
College Name	Education (Ibn Al-Haitham)
Department	Biology
Full Name as Written in Passport	Raad Mahmood Nsaif Al-Khafaji
e-mail	raadalkhafagee@yahoo.com
Career	○ Assistant Lecturer ● Lecturer ○ Assistant Professor ○ Professor
	○ Master ● PhD
Thesis Title	Effects of dust stroms on some Iraqi territories
Year	2009
Abstract	In the first part of the current study, the dust which transported by dust storms for the period from March 2007 through October 2008, were collected from the middle and south of Iraq . The study involved the data records for the climate elements regarding 44 meteorological stations. There is a remarkable increase in the number of regional dust storms that blowing in Iraq and Middle East regions doubled during 2008. In general it is obvious from the current study, that there is an decreased rainfalls and relative humidity rate, and an increased in the evaporation and temperature in period 1967-2007, this reflect regional climatic change. Wind speed as it measured by (m/s) was at its maximum degree during July and classified as medium wind and the least wind speed during December and classified as a calm wind, also that the wind direction was usually north western and a little towards west and north western / western and South East. The climate of Iraq located in two climatic regions depends on Koppen's climate classification; The Iraqi climate is within the dry climate (B). Accordingly the studied regions are classified to (BWh) for Baghdad, Ramadi, Kut, Diwaniya, and Basra regarded to the meteorological stations measurements, and as (BSh) for Mosul meteorological station measurements. The percentage of the sum mean annual days / year of suspended and rising dust days that cover the studied meteorological stations were determined, actually it is clear that there is an increase in the number of days with interval years. The average mean annual dust storms % is relatively in higher percentage regarding Ramadi city more than the other studied meteorological stations. The result of particle size analysis indicates that the texture of most samples were sandy clayey silt, the regional dust storm which carries the clay and silt with few quantities of sand. The result of roundness of quartz grain reflects that they were transported over different distances, (rounded, surrounded, sub angular and angular), which indicate there sources The heavy minerals didn't reflect clearly the sources of the regional dust

storms, but the stable heavy minerals analysis may reflect that the regional dust storms that blowing from the Iraqi West through the geological formation of the Iraqi western.

The desert land, different geological formations, Sabkha, irrigated land, agriculture land act as sources of clay minerals which are found transported with regional dust storms.

The studied pollens reflect a wet-moist climate as indicated by the pollen grains. Such result may give a good evidence of the regional dust storms which originated from far distance as it indicated through the pine pollens with sacs to keep the pollen float and carry it to great distances, e.g., North of Syria or Turkey or from countries nearer to our country which had the same climate. The allergens commonly associated with dust storms include fungal spores, plant and grass pollens, and organic detritus represent an agricultural area pollens grains.

The high concentrations regarding some trace elements like (Cd, Zn, Fe, and Pb) in Basra territory in comparison to other territories samples ; is probably due to what carried on by the Southern-Eastern regional dust storms which arrived Basra or the dust storms that came from the Arabian-Gulf through Kuwait. Nickel concentrations were elevated in Baghdad territory; which is exposed usually to Northern and Northern-Western dust storms; thus this trace element is transferred from the neighboring countries and from the Western regions of Iraq all of which are rich with this element in their rocks and sediments.

Noticeably that the taken samples from the middle territories, like Karbala, Najaf, and Hila are characterized with low levels of these trace elements; the reason beyond this is that these elements source is usually from the nature and not from the industrial origin as these areas are poorer with theses sources unlike other territories.

In the second part of the current work, the dust specimens which transferred by the dust storms that pass through the country for the same mentioned period, were analyzed microbiologically (pathogenic bacteria and non pathogenic bacteria, pathogenic and nonpathogenic fungi, pathogenic and non pathogenic viruses).

The study clarified that most of the isolated bacteria were *Bacillus* species, and then followed by enteric gram-negative bacilli and gram positive *Streptococci*, *Staphylococcus epidermidis*, and various gram negative enteric bacilli, regarding the isolated pathogenic fungi in the first line was *Aspergillus* species, secondly was *Candida albicans*, through the current work no pathogenic neither non pathogenic viruses were isolated.

Also the study revealed that most of the isolated microbes were in the period between last of spring and the beginning of

	summer and this was as a result to increased incidence of dust storms during this spectrum of time, beside this the dust pH analysis revealed that most of the specimens were alkaline.

أنموذج (أ) الخاص برسائل الماجستير و أطاريح الدكتوراه (أخر شهادة)

University of Baghdad

College Name	Education college of Ibn AL.Haitham			
Department	Biology			
Full Name as written in Passport	RAHAF WALL MAHMOOD			
e-mail				
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	● Master	◌ PhD		
Thesis Title	Effect of planting Dates and GA_3 concern trations on growth and Active Material of chamomilla (Matricaria chamomillal.) plants			
Year	2004			
Abstract	The Experiment was conducted during the fall off 2002-2003 at the botanical garden of Biology Ibn-AL.Haitham Department , Education college/Baghdad university to study the effect of two planting dates (23.10 and 6.11.2002) with different concentration of GA_3 (100 and 200ppm) on growth characters and the active material of two cultivars (local and caerman) of chamomilla (matricaria chamomillal.) plants .			

University of Baghdad				
College Name	***College of Education (Ibn Al- Haitham)***			
Department	**Biology**			
Full Name as written in Passport	**Rana Hannan Kudier Al- Rubie'ey**			
e-mail	**www.ranahanan999@yahoo.com**			
Career	**Assistant Lecturer**			
	Master			
Thesis Title	**The Influence of Administration of Garlic Extract on the Reproductive Function in Immature Male Mice Until Puberty**			
Year	**2011**			

Abstract

Summary

The aim of the present study was to investigate the compact of cold and hot garlic aqueous extracts on the reproductive organs functions of immature male mice, and to evaluate its roles in the induction of puberty, as well as to investigate the chronic administration of garlic aqueous extracts since immature until peripubertal and pubertal periods in the reproductive organs function (testes, epididymedes and seminal vesicle), sperm parameters and serum hormones level (T, FSH, LH). Immature male mice (25 days old) (n=50) were used and randomly divided into two main groups (1 and 2). Group 1 was administrated with cold aqueous extract of garlic, while group 2 was administrated with hot aqueous extract of garlic.

Mice in groups 1 and 2 were gavaged with (0.1ml) of single dose (250mg/kgm.b.w./day). Each group was further subdivided at random to 5 groups (n= 5), and administrated with one kind of aqueous extracts for 1, 2, 3, 4, and 5 weeks respectively. Another groups containing 5 animals were used as the control, and received only drinking water daily. Animals were scarified after 24 hours from last treatment.

The results of the present study showed that there was no significant difference ($p > 0.05$) in the reproductive organs weight, the number of germ cells, Sertoli cells, Leydig cells, and the percentage of diameter and damaged seminiferous tubules. As well as , there was no significant difference ($p > 0.05$) in the structure of epididymedes, seminal vesicles and the serum hormones level, at the end of 1 and 2 weeks of administration with both cold and hot aqueous extracts. While there was significant reduction ($p < 0.05$) in the all studied parameters,in addition histopathological changes observed in the testes, epididymedes and seminal vesicles at the end of 3, 4 and 5 weeks of treatment with both aqueous extracts compared to control. The treatment with both aqueous extracts resulted in significant increase ($p < 0.05$) in the sperm activity (grade D) and the LH serum levels.

It is concluded that the chronic administration of both garlic aqueous extracts induced a huge damage in the structure and functions of reproductive organs.

University of Baghdad

College Name	**College of Education (Ibn AL-Haitham)**			
Department	**Department of Biology**			
Full Name as written in Passport	**Dr. Rana Mujahid Abdullah Alshwaikh**			
e-mail				
Career	◌ Assistant Lecturer	◌ Lecturer	● Assistant Professor	◌ Professor
	◌ Master		● PhD	
Thesis Title	**Production and Characterization of Protease from *Pseudomonas aeruginosa* Isolated from Some Clinical Cases and its Relation with some Antibiotic Agents.**			
Year	**2007**			

Abstract

One-hundred and seventy swab samples were collected from different cases including (35) wound and (47) burn infection , (25) otitis media and (63) samples from urinary tract infections from Al-Kadhymia Teaching Hospital in Baghdad city . The study period was from 1-5-2005 to 1-8-2005 .

❋Fifty isolates of *Pseudomonas aeruginosa* were identified using different microscopical , cultural characteristics and biochemical tests . Final identification of bacteria were performed by using api20E system. The isolates were 8(16%) from burn infections , 20(40%) isolates from urinary tract infections , 16(32%) isolates from burn infections and 6(12%) isolates from otitis media .

❋The sensitivity of *Pseudomonas aeruginosa* isolates was been tested against (20) antibiotics showed isolates version resistance with different percentage against antibiotics .*Pseudomonas aeruginosa* exhibited (100%) resistance to Ampicillin , Amoxycillin , Amoxycillin / clavulanic acid, cloxacillin and cefazolin .While percentages of resistance to cefixime , carbencillin, cefotaxime and ceftazidime were (98%) ,(84%) ,(80%) and (78%) respectively .Resistance percentages to Gentamicin ,Tobramycin , Piperacillin , Norfloxacillin , Amikacin and Ciprofloxacine were (52%),(26%),(24%),(16%),(14%)and(4%) respectively. All isolates of *Pseudomonas aeruginosa* were highly sensitive (100%) to Aztronam , imipenem , cefepime , P-ofloxacin and ofloxacin .

❋Minimum inhibitory concentrations of Amoxycillin , cefotaxime , ceftazidime and piperacillin showed higher percentage of resistance . While resistance to aminoglycoside antibiotics including Tobramycin was (4-128) µ g / ml , Gentamicin was (4-256) µ g / ml and Amikacin was (4-128) µ g / ml . On the other hand , all bacterial isolates were susceptible (100%) to Ciprofloxacine and Cefepime .

❋Combinations of Ciprofloxacine with Gentamicin , ceftazidime and piperacillin gave

	interesting results against the local bacterial isolates in reducing their MIC values . **Tobramycin and ceftazidime gave an obvious decrease in MIC values after combination of these drugs and used against *Pseudomonas aeruginosa* .** **❋A (86%) of the isolates of *Pseudomonas aeruginosa* have ability to produce protease enzyme .** **❋Enzyme activity was affected by some antibiotics . This activity was reduced with increasing the concentrations of these antibiotics .** **❋The optimum conditions for protease production were in LB medium with a pH (8) after (48) hrs of incubation at (35) C .** **❋Purification of the protease was done using ion exchange chromatography DEAE-cellulose and gel filtration with sephadex G-100 .** **❋Molecular weight of the purified protease was measured by sephadex G-100 and it was found to be around (21379) Dalton . The optimum temperature of enzyme activity was (35) C . However , the pH (8) was for activity and stability of this enzyme .** **❋Zn^{++} and Ca^{++} ions may play a role in the enhancement and stability of the enzyme . Enzyme activity was not inhibited in the presence of reducing agent such as Cysteine , but it was inhibited in the presence of EDTA .** **❋*Pseudomonas aeruginosa* purified enzyme shows a high activity when combined with Vancomycin and cefazoline and used for the treatment of the eye infection in rabbits caused by *Staphylococcus aureus* .**

University of Baghdad

College Name	**College of Education (Ibn AL-Haitham)**			
Department	**Department of Biology**			
Full Name as written in Passport	**Dr. Rana Mujahid Abdullah Alshwaikh**			
e-mail				
Career	◌ Assistant Lecturer	◌ Lecturer	● Assistant Professor	◌ Professor
	◌ Master		● PhD	
Thesis Title	**Production and Characterization of Protease from *Pseudomonas aeruginosa* Isolated from Some Clinical Cases and its Relation with some Antibiotic Agents.**			
Year	**2007**			

Abstract

One-hundred and seventy swab samples were collected from different cases including (35) wound and (47) burn infection , (25) otitis media and (63) samples from urinary tract infections from Al-Kadhymia Teaching Hospital in Baghdad city . The study period was from 1-5-2005 to 1-8-2005 .

❋Fifty isolates of *Pseudomonas aeruginosa* were identified using different microscopical , cultural characteristics and biochemical tests . Final identification of bacteria were performed by using api20E system. The isolates were 8(16%) from burn infections , 20(40%) isolates from urinary tract infections , 16(32%) isolates from burn infections and 6(12%) isolates from otitis media .

❋The sensitivity of *Pseudomonas aeruginosa* isolates was been tested against (20) antibiotics showed isolates version resistance with different percentage against antibiotics .*Pseudomonas aeruginosa* exhibited (100%) resistance to Ampicillin , Amoxycillin , Amoxycillin / clavulanic acid, cloxacillin and cefazolin .While percentages of resistance to cefixime , carbencillin, cefotaxime and ceftazidime were (98%) ,(84%) ,(80%) and (78%) respectively .Resistance percentages to Gentamicin ,Tobramycin , Piperacillin , Norfloxacillin , Amikacin and Ciprofloxacine were (52%),(26%),(24%),(16%),(14%)and(4%) respectively. All isolates of *Pseudomonas aeruginosa* were highly sensitive (100%) to Aztronam , imipenem , cefepime , P-ofloxacin and ofloxacin .

❋Minimum inhibitory concentrations of Amoxycillin , cefotaxime , ceftazidime and piperacillin showed higher percentage of resistance . While resistance to aminoglycoside antibiotics including Tobramycin was (4-128) µ g / ml , Gentamicin was (4-256) µ g / ml and Amikacin was (4-128) µ g / ml . On the other hand , all bacterial isolates were susceptible (100%) to Ciprofloxacine and Cefepime .

❋Combinations of Ciprofloxacine with Gentamicin , ceftazidime and piperacillin gave

	interesting results against the local bacterial isolates in reducing their MIC values . **Tobramycin and ceftazidime gave an obvious decrease in MIC values after combination of these drugs and used against *Pseudomonas aeruginosa* .** **❋A (86%) of the isolates of *Pseudomonas aeruginosa* have ability to produce protease enzyme .** **❋Enzyme activity was affected by some antibiotics . This activity was reduced with increasing the concentrations of these antibiotics .** **❋The optimum conditions for protease production were in LB medium with a pH (8) after (48) hrs of incubation at (35) C .** **❋Purification of the protease was done using ion exchange chromatography DEAE-cellulose and gel filtration with sephadex G-100 .** **❋Molecular weight of the purified protease was measured by sephadex G-100 and it was found to be around (21379) Dalton . The optimum temperature of enzyme activity was (35) C . However , the pH (8) was for activity and stability of this enzyme .** **❋Zn^{++} and Ca^{++} ions may play a role in the enhancement and stability of the enzyme . Enzyme activity was not inhibited in the presence of reducing agent such as Cysteine , but it was inhibited in the presence of EDTA .** **❋*Pseudomonas aeruginosa* purified enzyme shows a high activity when combined with Vancomycin and cefazoline and used for the treatment of the eye infection in rabbits caused by *Staphylococcus aureus* .**

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of Education – Ibn Al-Haitham			
Department	Biology			
Full Name as written in Passport	Rana Saheb Shalal			
e-mail	Ranassady76@yahoo.com			
Career	◌ Assistant Lecturer	(E) Lecturer	◌ Assistant Professor	◌ Professor
	(E) Master		◌ PhD	
Thesis Title	Description of a new species of acanthocephala (*Neoechinorhynchus iraqensis*) and some ecological aspects of its infection to the mugilid fish *Liza abu* from Al Anbar province with observations on the experimental infection.			
Year	2000			

Abstract	For a period of 13 monthes starting fom actober 1998 till October 1999, a total of 931 specimens of the mugilled fish *Liza abu* (Heckel) were collected from the Euphrates river near Al- Faluja Barrage, Al-Anbar province. Previously many Iraqi investigators had reported the infection of 14 freshwater fishes from different regions of Iraq with an acanthocephalan species, similar in many morphological features to *Neoechinorhynchus agilis* (Rudolphi). However *N. agilis* is known to infect only marine fishes. Due to the presence of some morphological differences as well as diffrences in measurement between the presently – recorded acanthocephalan found *L. abu* and the previously – reported *N. agilis* in the Iraqi literature , the present specimens now represent a new speciec which is given the name *N. iraqensis* and hence is reported for the first time in the world. No any significant difference were noted in percentage incidence and mean intensity of infection of both male and female *L. abu* with *N. iraqensis* . Generally percentage incidence and mean intensity of infection were high during winter and spring months. Both incidence and intensity declined during summer and reached lower values during autumn. The overall percentage incidence of infection of both fish sexes was 39.8% and the mean intensity was 3.9. As a general, the highest percentage incidence of infection was among the smaller fish length group (less than 130 mm and 130-139mm). The larger fish length group showed a gradual decrease in percentage incidence and mean intensity of infection. However in the largest fish length group (more than 179mm), the infection had increased. Eggs of *N. iraqensis* were stored in tap water river water and normal saline. Some of such eggs were stored in room temperature while the other were stored in the refrigerator. Eggs stored in tap and river waters at room temperature were viable for seven months but those stored in normal saline at room temperature were viable for five months. On the other hand, eggs stored at the refrigerator in both tap and river waters were viable for eight months while a viability of six months were recorded for those stored in normal saline. No significant differences were noted for viability of eggs stored in room temperature and in the refrigerator. A total of 13 crustacean species were used as intermediate host for

	the experimental life cycle of *N. iraqensis*. These included one copepod *Cyclops vernalis*, one peracarid *Mysis* sp., one amphipod *Parhyla* sp., tow cladocerans *Daphnia magna* and *Simocephalus vetulus* and eight ostracods *Stenocypris malcolmsoni*, *Potamocypris varieqata*, *Cyprinotus putei*, *C. salinus*, *Cyclocypris cruiata*, *Candona siqmoides*, *Cypricercus reticulates* and *Eucypris cisternina*. None of such crustaceans was an appropriate intermediate host in the life cycle. In the present study, eggs hatching and morphology were also described. Eggs hatching started within 10 minutes after their consumption by the experimental intermediate hosts. The elongated embryo has numerous spines at its anterior end and exhibited a laterally directed movement.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Ibn alhaitham			
Department	Biology			
Full Name as written in Passport	RASHAA FAIQ ABDULATTIF			
e-mail	no			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	● Master	◌ PhD		
Thesis Title	STUDAY OF THE MECHANISM OF TSH ON ITS RECEPTORS IN THE THYROID GLAND			
Year	2003			
Abstract	The study had been carried an blood samples beside thyroid tissue sample and it included measuring of the concentration of TSH total protin anti\anti TSH and testing of The research included studying asample taking from 25 patient and inclkdedtypes of thyroid gland tumors which are adenoma ,nodular qoiter ,toxic qoiter and hypothyroidism which represent bengin and papillary carcinoma as a malignant tumors Anti-anti TSHbinding in thyroid tissue homogenate .			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	IbnAL-Haitham			
Department	Biology			
Full Name as written inPassport	RAWAA JAFAAR HA MEED			
e-mail	rawaajafaar@yhoocom.			
Career	◌ Assistant Lecturer	◉ Lecturer	◌ AssistantProfessor	◌ Professor
	◉ aster	F◌D		
Thesis Title	Taxonomic study of some species Leafhopper SubFamily;Deltocephalina In cent ral of Iraq			
Year	1999			
Abstract	This research includes taxonomic study of nine species of leafhopper belong to eigh t genera of the subfamilyDeltocephalinae.thespecine s were collected From different districts of central Iraq.It has been found that six of those Spcies were de scribed to the sciens of entomology foer the first time acording tothe know ledge of researcher.these species are: *Balcluthakaisy* sp.nov. *Balcluthamentha* sp.nov .*Diplocolenusrassouli* sp.nov. .*Psamotettixviridis* sp. nov. *Errastunus mesopotamicus* sp.nov. *Aconeurella webbi* sp. nov.			

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	Saadi Mohammad Mahmood			
e-mail	Saadi56m@yahoo.com			
Career	◌ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master		◌ PhD	
Thesis Title	Mechanical and electrical activity of rat ileum in relation to calcium transport. An analysis with "calcium active" drugs			
Year	1990			
Abstract	In the last two decades much experimental work has focused on the role of calcium in several vital cellular processes. As a result, there is now a vast amount of evidence obtained from a variety of tissues to support the theory that calcium somehow acts a link in excitation-concentration coupling and this could be altered by pharmacological agents. The present investigation attempts to present a coherent picture concerning the mechanical and electrical activity of rat ileal smooth muscle in relation to calcium movement using drugs that interfere with calcium transport. This has involved the use of number of techniques including the measurement of membrane potential changes of isolated preparations during the application of these agents; mechanical recording; calcium influx and efflux in whole muscle and the accumulation of calcium by microsomal fractions. These techniques reaveled many phenomena. Calcium antagonists caused dose-dependent relaxation of KCl-induced and Ach-induced contracture and abolished spontaneous activity. The calcium ionophore A23187 potentiated spontaneous mechanical activity and increased action potential amplitude in this preparation. Use of sodium-free saline and the sodium ionophore monensin studies has shown that sodium ions are involved in calcium regulation of rat ileal smooth muscle. Sodium-free saline caused contracture, while accumulation of intracellular			

	sodium by monensin affected both electrical and mechanical activity. Concentration ranging 10^{-8} -10^{-5} M of adenosine caused excitatory action on both KCl and Ach responses. This result is consistent with results obtained from ^{45}Ca influx studies on whole muscle. However these compounds have no immediate effect on ^{45}Ca efflux. The present results demonstrate that rat ileal smooth muscles show acute dependence on extracellular calcium for maintaining electrical and mechanical activity. It is suggested therefore, that the inhibitory effect of calcium antagonists results from the blockade of calcium influx and increase of calcium efflux especially by lanthanum and manganes

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Collage of education \Ibn Alhaytham			
Department	Biology			
Full Name as written in Passport	Sabah Faraj Abdulahad Bassat			
e-mail	Noori_fadi@yahoo.com			
Career	◌ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	● Professor
	◌ Master		● PhD	
Thesis Title	Studies on the Physiological Ecology and Behaviour of Acanthocyclops bicuspidatus (Claus) from the English Lake District			
Year	1989			
Abstract	The distribution and abundance of cyclopoid copepods were studied over the years 1987/1988 in a eutrophic lake esthwaite water in the English lake district. Cyclopoid species disappeared from the deep sites during the summer stratification . The numbers of cyclopoids were low,among them Acanthocyclops bicuspidatus (Claus) suffered a dramatic decline in its number compared to prvious studies .			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of Education Ibn AL- Haitham			
Department	Biology			
Full Name as written in Passport	Sabah Saied Humadi			
e-mail				
Career	√ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	√ Master	◌ PhD		
Thesis Title	Effect of different media and planting dates on growth , flowering and formation of Iris and daffodils bulbs			
Year	1983			
Abstract				

University of Baghdad

College Name	College of Education Ibn AL- Haitham			
Department	Biology			
Full Name as written in Passport	Sabah Saied Humadi			
e-mail				
Career	√ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	√ Master	◌ PhD		
Thesis Title	Effect of different media and planting dates on growth , flowering and formation of Iris and daffodils bulbs			
Year	1983			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	IBN AL-HAITHAM			
Department	BIOLOGY			
Full Name as written in Passport	SADDAM HUSSEIN JBER AL-HAIDARI			
e-mail	**saddamalhaidari@ymail.com**			
Career	◌ Assistant Lecturer	◌ Lecturer	● Assistant Professor	◌ Professor
	◌ Master		● PhD	
Thesis Title	**IMMUNOLOGICAL AND MICROBIOLOGICAL STUDY OF ASTHMA AND ALLERGIC RHINITIS PATIENTS PRE AND POST IMMUNOTHERAPY**			
Year	2007			

Abstract

Summary

The latest medical reports showed increase in the prevalence of allergic diseases particularly, asthma and allergic rhinitis all over the world; relevant studies emphasize the importance of the immunotherapy in diminishing the brunt of such diseases and prevent their escalating.

The current study was conducted in order to detect immunological and microbial changes, accompanying cases of asthma and allergic rhinitis, and the impact of immunotherapy in reducing those changes. The study included 375 atopic volunteers (220 asthmatic, 155 allergic rhinitis patients) in both sexes, as well as 66 apparently healthy people adopted as a control group their age ranged from 5-50 years. The data concerning the levels of total serum IgE which are measured by the enzyme linked immunosorbant assay (ELISA) technique showed a significant

difference in the level of total serum IgE in asthmatic and in allergic rhinitis patients ($P < 0.001$) with a median = 530 IU/ml and 289 IU/ml respectively, compared to 67 IU/ml in the control group.

The skin prick test results using 12 types of allergen extracts demonstrated that the highest proportion in positive skin reactions have been registered towards the allergens house dust mite = HDM, mould mixtures = MM1, bermoda grass = G2, in the percentage 84.9%, 7608% and 66.36% in asthmatic patients and the allergens HDM, G2 and *Chenopodium album* = W10 in the percentage 74.8%, 72.2% and 67% in allergic rhinitis patients respectively, in contrast to the measurements of serum specific IgE antibodies levels showed that it's highest levels were recorded for the D1, M3, G2 allergens in asthmatic patients and for D1, G2, W10 in allergic rhinitis patients.

Depending on these facts the immunotherapy was initiated by using the allergen extracts D1, M3, G2 for 150 asthmatic patients and 120 allergic rhinitis patients , following 3 months of such a treatment a 34.6% and 36.5% of those patents respectively, experienced a non significant reduction in the levels of total serum IgE , from 640 IU/ml–606.5 IU/ml. And from 357.5 IU/ml–333 IU/ml, and after spending 6 months in treatment , the total serum IgE diminished significantly to 500 IU/ml in asthmatic patients and to 269.5 IU/ml in allergic rhinitis patients ($P=0.0091$ and $P=0.0015$) . For both groups respectively. And further decrease was established after 12 months of treatment with median = 335.5 IU/ml and 159 IU/ml with highly significant difference ($P< 0.001$)

for both.

For the proportion of 50% of asthmatic and 61.6% of allergic rhinitis patients showing response only after 6 months of treatment, the median for total serum IgE reaching 530 IU/ml and 289.5 IU/ml with a significant difference (P= 0.006 and P< 0.001) respectively. And after spending 12 months in the treatment their mean was 459 IU/ml and 179 IU/ml with highly significant difference (P< 0.001). It was clear that the proportion of 15.3% asthmatic patients and 7.8 % of allergic rhinitis patients not responding even after 12 months of treatment.

The asthmatic and allergic rhinitis patients express a reduction in the skin reactivity after immunotherapy , the severity of the skin reactions declined significantly (p<0.001) by using HDM extract in both sets of patients , in comparison with their responses prior to treatment , also a significant decline in these reactions (P=0.002 and p=0.0364) by using MM1 extract . While uneven decline in their responses (P=0.0981 and P< 0. 001 detected by using G2 extract.

It is obvious from the results of the statistical analysis that there is a significant positive linear correlation between levels of total serum IgE and levels of serum specific IgE antibodies following immunological treatments of asthmatic patients for D1, M3, G2 allergen (r=0.72, 0.66, 0.70 and p= 0.002, 0.028, 0.001) respectively , and for allergic rhinitis patients(r= 0.87, 0.46,0.44 and p= 0.001, 0.017, 0.011) respectively , at the same time there was no such correlation between them before proceeding with immunotherapy.

Other results showed significant elevations in the serum levels of immunoglobulin IgG, IgA and C3 complement part in asthmatic and allergic rhinitis patients, after 6 and 12 months following immunotherapy compared to its previous levels. No significant changes in the serum levels of IgM and C4 were detected.

During this study the levels of interleukin 4 and interleukin 10 levels in blood samples were estimated, there was a significant rise ($P<0.001$) in levels of IL-4 in asthmatic patients (45.67 pg/ml) and allergic rhinitis patients (44.78 pg/ml) compared with the natural control group 1.62 pg/ml. After a immunotherapy treatment a decreased levels of IL-4 in the serum of those patients were recorded (20.13 pg/ml and 10.22 pg/ml) respectively. It was documented a significant positive linear correlation between changes in the levels of total serum IgE and changes in the level of IL4 following the immunotherapy ($r=0.381$, $p=0.015$ and $r= 0.536$ and $p= 0. 001$). IL-10 level has shown a significant rising in the serum of asthmatic patients (22.26 pg/ml) and allergic rhinitis patients (27.02 pg/ml) after subjection to immunotherapy compared with their levels prior to treatment (4.21P pg/ml) and (4.56 pg/ml) respectively. There had been a significant negative linear correlation between levels of IL-4 and IL-10 following immunotherapy in asthmatic and allergic rhinitis patients ($r=0.30$, $p<0.001$and $r=0.56$,$p<0.001$).

Other documented effects of immunotherapy are significant decrease ($p<0.001$), in the level of eosinophils in the blood of patients following 6 months of treatment, in addition to the

improvement in the pulmonary function test of asthmatic patients after 12 months of subjection to immunotherapy.

To shade light on the role of bacterial infection in the exacerbation of asthmatic symptoms, a sputum culture was done for 66 asthmatic patients through which 6 types of bacteria were isolated and the most frequent one was *Strepto. pnumonia* (37.8%), followed by *Staph. aureus* (25.7%) and *M. cattarrhalis* (13.6%), then *Strepto. Pyogenase*, *H. influenza* and *Staph. epidermidis* in proportion (10.6%), (9.09 %) and (6.06%) for each of them . most of them are highly sensitive to the antibiotics : Ciprofloxacin, Norfloxacine and Augmentin, where most of them are resistant to the antibiotics Ampicillin , Cloxacillin, Gentamycin and Lincomycin.

Fungal infection is known as an exacerbating factor for allergic diseases especially asthma, it was focused on such relation ship between existence of fungus and occurrence of such disease, the results showed that the fungal species *Aspergillus*, *Penicillium*, *Alternaria* and *Cladosporium* are the most frequent fungi in asthmatic patients, and in a proportion of 61.3%, 52.7%, 46.3%, 31.8% respectively.

It was shown that the use of Caffein and Theiophyllin have an inhibitory effects against the growth of the isolated fungi in asthmatic patients, and in a different proportion depending on their concentrations. The inhibitory percentage was 100% by using the concentration of 2mg /ml of caffeine and 2,5mg /ml of theophyline against most of the isolated species except *Fusarium*, *Alternaria* and *Rhizopus*, which required a concentration

	of 2.5mg /ml of caffeine and 3mg /ml of theophyllin to reach this level of inhibition .

University of Baghdad

College Name	College of education (Abn Al-haytham)
Department	Biology
Full Name as written in Passport	Salima saleh mahdi Al_bayati
e-mail	Om salim55@yahoo.com
Career	◌ Assistant Lecturer ◌ Lecturer ◉ Assistant Professor ◌ Professor
	◉ Master ◌ PhD
Thesis Title	Effect of Alchohols on the activity of Erythromycin against pseudomonas aeruginosa and Staphylococcus aureus
Year	1988
Abstract	The effect of various aliphatic alcohols and erythromycin on to strains of Pseudomonas aeruginosa representing the Gram-negative bacteria and Staphyiococcus aureus representing the Gram_positive one was assessed by determination of the minimum inhibitory concentration and by determination of the time required to sterilize the inocula of these organisms in solutions of the alcohols. The reaults obtained ranked the alcohols in order of effect as amyl>butyl>propyl>ethyl>methyl. The MIC of erythromycin against Ps.aeruginosa reached 1000mcg\ml compared with 50mcg\ml against Staph.aureus, on the other hand ,the antibiotic in concentration as high as 2000mcg\ml couldn't kill 1.1*10^7 cell/ml of Ps.aeruginosa but needed only 900mcg/ml to kill 1.18*10 cell/ml staph .aureus . The effect of combinations of the various alcohol and the antibiotic alone was evaluated using the formation techniques . alcohol were found to enhence the activity of erythromycin against both organism .The enhancement effect of these alcohol ranked them in the same as they were used

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of Ibn_AL_Haithm			
Department	Biology			
Full Name as written in Passport	Salma Khamo Francis AL_Sheikh			
e-mail	Salma.khamo@yahoo.com			
Career	◌ Assistant Lecturer	◌ Lecturer +	◌ Assistant Professor	◌ Professor
	◌ Master		◌ PhD +	
Thesis Title	The Relationship between Cytokines. HLA_DQB1 Genotyping and Urinary Tract Infection in some Autoimmune Diseases			
Year	2012			

Abstract

Summary

The present study was designed to evaluate the causal relationship between systemic immunity, cytokine serum levels and urinary tract infection (UTI) in rheumatoid arthritis (RA), ankylosing spondylitis (AS) and systemic lupus erythematosus (SLE). The cytokine profile included T helper ($_H$) 1 (IL-2 and TNF-α), T_H2 (IL-4 and IL-13), T_H17 (IL-17A) and T-regulatory ($_{reg}$; IL-10) cytokines. The immunogenetic predisposition was also evaluated through molecular typing (AutoLipa PCR method) of HLA-DQB1 alleles.

The study was carried out on 151 Iraqi Arab autoimmunity patients who were referred to the Consultant Clinic at the Department of Rheumatology, Baghdad Teaching Hospital during the period September 2009 - December 2010 for diagnosis and

treatment. After a clinical examination and laboratory evaluations, the consultant made the diagnosis and in which the patients were categorized into three clinical groups, which were RA (98 cases), AS (33 cases) and SLE (20 cases). Their age means ± S.E. were 40.1 ± 1.4, 39.9 ± 2.3 and 27.9 ± 1.6 years, respectively. For the purpose of comparisons, 45 apparently healthy controls (31.9 ± 1.5 years) of blood donors matched patients for ethnicity were also enrolled.

The study reached the following results:

1. Out of 151 systemic autoimmunity patients, 23.8% were observed to have UTI, and such frequency was almost approximated in RA, AS and SLE (23.5, 27.3 and 20.0%, respectively), but these frequencies were higher than the recorded frequency in controls (11.1%). Two pathogens were encountered as a cause of UTI in the investigated cases, and they were *E. coli* and *Proteus spp*. In total autoimmunity, *E. coli* was present as a single causative pathogen in 10.6% of patients, while the corresponding percentage frequency for *Proteus spp* was 8.6%. Additionally, 4.6% of patients showed mixed infection of *E. coli* and *Proteus spp*. Such differences were significant ($P < 0.05$). The corresponding frequencies in controls were 8.9, 0.0 and 2.2%, respectively. When these frequencies were inspected in RA (10.2, 8.2 and 5.1%, respectively), AS (15.2, 6.1 and 6.1%, respectively) and SLE (5.0, 15.0 and 0.0%, respectively) patients, they also demonstrated a significant variation ($P < 0.01$) between patients of autoimmunity clinical

subgroups.

2. The serum level of the six investigated cytokines showed different distributions in systemic autoimmunity patients (total or clinical subgroups) and controls, and such differences were subjected to the concerned cytokine, the group investigated or the complication of UTI. Four cytokines (IL-2, TNF-α, IL-4 and IL-13) were more concerned in these deviations, while IL-10 and IL-17A serum levels came approximated in patients and controls, irrespective of type of disease or UTI association.
3. The cytokine profile in systemic autoimmunity patients was also further investigated in terms of ratios between interleukins of T_H1, T_H2, T_H17 and T_{reg} cells. The general picture was observed with the dominance of T_H1 cytokines over T_H2, T_H17 and T_{reg} cytokines when the comparisons was made between systemic autoimmunity patients (RA, AS and SLE) and controls, while for T_H2 cytokines, only ratios involved IL-13 but not IL-4 were dominant over T_H17 and T_{reg} cytokines, whereas there was no dominance between T_H17 and T_{reg} cytokines.
4. For HLA-DQB1 alleles, there was no allele that could be considered as a predisposing factor in total autoimmunity patients, but a protection view was associated with DQB1*01, especially of we consider a protective fraction (PF) value of 0.42 for this allele. Such protective manner was almost clear in AS patients (PF = 0.61) and SLE patients (none of the patients had this allele while its frequency in controls was 65.0%). The

DQB1*01 has two splits, which are DQB1*05 and DQB1*6, and inspecting frequencies of this allele in three clinical groups of systemic autoimmunity revealed different distributions. HLA-DQB1*06 was significantly increased in RA patients (73.3 *vs*. 45.0%; etiological fraction; EF = 0.52), and such increase was more pronounced in UTI-ve RA patients (81.8 *vs*. 33.3%; relative risk; RR = 9.00; EF = 0.73), as compared with controls, and the difference was also significant after correction (Pc = 0.02). In contrast, this allele was not detected in AS or SLE patients irrespective of the UTI status. However, AS (60.0 *vs*. 30%) and SLE (65.0 *vs*. 30%) patients shared the theme of an increased frequency of the allele DQB1*03 (RR = 3.50 and 4.33; EF = 0.45 and 0.50, respectively) as compared with controls.

5. The HLA-DQB1 alleles were also assessed for their impact on the level of the investigated cytokines; and in this regard only two alleles were considered, which were DQB1*03 and DQB1*06. In RA patients only IL-2 showed a significant increased in patients positive for the allele as compared with patients negative for the allele HLA-DQB1*06 (26.6 *vs*. 17.8 pg/ml), and the same outcome was observed in AS patients but with the allele DQB1*03 (30.6 *vs*. 14.3 pg/ml). In SLE patients, IL-4 (15.5 *vs*. 9.6 pg/ml) rather than IL-2 was similarly affected by DQB1*03, as well as, TNF-α (108.5 *vs*. 95.2 pg/ml), but the latter cytokine showed the opposite picture in controls (89.9 *vs*. 97.0 pg/ml).

أنموذج (أ) الخاص برسائل الماجستير **و** اطاريح **الدكتوراة (اخر** شهادة)

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of Education (Ibn Al Haitham) . University of Baghdad			
Department	Biology			
Full Name as written in Passport	SAMIRA MUAYAD YASEEN			
e-mail	samirka_66@yahoo.com			
Career	⁄ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	⁄ Master	◌ PhD		
Thesis Title	**DETERMINATION OF MS SALTS LEVELS FOR OPTIMIZATION THE INITIATION OF PRIMARY BUDS UNDER LEAFLET OF DATE PALM *Phoenix dactylifera L. in vitro***			
Year	**2008**			

Abstract

Summary

This study was carried out in the laboratories of the Department of Biology of the College of Education Ibn Al-Haithum, University of Baghdad, during the year 2006-2007. Date palm (*Phoenix dactylifera* L.) offshoots of the variety Zuhdi were used. The aims of this investigation were as follows: -

1- To study the initiation of primary auxillary buds under leaflet. Also, to study the fresh weight increasing of samples having 3 mm diameter which taken from the heart of three-years old offshoot grown in MS culture medium by using the following concentrations: 25%, 50%, 75%, 100% and 125% from the strength of the macronutrient elements, micronutrient elements and iron chelate of MS medium. Samples which grown at 50% of macronutrient showed best results when the concentrations of micronutrients and iron chelate are 50% and 100% respectively.

2- To study of the browning phenomenon by freezing prior to culturing at temperature -18 ºC for 30 days instead of using ; antioxidant solution (150 mg/L citric acid and 100 mg/L ascorbic acid) and also using the P.V.P., and adsorption factor (activated charcoal). The freezing factor alone was more effective in controling the browning phenomenon than the other factor.

3- To study effect of activated charcoal on the adsorption of growth regulators was achieved by culturing the samples on culture media which devoided of activated charcoal. The optimum concentration for the initiation of primary buds in comparsion with the concentrations of growth regulators in media containing activated charcoal was also studied. The results showed that the most favorable concentrations are 1, 1, and 1 mg/L for the auxins NAA, NOA, IAA, respectively, and 0.1 mg/l for the cytokinin 2,ip, when the samples were cultured on culture media devoided of activated charcoal.

أنموذج (أ) الخاص برسائل الماجستير **و** اطاريح **الدكتوراة (اخر** شهادة **)**

Abstract	

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	College of Education ib n al haitham			
Department	Biology			
Full Name as written in Passport	Sawsan Mohammed Abdullah Surjee			
e-mail	sawsan_surgee@yahoo.com			
Career	◌ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master		◌ PhD	
Thesis Title	**Causative Agents of Diarrhoea in Erbil Children and the Effect of Some Plant Extracts on Bacterial Isolates**			
Year	2009			

Abstract

Five hundred samples of stool were collected from patients with diarrhea (infants and children under ten years of age) admitted to the Pediatric and Maternity Hospital in Erbil City from March 2007 to September 2007. The samples were cultured on different culture media and according to the colony morphology, biochemical reactions and by the use of API 20E system, 35 (7%) *E.coli* I, 8 (1.6%) *E.coli* II, 17 (3.4%) *E.coli* III, 22 (4.4%) *E.coli* IV, 8 (1.6%) *Shigella dysenteriae*, 16 (3.2%) *Salmonella arizonae*, 12 (2.4%) *Salmonella typhi* and 6 (1.2%) *Vibrio cholerae*. In addition, cases of *Entamoeba histolytica* 175 (35%), *Giardia lamblia* 102 (20.4%) and *Hymenolepis nana* 2 (2.4%) were identified. No infectious agents were found in 75 (15%) of the samples. 22 (4.4%) of the samples had mixed infections.

The sensitivity of the bacterial isolates to different antibiotics was performed. There was a variation in the resistance of the isolates ranging from 2-100% whereas other isolates were sensitive.

Most cases of diarrhea were in children less than 3 years of age and the males (64%) had more infection rates than the females (35.8%). Children from urban (77%) areas had higher infection rates than those coming from rural (23%) areas. Children who were bottle fed (31.4%) had higher infection rates than those who were breast fed (17.6%) or those with mixed feeding (16.6%). The most frequent signs and symptoms in diarrhea patients included fever, abdominal pain, vomiting and tenesmus. RBC's and WBC's were found in stool samples.

The MIC, MBC and inhibition zones for five plants (*Quercus infectoria* (Nutgalls), *Prosopis facta* (pods), *Juglans regia* (leaves and exocarp of fruit) and *Prunus armeniaca* (leaves)) were determined for *E.coli* I, *E.coli* II, *E.coli* III, *E.coli* IV, *Shigella dysenteriae*, *Salmonella arizonae*, *Salmonella typhi* and *Vibrio cholerae*. The chemical composition of these extracts was determined.

The determination of the site of genes responsible for the antibiotic resistance in *E.coli* O157:H7 was performed using the genetic transformation method for *E.coli* DH5α laboratory strain with the DNA that is absent from the highly resistant strains, *E.coli* O157:H7 4 and *E.coli* O157:H7 6. The transformation process succeeded when using the plasmid DNA

for strain 4 and failed when using strain 6. It was evident that the genes responsible for resistance to the following antibiotics were located on the plasmid DNA: amoxicillin, amoxiclav, ampicillin, cephalexine, cefixime, cefotaxime, doxycyclin, gentamycin, nalidixic acid, nitrofurantoin, rifampicin, streptomycin and tetracycline. Whereas the genes responsible for the following antibiotic resistance were located on the chromosome: amikacin, erythromycin, chloramphenicol, ciprofloxacin, tobramycin and trimethoprim.

To reduce or remove these genes that are responsible for antibiotic resistance, the aqueous and ethanolic extracts of *Q.infectoria* were used, and by SMIC determination, the results revealed that it had a reducing effect (curing) on these genes. These results indicate that this plant's extracts were highly efficient in reducing the *E.coli* O157:H7 antibiotic resistance and this was proved using gel electrophoresis.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College OF Education Ibn AL-Haitham			
Department	Biology			
Full Name as written in Passport	SHAYMAA SABAH MEHDI			
e-mail				
Career	√ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	≤√ Master	◌ PhD		
Thesis Title	The Effect of Some Crude Plant Extracts on the Cell Division			
Year	2004			

Abstract

Abstract

Different concentration of crude aqueous extracts for ten Species of plants, which are : *Allium sativum; Allium cepa; Nigella sativa; Peganum harmala, Rhus coriaria; Nerium oleander; Euphorbia helioscopia; Euphorbia tirucalli; Cyperus rotundus* and *Scilla bifolia,*were used to study their effect on the mechanisim of cellular division at the root tips of onion. The test was held during three periods of processing 2, 4, 6, hours respectively, then three of them were chosen to examin their effect in seazing Lymphocyte cell's division in the human peripheral blood.

The mitotic index, in all onion root cells treated with crude extracts used in this study , decreased in comparision with untreated root cells. The percentage of decrease differed in accordance with the difference of the used extract and its concentration. It was Found that treatements with various concentrations of *Nigella sativa; Allium sativum; Euphorbia tirucalli* and *Peganum harmala* have led to the decrease of the mitotic index to more than %50. Some extracts such as *Allium cepa; Cyperus rotundus; Scilla bifolia* have led to capture % 50 of the cells at the metaphase stage. Other extracts, Such as *Nigella sative;* Leaf and steam of *Euphorbia helioscopia; Rhus coriaria; Nerium oleander,* were able to decrease the percentage of division as well as capturing

	the cells at the metaphase. The least mitotic index was recorded in the treatment with % 35 of *Nigella sativa* extract for six hours. No divided cells were seen during treatment with some concentration of *Euphorbia helioscopia; Nerium oleander; Peganum harmala* and *Euphobia tirucalli* extracts. The increase of concentration for stem of *Euphorbia helioscopia* and *Euphorbia tirucalli* extracts did not lead to adecrease in the mitotic index in a percentage more than in a low concentration. It was noticed that, the increase in the mitotic index has been affected by the accumulation of cells in a particular phase of division Particularly in the treatment of *Scilla bifolia* extract. Moreover, the extractes caused a deviation in the division clue from the control. Other cases of chromosome abnormalities were seen, such as stickiness in the metaphase and Telophase; bridges and Lagging chromosomes in the Anaphase and telophase. Few cases of membrane protrusion and fusion of some cells, the chromosomes breakage, disorientation of the spindle, unequal distribution of chromosome between the poles, defromed unclei and change in their positions. Human Lymphocyte cells were treated with *Rhus coriaria* extract %12.5, %25, *Allium sativum* %25, %50 and *Scilla bifolia* %5, %10 and studied in comparision with colcemide treated cells. The percentage of metaphase cells has been increased in using the two concentration of *Scilla bifolia* extract, and in 0.2 ml of *Rhus coriaria* extracts, but when *Allium sativum* extract was used, the percentage was less than those mentioned above. Although, the treatment of onion roots with *Allium sativum* extract did not lead to the capture metaphase.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Education- IbnAlhaitham/ University of Baghdad.			
Department	Biology .			
Full Name as written inPassport	Shermean Abdulla Abd-Alrahman .			
e-mail	_____			
Career	◌ Assistant Lecturer	◌ Lecturer	◉ AssistantProfessor	◌ Professor
	◌ Master	◌ PhD +		
Thesis Title	Astudy of the anatomy and histology of the brain of Anasplatyrhynchos L.			
Year	1999			
Abstract	Aspecial anatomy of the brain of the domesticated duck species Anasplatyrhnchos L. was studied taking into consideration the morphology , structure and ultrastructure aspects .A dult male samples at different periods were collected , all samples were killed by slaughter , the head was dissected and getting the b rain carefully . Morphological aspect of this study included macroexaminations of brain topography innervation and head vascular system using intracardiac injection techniques with overdose radiopaque dye (conray 480) then examined by X ray photography . Histological and cellular aspects included all brain subdivisions , two fixatives used (10% formalin) and formalin ammonium bromid , then different special staining methods were used . The ultrastructures aspects of the brain glands (pineal , pituitary) and parts of the cerebellum were studied with aid of the(TEM) . Morphological aspects revealed that the head was supplied by three arterial groups and was drained by jugular vein which had two major tributaries There are two meninges surrounded the brain (the dura mater and the pia mater). The brain was divided into three major divsions :prosencephalon , mesencephalon and rhombencephlon . The paired olfactory lobes had median shaped bodies , there sizes corresponds the well developed sense of smell . The two cerebral hemisphere form the most conspicuous parts of the brain , its surface was a convex , smooth and lacking to sylvius . The cortex was divided into three regions namely : the limbic cortex . The corpus striatum consisted of two great areas . The hyperstriatum was typically marked in mallard by its thickening . The pineal gland had a follicular structure , it contain numerous solid follicle tubules and vascular spaces . TEM studies demonstrated the characteristic innervation and the numerous dense cored vesicles in relation to pinealocyte . The lobulated pituitary gland had anterior and posterior lobes without pars intermedia . TEM revealed the well developed innervation beneath ependymal . The optic lobes was well developed . The cerebellum was lobulated and well developed . The medulla oblongata had large tubular structure form .			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

1	

University of Baghdad

College Name	IBN AL-HAITHUM			
Department	BIOLOGY			
Full Name as written in Passport	SHLAIR ABDULRAZZAQ SADEQ			
e-mail	SHELIAR_IQS81@YAHOO.COM			
Career	Assistant Lecturer	Lecturer	Assistant Professor	Professor
	Master		PhD	
Thesis Title				
Year	2008			

Abstract

ABSTRACT

The present study included the effects of acute and chronic salinity as NaCl on some biological aspects of the crustacean *Acanthocyclops bicuspidatus* (Claus) which belong to Class Copepoda, Order Cyclopoida. This group of zooplankton considered as indirect and direct food for fish. The purpose of the study is focusing on how the salinity affect the life of this group.

The increasing salinity in Iraqi waters, which became worser in Al-Razzaza lake resulted in decline the species diversity of fish to just one species in the lake. We thing that this phenomenon may be caused by decreasing the population density and species diversity of zooplankton which act as a food for fish under the effect of high salinity.

The results showed that LC50 values for males were 3.80‰, 2.75‰ and 2.29‰ for 24, 48,72 hrs. exposure respectively while LC50 value for females were 2.51‰, 2.23‰ and 1.77‰ for the same time of exposure.

The lethal concentration (LC100) value was 5‰ for males and 4‰ for females for 24 hrs. exposure. on other hand the safe concentration (LC0) was 1‰ for both males and females.

The concentrations of salinity (NaCl) used for chronic exposure of animals were 0.1‰, 0.5‰, 1‰, 1.5‰, 2‰ and control (0‰). Ten individuals of adult males and females within 24 hrs. developing to this stage were used for each treatment.

The study showed that salinity lowered the longevity of males and females. The lowest mean of females longevity was 5.1 days at the conc. 2‰ compared with longevity mean 30.1days at the control treatment. The lowest mean of male longevity was 6.8 days at 2‰ NaCl conc. compared with 34.2 days at control treatment. On the other hand the longevity of treatment females (produced and non produced) was lower than that of produced females alone.

The average growth of males was lower than that of females, however the lowest average growth for males and females were 0.33 mm and 0.36 mm respectively at the conc. 2‰ salinity.

The number of molts decreased gradually with increasing salinity

	concentration, it reached 1.16 molt/female at 1.5‰, no molts were tacken place at 2‰ compared with 4.9 molt/female at control treatment. The mean number of molts in males reached 5.7 molt/male at control treatment and decreased with increasing concentrations to reach 1 molt/male at the conc. 2‰. The time intervals for molts in males and females were increased with icreasing salinity concentrations. The data showed negative effect of salinity on the whole reproductive activities of females, as the number of nauplii per clutch decreased in salinity concentrations treatment used compared with control treatment. At the same time the numder of nauplii per female also decreased with increasing salinity concentrations obviousouly in the concentration 1‰, 1.5‰ and 2‰. The increasing of salinity concentrations was coincidenced with gradually decreasing in number of clutch per female. The decreasing was obvious in the concentrations 1‰ and 1.5‰ while the conc. 2‰ inhibited clutches production by females. On the other hand the time intervals for egg sacs appearance, the time needed for eggs to develope into youngs and the time intervals between clutches were increased with increasing salt concentrations. The data showed decreasing the percentage for produced clutches by females with increasing salinity concentrations. The highest percentage was 100% in the control treatment and 0.1‰ salinity. The lowest percentage was 20% at 2‰. The present study showed that the parameters of reproduction, longevity and growth were negatively affected by increasing salinity concentration. This show that salinity has negative effect on the biological aspects of *A. bicuspidatus*.

University of Baghdad

College Name	Ibn Al-Haitham
Department	Biology
Full Name as written in Passport	Israa kasem saleh Al-Aubaidi
e-mail	Israa.kasem@yahoo.com.
Career	◌ Assistant Lecturer ● Lecturer ◌ Assistant Professor ◌ Professor
	◌ Master ● PhD
Thesis Title	Effect of some plant extracts on growth and viability of cutaneous and visceral leishmanial parasites *in vitro* and *in vivo*
Year	2007

Abstract

SUMMARY

Smears, bone marrow aspirates and sera were obtained from 25 suspected patients with visceral leishmaniasis (VL) and 25 cutaneous leishmaniasis (CL). Bone marrow cultures were positive in 40% of VL cases, while the serological test was positive in 76% of cases. Parasites were demonstrated in 80% of CL smears against 44% of positive cultures.

The causative organisms in Iraqi patients with leishmaniasis were identified according to the electrophoretic variations of glucose phosphate isomerase (GPI), glucose-6-phosphate dehydrogenase (G6PDH), malic enzyme (ME), malate dehydrogenase (MDH) and hexokinase (HK) enzymes. A total of 63.6% CL isolates were found to be more similar to *Leishmania major* reference strain, while 36.4% were rather similar to *L. tropica* reference starin. In VL isolates, 90% were

	similar to the Mediterranean reference starin (*L. donovani infantum*), while 10% were similar to the Ethiopian reference stain (*L. donovani donovani*). **Part of the present study was designed to investigate the antileishmanial activity of the aqueous extracts of two plants: the roots of licorice (*Glycyrrhiza glabra*) and the leaves of periwinkle (*Catharanthus roseus*) both *in vitro* and *in vivo*. Both plants were found to have direct *in vitro* leishmanicidal action. The promastigote form was found to be more resistance than the axenic amastigote form. The biochemical interaction of these two plants on the two forms of *Leishmania* spp. enzymes of carbohydrate metabolism: HK, GPI, fructophosphokinase (FPK), G6PDH, 6-phosphogluconate dehydrogenase (6PGDH), succinate dehydrogenase (SDH), MDH, ME as well as some virulent enzymes: protease and acid phosphatase (ACP) were studied. *G. glabra* and *C. roseus* aqueous extracts were found to have an inhibitory action on all studied enzymes.** **The antileishmanial activity of the aqueous extracts of *G. glabra* and *C. roseus* were studied, *in vivo*, through the intarperitoneal injection of infected BALB/c mice with different concentrations of *G. glabra* or *C. roseus*. The dose of 15 mg/ml (2 doses/ 2 weeks) *G. glabra* against leishmanial parasites showed significant suppression in parasitic load in spleen, smaller-sized lesions and reduced splenic weight and length. Significant decrease in the activity of liver enzymes: alkaline phosphatase (ALP), lactate dehydrogenase (LDH),**

	glutamic-pyruvic transamianse (GPT) and glutamic oxaloactic transamianse (GOT) as well as adenosine deaminase (ADA) in sera of treated infected mice was noticed. Some pathological changes were noticed in the liver (minimal diffused vacuolated hepatocytes, fatty degeneration, cloudy swelling and narrowing sinusoids) and spleen (extramedullary hemopoiesis and immature polymorphic nucleated leucocytes in red pulp). *C. roseus*, on the other hand, was less affective than *G. glabra* and failed to complete reduction of the parasite load in the spleen. The enzymatic levels were still high in treated mice. It caused severe damage to the liver (fatty changes, increased number of Kupffer cells with narrowing sinusoids) and spleen (depletion of white pulp lymphoid tissue, poor lymphoid follicle and neutrophilic infiltration). **The possible immunomodulating action of *G. glabra* and *C. roseus* was evaluated. Immunomodulation with *G. glabra* was more affective in comparison with the treatment experiment. High significant decrease in the parasitic load with parallel decrease in splenic weight and length were noticed. Also, the lesions were not apparent. The enzymatic activity was also decreased. In addition, slight histopathological changes were noticed. However, immunomodulation with *C. roseus* showed slight reduction in the mean number of parasitic burdens and caused many histopathological changes in liver (thrombosed blood vessel atherosclerosis and hepatocyte necrosis) and spleen (lymphocytic necrosis and depletion of lymphoid follicle). Such observations indicated that *C. roseus* proved to be a bad antileishmanial agent in comparison with *G. glabra* especially *in vivo*.**

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	Ibn Al-Haithem			
Department	Biology/ Microbiology			
Full Name as written in Passport	Suaad Khalil Ibrahim			
e-mail				
Career	◌ Assistant Lecturer	☑ Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master		☑ PhD	
Thesis Title	Comparative Study of the Effect of Some Plants Extract and Carboxylic Acids on Contaminating Bacteria in Burns Infection			
Year	2009			

Abstract

- Five hundreds swabs were collected from patients suffered from burns in three hospitals of Baghdad city, for the period from 1st June 2006 to 1st November 2007. The swabs were implanted in order to be isolated and diagnosed by morphological and biochemical tests.
- The results showed that 489 swabs were contaminated with bacteria (97.8%), while 11 swabs were not (2.2%). The identification and prevalence of the bacteria was as follow *Pseudomonas aeruginosa* was found in 148 swabs (30.27%), *Klebsiella pneumoniae* in 102 (20.26%), *Staphylococcus aureus* in 79 (16.16%), *Escherichia coli* in 70 (14.31%), *Proteus mirabilis* in 52 (10.63%) and *Enterobacter cloacae* in 38 (7.77%).
- Information card for each patient was assigned included age, sex, time of suffering from burns, social status and address.
- The degrees of suffering were as follow:
- First degree of burns, 201 cases (40.2%).
- Second degree, 187 cases (37.4%).
- Third degree, 112 cases (22.4).

Sensivity test to antibiotic and was done for all the isolated bacteria, and it was found, that, they were sensitive to Vancomycin, Ciprofloxacin, Amikacin, Tetracyclin and Fusidic acid within the percentage ratio of 0.0, 59.1, 3.7, 58.5 and 11.6%, respectively. Also it was found that the investigated bacteria showed high Vesistance to Penicillin G (87.9%), Erythromycin (93.9%), Trimethoprim (100%), Carbencillin (83.9), Cefotaxime (63.4%), Ampicillin (75.9%), Gentamycin (67.9%), Streptomycin (83.6%), Nalidix acid (89.4%) and Linomycin (83.2%).

- Searching for the active compounds in the extracts of investigated plants (*Linum usitatissimum, Nigella sativa* and *Eruca sativa*) *was conducted*. It was found, that, the seeds of the three plants contained

Glycosides, Alkalis, Flavonoids, Soapiness and Resins, which are not water soluble, but could be detected by the alcoholic extraction. Cumarin was noticed in the seeds of *N. sativa* and *E. sativa* only.

- Different concentrations of water and alcohol extracts were prepared in addition to the isolation of oils, soapiness and Flavonids. The effectiveness of the extracts was tested at the concentration of 16, 32, 64, 128, 256 mg/ml for all the plants, against the bacteria.
- The Phenol, water and alcohol extracts of *L. usitatissimum* and *E. sativa* showed high effect against the bacterial species, while that of *N. sativa* was less affective.
- The Minimum inhibition concentration (MIC), was found to be different according to the type of extract and the species of bacteria.
- The effects of the organic acids (Acetic, Citric, and Lactic) were tested at concentrations of 0.5, 1, 1.5, 2, 3 and 4% of each acid. An increase in the diameter of inhibition area, related with the increase in the acid concentrations, was detected. It was found that the acetic acid was more affective against the microorganisms, followed by the Citric acid and then the Lactic acid.
- On the base of ratios of inhibition area diameters (*in vitro*), the results illustrated that *E. coli* was more affected by Acetic acid when the diameters reached 18.75, 21.75, 30.75, 38.25, 40.00 and 44.75 mm, respectively. The concentration of 1.5% was the effective enough against *E. coli* as diameters rates for *P. mirabilis* were 19.25, 18.25, 18.0, 22.56, 27.75 and 31.0 mm, respectively, followed by *Ps. aeruginosa*, *S. aurues* and *En. cloacae* when exposed to the optimum concentrations of Acetic, Citric, Lactic acids. The diameters at concentration of 4% were 23.50 and 23.66 mm.
- The water extracts from all the involved plants, in addition to the organic acids showed good levels of effectiveness against the different studied bacterial species, when suffered by burns rats were exposed to them. A clear decrease in bacteria numbers in these rats in comparison with non- treated animals, in the swabs removed from the treated and non- treated rats, in addition to the absence of any histophathalogical changes in livers and skins of the treated animals.
- Biochemical tests of serums from animals treated with the water extracts and organic acids at concentration of 16 mg/Kg and 18 mg/Kg for seven days and the microscope investigation, proved that these compounds were not toxic.
- The effects of the water extracts and the organic acids were studied too from the point of the immunity point of view. An increase in the Levels of IgG and IgA of the supplementary systems C_3 and C4 was noticed in the suffered from burns in general. The levels of IgG and IgA tended to be normal after the treatments with the water extract from the studied plants and with the organic acids.
- The L D_{50} of *N. sativa* and *E. sativa* was 18 mg/kg while it was 16 mg/Kg of *L. usitatissimum*.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	**College of education / Ibn Alhaitham**			
Department	**Biology department**			
Full Name as written in Passport	**Suha Dhia Abid Ali**			
e-mail	suhatwaij@yahoo.com			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	● Master	◌ PhD		
Thesis Title	**Effect Of Some Growing Media And Potassium Fertilizer On Growth Of Ranunculus asiaticus L.And Its Production**			
Year	**1999**			
Abstract	**This study was conducted in Horticulture Department, College of Agriculture, Baghdad University during 1998-1999 season. The effect of two concentrations of potassium fertilizer (0 , 4 %) and nine different organic waste (0, 200, 400, 800 cm3 per pot sheep manure; 0 , 200, 400, 800 cm3 per pot peatmoss; 0, 50, 100cm3 per pot sewage waste)were studied on growth and productivity of Ranunculus asiaticus L.** **The results could be summarized as follow :** **Potassium fertilizer (4%) significantly increased the number of leaves per plant, number of shoots per plant, mineral composition (NPK %) in leaves and roots, number of flowers per plant, diameter and length of flower stalk , weight and volume of tuberous root and prolonged flower vase life.** **The use of sheep manure (800 cm3 per pot), peatmoss (800 cm3 per pot), and sewage waste (100 cm3 per pot) significantly increased number of leaves per plant, mineral composition (NPK %) in leaves and roots, number of flowers per plant, diameter and length of flower stalk, weight and volume of tuberous root and prolonged flower vase life.** **The interaction between potassium fertilizer and organic waste was significant where the number of leaves per plant, mineral composition (NPK %) in leaves and roots, number of flowers per plant, diameter and stem length of flower stalk, weight and volume of tuberous root and prolonged flower vase life when 800 cm3 of either sheep manure or peatmoss and 4% of K were used**			

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	Suhair Azhar Mousa			
e-mail	suhairalkadimi@yahoo.com			
Career	○ Assistant	○ Lecturer	● Assistant Professor	○ Professor
	○ Master		● PhD	
Thesis Title	Biological treatment of industrial wastewater			
Year	1979			
Abstract	Much interest has been taken during the last decade in finding methods alternative to the usual treatment methods wastewater application on biological treatment is often acceptable alternative. In this thesis biological treatment for industrial wastewater from factories influent for organic content removal based upon the chemical oxygen demand (COD) and biochemical oxygen demand (BOD). Optimal COD removal percentages were found to be 90 to 96% for biological treatment, and applied influent COD and BOD concentration prediction methods the biological treatment removal percentage in terms of wastewater treatment and influent concentration were determined.			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	Education/Ibn Al-Haithum			
Department	Biology			
Full Name as written in Passport	Sundus J Yaseen			
e-mail	Sundus_aljanabi@yahoo.com			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master	● PhD		
Thesis Title	Dermatophytosis Mycological study			
Year	2006			
Abstract				

University of Baghdad

College Name	Education (Ibn Al-Haitham)
Department	Biology
Full Name as written in Passport	**Sundus M. Sahib**
e-mail	**Srgsf_ajam@yahoo.com**
Career	◌ **Assistant** ◌ ◌ **Assistant** ◌
	◌ **Master** ◌ **PhD**
Thesis Title	**Identification of tobacco leaves fungi and testing their ability for aflatoxin production**
Year	**1977**

Abstract

Much work has been done on the toxins produced by fungi especially those that can affect humanbeings and animals through contaminated food. Aflatoxins is considered as one of the most serious toxins produced by fungi, so this investigation was planned to study the occurrence of this toxin and the fungi producing it on tobacco leaves.

Green tobacco leaves, from two regions of Iraq (karblala and Sulaimania) were for cigaretes production. The work has been extended to include the imported tobacco from 5 countries as well.

Attempts have been made to isolate the fungi found on the leaf sample as well as those found inside the tissues. Fungi found on the leaf surface taken from Karbala were,*Alternaria, Aspergillus, Cladosporium, Ulocladium, Cochliobolus, Curvularia*, *Pencillium, Acremonium, Fusarium* and *Trichoderma*, while the endophytic fungi were: *Alternaria, Cladosporium, Curvularia, Cochliobolus* and *A. niger*.

The fungi isolated from leaf surface of the Solaimania were: *Cladosporium*, *Alternaria, Aspergillus, cochliobolus, Fusarium* and *Pencillium*, whereas the endophytic fungi at this region belonged to 5 genera, *Alternaria, Cladosporium*, *Cochliobolus, Aspergillus* and *Pencillium*.

This study revealed that sun-curing process can reduce the fungi

	associated with the leaves. There were only two genera of fungi isolated from stored tobacco, *Aspergillus* and *Pencillium. Aspergillas* was most common among local as well as imported tobacco and also during most processing stages. Handling, storage, packing and marketing played an important role in the occurrence of fungi and their persistence. The results of testing 600 fungi isolates for their ability to produce aflatoxins showed that *A. flavus* was the most capable species to produce B_1 and G_1 (86.6% of the isolates), the other fungi which proved their ability to produce aflatoxin were aflatoxin B_2 and G_2. The results also indicated the inability of *Cochliobolus* sp., *Sordaria superba, A. nigulosus, A. amstelodami, Fusarium* sp., *Cladosporium* sp., A. ruber, *A. fumigatus, A. sydowi and A. tamarii A. terreus* to aflatoxin. *A. flavus* produced higher amount of B_1 and G_1, 0.01 - 80 ug/2 gm B_1 and 40 - 63 ug/2 gm G_1 respectively. *A. flavus* was induced to produce aflatoxin B_1 and G_1 on tobacco under certain condition of relative humidity and temperature. The suitable relative humidity for toxin production by this fungus was 98%, higher amount was also produced at 25 C (100 ug/kg of tobacco B_1 and 66 ug/ kg of G_1).

University of Baghdad

College Name	***Collage of Education Ibn al_Haitham University of Baghdad***
Department	***biology department***
Full Name as written in Passport	**talal salim mahdi**
e-mail	talal81_iraq@yahoo.com

Career	● Assistant Lecturer	○ Lecturer	○ Assistant Professor	○ Professor
	● Master	○ PhD		

Thesis Title	**Evaluation of the activity of aqueous and alcoholic extract and essential oil of the leaves of *Eucalyptus incrassata* toward some biological properties of *Saprolegnia hypogyna* and *Saprolegnia ferax***
Year	**2011**

Abstract

In this study eight oomycetous fungi belonging to the family Saprolegniaceae were isolated, these included three species of the genus *Achlya* : *Achl. americana* , *Achl. klebsiana* , *Achl. proliferoides* , one species of each of the genera *Aphanomyces laevis* and *Dictyuchus sterile*, and three species of *Saprolegnia* (*S. anisospora* , *S. hypogyna* , *S. ferax*). The fungi were isolated from two different sites located on Tigris river (Al – Adhamiyah and Al – Jadiriyah Lake), in addition to the fish aquaria of Al – Zawra park and from the aquarium of the Department of Biology / College of Education Ibn Al _Haitham. Two species, *S. ferax* and *S. hypogyna* were chosen to evaluate their sensitivity toward the aqueous and alcoholic extract and the essential oil extracted from the dried leaves of *Eucalyptus incrassata*. The effect was studied on some biological parameters of the two fungi. The results showed the following:

1- The chemical analysis of the plant leaves using High Performance Liquid Chromatography (HPLC) technology showed that the leaves contained the following active compounds: 1,8-Cineole in a percentage of (34.24) % , Terpineol (2.30) %, Citronellal (16.10) %,Geranial (16.16) %, Phellendrene (6.83) % in addition to citric acid (24.33) %.

2- Treatment of both fungi with different concentrations of the aqueous extract of *Eucalyptus* leaves, by determining the radial growth on the solid medium, showed significant gradual reduction of colonies diameters with the increasing concentration Reaching the conc. (3.5) % which gave inhibition percentage (69) % for *S. ferax* compared to the conc. (2) % which caused complete inhibition of *S. hypogyna*. This result indicate higher sensitivity of *S. hypogyna* toward the aqueous extract compared to *S. ferax*. Similar results were also obtained when treating the fungi with different conc. of alcoholic extract, i.e. gradual reduction of growth with the increasing conc. Reaching (2) % which caused complete inhibition of both fungi. Therefore, the effect of the alcoholic extract was similar for both fungi. While treating the fungi with different conc. of the essential oil, gradual reduction of growth was also obvious, reaching conc. (0.1) % and (0.5) % which caused complete inhibition of growth of both fungi respectively. The fungus *S. hypogyna* also showed higher sensitivity toward essential oil compared to *S. ferax*.

3- Determining the effect of different conc. of the aqueous extract on the asexual and sexual organs production showed significant delay in production of Zoosporangia and oogonia with the increasing conc. Starting from (1-2) % for *S. ferax* with average delay of (4-7) days for both organs, while higher concs. caused inhibition of fungal growth in distilled water. Similar result was obtained for *S. hypogyna* starting with the concs. (0.5-2) % and average delay of (1-4) days for both organs and all concs. Inhibition of growth was found at conc. (2.5) %.

Alcoholic extract at conc. (0.5) % only caused delay of Zoosporangia and oogonia production for *S. ferax* for two days compared to the control. Where as for *S. hypogyna*, the conc. (0.5-1.5) % caused delay in production of Zoosporangia for (2-3) days and (1-3) days for oogonia for all concs. Higher conc. caused complete inhibition of growth. Treating the two fungi with essential oil showed also similar effect, the conc. of (0.05) % and (0.1) % caused reduction of Zoosporangia for a day and three days for both conc. respectively for *S. ferax*, and a delay in oogonia production for three days occurred at conc. (0.1) % only compared with the control. Where as for *S. hypogyna* the conc. (0.05) % and(0.1) % caused delay of Zoosporangia for a day and three days for both conc. respectively. Oogonia production delay started at conc. (0.02-0.1) % for (1-5) days for different concs.

4- Treatment of the encysted zoospores of both fungi with different concs. of both extracts and essential oil caused significant gradual reduction in percentage Zoospore germination, reaching the conc. (1%) and (1.5%) of aqueous and alcoholic extract which caused complete inhibition of Zoospore germination for both fungi and extracts respectively, compared to the conc. (0.1%) and (0.25%) of the essential oil which caused complete inhibition of Zoospore germination for S. hypogyna and S.ferax respectively.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Education Ibn AL-Haitham			
Department	Biology			
Full Name as written in Passport	Thaer M. Ibrahim			
e-mail	Thaer_205@yahoo.com			
Career	◯ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	◯ Master	◌ PhD		
Thesis Title	Effect of some environmental pollutants on the biomass of the green algae ***Ankistrodesmus bibraianus*** (Reinsch)Kors.			
Year	2006			

Abstract

Summary

The present study dealt with an investigation of the toxic effects of some heavy metals as Zinc, Nickel and Mercury separated and gathered besides the effects of the two pesticides Glyphosate and Nogos on the biomass of the green alga ***Ankistrodesmus bibraianus*** .

Algae biomass was estimated as total cell count and density through absorption values. Accordingly, growth rate and doubling time were calculated for the three heavy metals and the two pesticides used in the present study. Inhibitition rates which are followed by medium effective concentration (EC50) were also measured to obtain values to all treatments of the pollutants used whether they are heavy elements or pesticides. Doing so by isolating and diagnosing the algae as an axenic culture on the modified chu-10 media. The toxic effects of the three heavy metals were tested for 14 days under (25 ± 2 C°, 380μ E / m² / Sm) with photicsystem 16 : 8 hour light: dark . The two pesticides effects on the alga was studied for 7 days. The following concentration of each of Zn: 0.7, 0.8, 1.0, 1.5, 2.0, 2.5, 3.0 mg / l and 0.1, 0.2, 0.25, 0.3, 0.5, 0.8, 1.1 mg / l of Nickel and 0.03, 0.04, 0.05, 0.075, 0.1, 0.125 , 0.150 mg / l of Mercury , were used in the present study. EC50 values were 3.2, 2.8, 2.9, 3.4, 3.0 mg / l for Zinc 1.73, 1.21, 0.432, 0.275, 0.295 mg / l for Nickel and 0.213, 0.139, 0.072, 0.057, 0.043 mg / l for Mercury in 24, 48, 72, 96, 120 hour respectively .

It's clear from the above figures that mercury was the highest toxic effect among the studied metals .The toxic effect of Zn and Ni has been decreased after 48 hrs of exposure, and then increased gradually in the following 72, 96 hrs then decreased again after 120 hrs .

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	Thamir Abdul-Shaheed Muhsen			
e-mail				
Career	◉ Assistant	Lecturer	Assistant Professor	Professor
	◉ Master		PhD	
Thesis Title	Studies on the liability of sunflower meal for contamination with aflatoxin and methods of its detoxification			
Year	2004			
Abstract	The presence of aflatoxins in animal feeds cause a major problem and great losses and toxicity to domesticated animals and poultry, and considered to be a potential health hazard to human health. Accordingly more work required in our country to study the occurrence, significance and to find the best method for prevention and detoxification of aflatoxins. Results of present research can be summarized as follows: 1- The results of microbial content indicated that the maximum level of microorganisms reached in March samples while the lowest content was in June. A total of 115 microorganisms were isolated, most of them belonged to: Aspergillus,Geotrichum, Penicillium, Rhizopus,Fusarium, Mucor, Saccaromyces, Bacillus, all the above mentioned microorganisms appeared, as natural of sunflower meal. 2- The optimum relative humidity (RH) for aflatoxin productionin sunflower meal was (87)% to (80)% (RH) which was unfavoured for the aflatoxin production. 3- The capability of seven strains from A. flavus and A. parasiticus were examined for the highest aflatoxin B_1 production (270 µm/kg), followed by A. parasiticus VI which produced (140 µm/kg) of aflatoxin B_1, compared to other strains which were found to be non-aflatoxin producers. 4- For the effect of substrate on aflatoxin			

	production it was found that the highest amount of aflatoxin B_1 . 5- The result of this study showed no aflatoxins in the oil of sunflowers which indicated that the aflatoxin concentrated only suflower meal.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	College of education Ibn Al-Haitham			
Department	Biology			
Full Name as written in Passport	Waheeda Rashid Ali			
e-mail	W-ali_59@yahoo.com			
Career	◌ Assistant Lecturer	◌ Lecturer	● Assistant Professor	◌ Professor
	◌ Master		◌ PhD	
Thesis Title	**Boron-neutron therapy of hydatidosis in white mice**			
Year	1996			
Abstract	**$^{10}_{5}B(n,x)^{7}_{3}$ Li raction was used to achived maximum RBC and hence destruction to secondary cyst componts of Echinoccous granulosus in white mice This pioneering measure is thought of particular value in controlling hydatidosis in advanced widely distribution cases In order to ensure precise targeting of $^{10}_{5}B(n,x)^{7}_{3}$ Li REACTION, specific antigen- antibody reaction concept, using specific antigen B, was adopted Analogous antibodies were labeled with suitable concentration of boron before therapy was used. The results are brifly enlisted below:-** **First: Immunological study** **Second: Radiation study** **Third: Theraputical study**			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Ibn- Al Haitham Education College			
Department	Biology			
Full Name as written in Passport	Washah Muneer Salih			
e-mail	WashahCaptain@ yahoo.com			
Career	☑ Assistant Lecturer	◌ Lecturer	◌ Assistant Professor	◌ Professor
	☑ Master		◌ PhD	
Thesis Title	EFFECT OF CADMIUM AND CHROMIUM TOXICITY ON SOME BIOLOGICAL ASPECTS TO CRUSTACEAN Daphnia pulex Muller 1785 AND THE INHIBITION OF THEIR TOXICITY BY USING ZINC AS INHIBOTORITIS TO TOXICANT			
Year	2008			

Abstract

The present study included the effect of chromium and cadmium toxicity and using zinc inhibitor to their toxicities on the crustaceans *Daphnia pulex* Muller females. The toxicity of both metals was carried out by finding LC_{50} followed by study the chronic effects of both metals on longevity, growth, and reproduction, (including number of clutch/females, number of juveniles/females, number of juveniles/clutch and time intervals between clutches), also study the inhibition range of zinc when interact with both metals on the studied biological activities. The present study showed that the LC_{50}, were 30, 65 ppb for cadmium and chromium and 0.12 ppm for zinc.

The concentrations used for chronic exposure of *D. pulex* were as follow:

For cadmium: 5, 10, 15, 20 and 25 ppb.

For chromium: 10, 20, 30, 40 and 50 ppb while. The concentration 0.10 ppm was used for zinc interaction with both metals.

The cadmium showed significant effects increased with the increasing concentrations used on females longivity. The chromium had effect on longivity but was not significant.

While the zinc interactions with both metals showed positive inhibition effects of both metals toxicities. The cadmium showed effect on decreasing the molting number with increasing its concentration used. The chromium showed unobvious effect in this case because there are no significant differences between its concentrations and the control treatment, while the zinc interacted with chromium and cadmium showed decreasing in their toxicities.

On the other hand it was found that the time intervals between molts increased with increasing Cd and Cr concentrations. While the zinc interacted with them showed positive effect on decreasing their toxicities, increasing concentrations of Cr and Cd, causes decreasing number of clutch/female.

	There were significant differences between control treatment and the concentrations of both metals, precisely the high concentrations. The zinc showed its positive effect in increasing the number of clutch/female when interacted with Cr and Cd. Increasing the Cr and Cd concentrations corresponded with increasing the number of adys between clutches. There were significant differences between control treatment and the concentrations of Cr and Cd also between the concentrations used of both metals. The zinc interacted with Cr and Cd showe its positive effect in decreasing the time intervals (whether it measured according to the produced females or according to treatment females). The number of juveniles/female d3creased with the increasing the concentration of Cr and Cd. There were significant differences between their concentrations used and the control treatment, and between the concentrations themselves. The zinc showed its inhibited effect onn the Ce and Cd toxicities by the increasing the number of juveniles/female. On the other hand the number of juveniles/clutch was decreased with increasing Cr and Cd concentrations. There were significant differences between control treatment and the concentration of Cr and Cd, and between concentrations used. While their toxicity effect was inhibited by zinc as the number of juveniles/clutch increased. The present study showed from what has been mentioned above that the zinc metal is a good inhibitor for the Ce and Cd toxicities and it can be used for this purpose.

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	Wefaq Amged Mohammed Khalid Al-Qaysi			
e-mail	Wifaqalkaisi@yahoo.com55			
Career	☐ Assistant Lecturer	☐ Lecturer	☐ Assistant Professor	☐ Professor
	☐ Master		☐ PhD	
Thesis Title	Effect of some plant growth regulator on growth and yield of (Vicia faba L.)			
Year	1996			
Abstract				

University of Baghdad				
College Name	Education (Ibn Al-Haitham)			
Department	Biology			
Full Name as Written in Passport	Wijdan Basheer Abed			
e-mail				
Career	○ Assistant Lecturer	● Lecturer	○ Assistant Professor	○ Professor
	○ Master	● PhD		
Thesis Title	Some immunological effect and histological changes in albino rats treated with carcinoma of urinary bladder.			
Year	2006			
Abstract	The study aimed to shed some light on the immunological, histological and physiological effect of the extracted protein from urine of patient with carcinoma of urinary bladder in albino rats *Ruttus norvegicus*. The albino rats were divided in to groups: treated group and control group. The treated group was injected with 0.3 cm^3 of the extracted proteins from urine of patients with carcinoma of urinary bladder with concentration of 0.6 mile gram for first, second, third and fourth week and then compared with the control group (animal treated with 0.3 cm^3 of PBS for the same periods time).			

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad				
College Name	**Education / Ibn Al-Haitham**			
Department	**Biology**			
Full Name as written in Passport	**Zahraa Hussein Mohammed Qadoori**			
e-mail	**Zahraaa_ali@yahoo.com**			
Career	◌ Assistant Lecturer	● Lecturer	◌ Assistant Professor	◌ Professor
	◌ Master	● PhD		
Thesis Title	**Studying the profile of some cytokines and HLA-DQB1 Alleles in seminal fluids of infertile males.**			
Year	**2012**			

Abstract

Summary

The presented study aimed to investigate the role of seminal plasma cytokine (IL-2, IL-4, IL-10, IL-13, IL-17A and TNF-α) and anti-sperm antibody (ASA) levels and HLA-DQB1 alleles in the aetiopathogenesis of male infertility in a sample of Iraqi patients. A total of 116 males with primary infertility attending Kamal Al-Samaraie Hospital, Centre of Infertility and *in vitro* Fertilization (Baghdad) and Baghdad Teaching Hospital (Infertility Clinic) during the period March - August 2010 were enrolled in this study, in addition to 32 fertile males (controls). Based on clinical examination and general seminal fluid analysis, the patients were distributed into three clinical groups: 32 azoospermic, 40 oligozoospermic and 44 asthenozoospermic patients.

The study reached the following results:

1. The azoospermia and oligozoospermia patients, as well as, controls shared an approximated mean of seminal fluid volume

	(2.25, 2.75 and 2.50 ml, respectively), while it was significantly ($P \leq 0.05$) increased (3.58 ml) in asthenozoospermia patients. 2. In control men, the spermatozoa concentration was 65.13 x 10^6 spermatozoa/ml, while it was significantly ($P \leq 0.05$) decreased in asthenozoospermia patients (51.42 x 10^6 spermatozoa/ml), as well as, oligozoospermia patients (5.58 x 10^6 spermatozoa/ml). 3. The percentage frequency of progressive motility was significantly ($P \leq 0.05$) decreased in oligozoospermia and asthenozoospermia patients as compared to control men (9.6 and 16.3, respectively *vs*. 50.6%). In contrast, the non-progressive motile (45.4 and 30.4, respectively *vs*. 21.9%) or immotile (45.0 and 52.5, respectively *vs*. 27.5%) spermatozoa were significantly increased in the patients. 4. Oligozoospermia and asthenozoospermia patients shared an approximated mean of abnormal spermatozoa frequency (56.7 and 58.3%, respectively), but both frequencies were significantly ($P \leq 0.05$) higher than the observed frequency in controls (23.1%). 5. The means of seminal plasma ASAs in azoospermia and oligozoospermia patients, as well as, controls showed no significant difference (38.7, 41.2 and 43.8 U/ml, respectively), but the three means were significantly lower than the mean (55.4 U/ml) of these antibodies in asthenozoospermia. When patients and controls were evaluated in terms of their positivity for ASAs, the highest frequency of positive cases was observed in asthenozoospermia patients (41.7%), followed by controls

	(25.0%), azoospermia (20.8%) and finally oligozoospermia (16.7%) groups, but these differences were not significant when each group of infertility was compared with controls. 6. The mean of IL-2, IL-10 and IL-17A levels in seminal plasma showed no significant difference between the four investigated groups, while IL-4, IL-13 and TNF-α demonstrated significant variations. The seminal plasma level means of IL-4 in oligozoospermia and asthenozoospermia patients (24.5 and 22.3 pg/ml, respectively) were significantly higher than the corresponding means in azoospermia patients and controls (15.6 and 17.1 pg/ml, respectively). For IL-13, asthenozoospermia patients showed a significantly higher mean (31.3 pg/ml) than the mean in azoospermia patients (14.0 pg/ml), oligozoospermia patients (10.2 pg/ml) or controls (13.3 pg/ml). TNF-α showed the highest mean in oligozoospermia patients (106.3 pg/ml), as compared to azoospermia and asthenozoospermia patients (102.0 and 100.1 pg/ml, respectively), as well as, controls (98.6 pg/ml). 7. With respect to cytokine ratios, it was obvious that the most observed variations involved ratios that had IL-13 and they were only in asthenozoospermia patients; an observation that confirms the immunological aetiology of infertility in asthenozoospermia patients, in which IL-13 may play a prominent role. 8. There was significant contribution of IL-2 and IL-4 and IL-4 and IL-13 to increased frequencies of abnormal spermatozoa morphology in oligozoospermia and asthenozoospermia

patients, respectively. With respect to the effect of cytokines on progressive motility, IL-10 and IL-17A showed no significant effects, while for IL-2, IL-4, IL-13 and TNF-α, some significant variations were observed. When such effect was considered on ASAs, there was no simple manner of cytokine distributions in the positive and negative ASA cases in patients and controls, and the variations were subjected to the type of cytokine investigated, as well as, whether the cases are controls or patients, and further variation can also ascribed to the type of infertility (azoospermia, oligozoospermia or asthenozoospermia).

9. Four HLA-DQB1 alleles (DQB1*0204**,** DQB1*0301**,** DQB1*0302 and DQB1*0601**)** showed differences between azoospermia patients and controls, but none of them attended a significant level. In oligozoospermia patients, two alleles (DQB1*0301, DQB1*0501) showed increased frequencies as compared with controls, but the difference was not significant for DQB1*0301 allele, while it was significant (P=0.03) for DQB1*0501 allele (25.0 *vs*. 5.0%). For asthenozoospermia patients, DQB1*0301 (22.7 *vs*. 6.3%) and DQB1*0501 (27.3 *vs*. 6.3%) alleles showed increased frequencies as compared with controls, but both differences attended a significant level (P = 0.05 and 0.02, respectively). The deviated alleles (DQB1*0301 and DQB1*0501) impacted two cytokines (IL-13 and TNF-α, respectively) levels with different effects, but in the same groups of infertility (oligozoospermia and asthenozoospermia). The first allele contributed to a decreased level of IL-13, while

	DQB1*0501 was involved in an increased level of TNF-α in the patients. Furthermore, DQB1*0301 allele was probably associated with predisposition to develop ASAs in oligozoospermia patients, while DQB1*0501 was probably associated with a protection in asthenozoospermia patients.

University of Baghdad	
College Name	Education (Ibn Al-Haitham)
Department	Biology
Full Name as Written in Passport	Zainab T.S. AL-ASady
e-mail	
Career	○ Assistant Lecturer ● Lecturer ○ Assistant Professor ○ Professor
	○ Master ● PhD
Thesis Title	The Effect of Oxytocin on Sialic Acid and The Activity of Immune System in Albino Mice
Year	2002
Abstract	The Present study aimed to shed some light on the effect of the hormone oxytocin on the function of the immune system and level of sialic acid in male albino mice at ages of four and five weeks. Three concentrations of the hormone were employed (0.5, 1.0, 2.0) IU/ mouse which were injected intraperitonialy at a dose of 0.2ml. The following assessments were carried out: **1- Haematological Assays:** White blood cell counts (total and differential) were done. A significant decrease in these counts was observed at the concentration 2.0IU/ mouse in the two groups of age, while there was a significant increase in the counts of neutrophils and monocytes at the concentration 1.0IU/ mouse, especially at the age group five weeks. **2- Immunological Assays:** The immune response was inhibited at the concentration 2.0IU/ mouse while a stimulation was apparent at the concentrations 0.5 and 1.0IU/ mouse. There was a significant elevation in phagocytotic index at the concentration 1.0IU/ mouse for both groups of age, while the concentration 2.0IU/ mouse showed an inhibitary effect. A reduced mitotic activity was observed in the splenic cells at the concentration 2.0IU/ mouse for both age groups, and such reduction accounted for 63.53 and 69.87% of the control values, respectively. In contrast there was a significant elevation in the mitotic index of bone marrow cells after treatment with the three concentration of oxytocin, and a highest level was reached at 1.0IU/ mouse for the two groups of age. The concentration 2.0IU/ mouse, although it showed a lower value, it was still higher than the control one.

There was also a significant elevation in the mitotic index in the tissue of lymph nodes. The macrophage migration index showed a significant elevation after the treatments, and a highest level was observed at a concentration of 2.0IU/ mouse and such elevation accounted for 1737.5 and 3100% respectively of the control values for both age groups.

Arthus reaction and delayed type hypersensitivity showed a significant enhancement at the three concentrations of the hormone for both age groups compared to the control group. A significant elevation in the percentage of plaque forming cells (PFC) was observed at the concentration 1.0IU/ mouse in four weeks old mice, (115.28% of control value). Such elevation was also observed in five weeks old mice, but at the concentration 0.5IU/ mouse (135.40% of the control value). In contrast there was an inhibition in PFC at the concentration 2.0IU/ mouse for the two age groups.

With respect to Adenosine deaminase ADA activity, there was a significant reduction after treatments in both serum and spleen cell homogenate of both age groups. However, the bone marrow cell homogenate showed a significant elevation in ADA activity at 0.5IU/ mouse in the age group four weeks, while the highest activity of ADA in bone marrow was observed at 2.0IU/ mouse of the age group five weeks.

3- Histological Tests: The three concentrations of oxytocin caused some morphological and histological changes in some lymphoid organs. The spleen was pale in colour and showed atrophy, also the blood vessels demonstrated vasodilation and fractionation which caused hemorrhage, especially in the tissue of red pulp. The lymphoid tissue in Periarterial Lymphatic Sheath (PALS) region of splenic nodule and in

red pulp was loose, and a hyperplasia was present (blood vessel congestion and increasing in the number of phagocytes, plasma cells and gaint cells). A filtration for neutrophils and monocytes was also observed and a small dead and necrotic cells were also present. The results of PAS reaction showed a reduced level of mucopolysaccharide in intercellular spaces of PALS and red pulp regions compared to the control group. In lymph node there was an increase in the size of paracortical region and an increase in number of plasma cells in this region. Also there was a diffusion for phagocytes especially in germinal centers. Some loosing in medulla region and shrinkage of some cells were also observed. The PAS reaction showed a reduction in mucopoly- saccharide concentration in intercellular spaces in paracortical and Lymph nodules regions, but it was localized in HEV basement membrane and in medulla region more than in cortex.

4- Total sialic acid level Tests: There was a significant reduction in the TSA level in serum and splenic cell homogenate after treatment with the three concentrations of oxytocin. The highest reduction was observed at 2.0IU/ mouse (170.63 and 233.98μg/ml) for both ages groups, respectivly. In spleen the highest reduction was observed at the concentration 2.0IU/ mouse (33.11 and 34.55% of control value respectively). The bone marrow cell homogenate showed elevated level of TSA at the concentration 1.0IU/ mouse in four week old mice, and at the concentration 0.5IU/ mouse in mice five weeks old. However a reduction in its level was observed at the concentration 2.0IU/ mouse.

The reduction of immune response with the increasing concentration of OT makes it dose dependent, and at the same time it was associated with decrease in the level of total sialic acid in serum, splenic cells and bone marrow cells, showing the

	direct effect of the hormone on the immune system through the sialic acid which represent one of the important component of the structure of many of surface receptors which has an important role in different immune responses.

أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

University of Baghdad

College Name	Ibn-AlHaitham			
Department	Biology			
Full Name as written in Passport	Zeina Nabiel Nssaef			
e-mail	Xeinanabil@yahoo.com			
Career	● Assistant Lecturer	○ Lecturer	○ Assistant Professor	○ Professor
	● Master		○ PhD	
Thesis Title	Effect of Sodium Chloride Salt(NaCl)On Some Biological Aspects Of The Crestacean *Daphnia pulex* (Crustacea:Cladocrra)			
Year	2008			

Abstract

The present study included the effect of Sodium Chloride Salt((NaCl) on some biological aspects of the females of ***Daphnia pulex*, (**Crustacea :Cladocera). The importance of these animals come from their position in the aquatic food chain as a primary consumers, as a major part of the diet of many aquatic animals (for example fish) is composed of Cladocera beside they may be used as a pollution indicator.

The effects of acute and chronic exposure of *D.pulex* females to Sodium Chloride Salt. The acute exposure of the females to Sodium Chloride Salt concentrations ranged between 0.5‰ to 10‰ showed increasing in mortality percentage with increasing the concentrations and exposure time. The highest percentage of mortalities were 100% in 6‰ and 5‰ of Sodium Chloride Salt concentrations after 24 hrs and 48 hrs respectively. While the lowest percentages of mortalities were 10% and 20% in Sodium Chloride Salt concentration of 1‰ after 24 hrs and 48 hrs of exposure. The LC50 after 24 hrs and 48 hrs were 2.95‰ and 2.63‰ respectively. The LC100 and LC0 were 6‰ and 0.5‰ after 24 hrs of Sodium Chloride Salt exposure.

The results of the present study showed decreasing in the mean number of eggs and juveniles produced per female and per clutch with increasing Sodium Chloride Salt concentrations, as well as decreasing the mean number

	of clutch\ female. Increasing Sodium Chloride Salt concentrations coincidenced with increasing time intervals of eggs appearance in the broad pouch as well as increasing time intervals between clutches. The lower and medium concentrations of Sodium Chloride Salt did not affect the time intervals between molts as the 2‰ concentration did. The mean time intervals between molts increased from 1.70 days in control treatment to 2.50 days in 2‰ of Sodium Chloride Salt concentration. The 2‰ concentration showed its sever effect on the number of reproductive female as only one female produced clutches. The number of molts/female decreased from 9.0 molt/female in the control treatment to 6.30 molt/female in 2‰ of Sodium Chloride Salt treatment. On the other hand the higher concentrations of Sodium Chlorid Salt showed its severe effect on decreasing the female's growth and longevity. The growth mean lowered from 2.10mm in the control treatment to 1.70mm in 2‰ of Sodium Chloride Salt treatment. The female's longevity decline from 31days in the control treatment to 28 days in 2‰ concentration of Sodium chloride Salt.