



CURRICULUM VTAE

Name : Prof. Dr. Essam F.A. Al-Jumaili

Date and Place of Birth : 17.10.1952/ BAGHDAD

Marital Status : Married and a father of three children.

Field of specialization : Major : Biochemistry ; Biotechnology
Minor: Enzymology.

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Academic Qualification:

1. B.Sc. degree: 1976. Food Sci and Biotechnology Dept., University of Baghdad. Iraq. Ranked three on the graduating class.
2. M.Sc. degree: 1978. Food Sci. and Biotechnology Dept. (Biochemistry), University of Baghdad. Iraq.
3. Ph.D. degree: 1989, Biochemistry Dept. (Enzymology), Southampton University, U.K.

Position Work:

- 2013(April) Until now** Professor and supervisor of graduate students, Biotechnology Dept. Genetic Engineering and Biotechnology Institute for postgraduate Studies, Baghdad University, IRAQ.
- 2012- 2013** Professor and assistant Dean for postgraduate studies, Genetic Engineering and Biotechnology Institute for postgraduate studies, Baghdad University, IRAQ.
- 1999-2012** Professor and Head of Biotechnology Dept. Genetic Engineering and Biotechnology Institute for postgraduate studies, Baghdad University, IRAQ.
- 1995-1999** Assistant Professor and supervisor of graduate students, Biotechnology and Genetic Engineering Dept., Science Coll., University of Baghdad, IRAQ.
- 1994-1995** Assistant Professor and supervisor of graduate students. Food Sci. Dept. Basrah University. IRAQ.
- 1989-1994** Lecturer. Food Sci. Dept. Basrah University. IRAQ.
- 1985-1989** Assistant lecturer and graduate student. Biochemistry Dept. Southampton University. U.K.
- 1980-1985** Assistant Lecturer. Food Sci. Dept. Agriculture Coll. Basrah University. IRAQ.

INVENTORS PATENTS:

- 1. Inventors patent under NO 4604 and A patent application No. 2016/87 under title : MAKE NEW ELISA KIT TO DIAGNOSIS CANDIDA ALBICANS (CA18)**
- 2. Inventors patent under NO 4722 and A patent application No. 2016/248 under title :**
Design and Evaluation of Antibacterial Activity (Insilco & *Invitro*) of New Quinoline-2-one Derivatives for Inhibition *Pseudomonas aeruginosa*'s Growth Isolated from Iraqi patients.
- 3. Inventors patent under NO 4978 and A patent application No. 2016/576 under title :**
Production Egg Yolk Antibodies (IgY) in Hens By Using Glucosyltransferase purified from local Isolate *Streptococcus mutans* (Serotype C).
- 4. Inventors patent under NO 5049 and A patent application No. 2016/ 477 under title:**
Cloning and Extracellular Expression of Thermostable Alkaline Protease Gene from *Bacillus stearothermophilus* AEAL2 in *Pichia pastoris* .
- 5. Inventors patent under NO 5355 and A patent application No.2017/380 under title:**
Using The Pure Lignin compound from flax seed *Linum usitatissimum* as the Desmutagen and The Bioantimutagen in mammals system.
- 6. Inventors patent under 5525 and A patent application No.2017/152 under title:**
Effectiveness of bacterial biofilm extract and acidocin against bovine mastitis infection.
- 7. Inventors patent under 5743 and A patent application No. 2018/247 under title:**
Production and Purification of Antibiotic from Bacterial local Isolate *Polyangium celluloseum* 37
- 8. Inventors patent under 5862 and A patent application No.2018/315 under title :**
Purification and Antimicrobial Activity of Biosurfactants From *Saccharomyces cerevisiae* against planktonic cell & biofilm of *Acinetobacter baumannii*

List of Publications:

- 1. M. S. Maki ; A. M. Al-Fak , E. F. Alwan and I.A. Mahammed. (1983)** Use of Zahdi dates as a substitute to sucrose in ice cream . Arab Gulf . vol. 15 No.1.
- 2. Essam F. A. Al-Jumaily and Hailan H. Al-Tikriti. (1984).**A study on the composition and some properties of Iraqi sheep milk. Iraq. J. of Agri., Sci. "Zanco" vol. 2. No. 4.
- 3. Essam F. A. Al-Jumaily. (1984).** The Awshari chesse . Manufacture and Composition. J. Food Technology. No.3,4 vol. 5.
- 4. Peter M.Jordan , Bob I.A.Mgbeje, Essam F. Alwan and Steven D. Thomas. (1987).** Nucleotide sequences of hemD the second gene in the hem operon *E. coli* K-12 . Nucleic Acid Research. 15, 24.
- 5. Peter M. Jordan , Bob I.A. Mgbeje, Steven D. Thomas and Essam F. Alwan. (1988).**Nucleotide sequence for the hemD gene of *E. coli* encoding uroporphyrinogen III synthase and initial evidence for a hem operon. Biochem. J. 249, 613-616.
- 6. Essam F. Alwan, Bob I.A. Mabeje and Peter M. Jordan. (1989)** Purification and properties of uroporphyrinogen III synthase (Co-synthetase) from an overproduction recombinant strain of *E. coli* K-12. Biochem. J.. 264, 397-402.
- 7. Essam F. Alwan and Peter M. Jordan. (1989).**Isolation of uroporphyrinogen III synathase from *Escherichia coli* .. Biochem. J. Vol.16. p. 965-966.
- 8. Essam F. A. Al-Jumaily (1991).** Isolation and determination of some characteristics of Arabi sheep α - casein. Basrah. J. Agric. Sci. 4 . No.1&2, P.182
- 9. Nazar A. Shukri , Essam F. A. Al-Jumaily and Abdulla S. Mohmood. (1993).**A study on composition of Arabi sheep milk casein . Basrah J. Agric. Sci. vol.6. No.1.
- 10. Essam F. Al-Jumaily and Peter M. Jordan. (1994).**Purification and properties of uroporphyrinogen III synthase (Co-synthetase) from Human erythrocytes. Basrah. J. of Science. C, Vol. 12, No.2.
- 11. Essam F. A. Al-Jumaily. (1994).**Isolation and characterization of Onion skin pectin. Basrah J. Agric. Sci. vol. 7 No.1.

12. **Essam F. Al-Jumaily, T. N. Musa and E. H. Al-Saraji. (1999).** Aiseed (*Pimpinella anisum* L.) content for some minerals . Ibn-Al-Hiatham J. for Sci. & Appli. Vol. 11 No. 2 .
13. **M. A. Al-Safar, Essam F. Al-Jumaily and N. A. Ali. (1999)** Purification of α - amylase Enzyme from *B. stearothermophilus* MAG3 by Solid State Fermentation . Biotechnology Res. J. vol. 0. No.1.
14. **Essam F.A. Al-Jumaily and M.R.A.Al-Khalidy (1999)** Utilization of Protein Concentration Treated with Pepsin in Poultry Feed. Iraqi Science J. Vol. 40B No.2.
15. **M.R.A.Al-Khalidy and Essam F.A. Al-Jumaily.(1999)** Utilization of Slaughter House and Fish by Products for Protein Concentrates Production. Ibn-Al-Hiatham J. for Pure.& App. Sci. 12 (2).
16. **M. A. Al-Safar, Essam F. Al-Jumaily and N. A. Ali. (1999)** Production alpha-Amylase from *B. stearothermophilus* MAG3 by Solid State Fermentation .
- 1- Isolation and determination the optimum conditions for enzyme production. Iraqi. Science J.40B , No.3;
17. **Nada S. Al-Shaikhly and Essam F. Al-Jumaily (1999).**Production of Adenosine Triphosphate (ATP) from Local Isolate of *Cadida tropicalis* .
1.Isolation and Determination the Optimum Conditions for ATP Production. Biotechnology Res. J. Vol. (1). No.1,P.68-80.
18. **Essam F. Al-Jumaily and Nada S. Al-Shaikhly. (1999).**Production of Adenosine Triphosphate (ATP) from local isolate of *Cadida tropicalis* .
2. Extraction , Purification and Examination for ATP. Al-Mustanisiriya Scince J. Vol.(3) , No. 3 :49-54.
19. **Essam F. Al-Jumaily.(1999).**Purification of Some Biologically Active Proteins from Flat pea (*Lathyrus sativus*) Seeds. Biotech. Res. J. Vol. 1 No.1.
20. **Essam F. Al-Jumaily and M.R.A.Al-Khalidy (1999).**Production of Hemin Substitute from Cow-Blood by Using Local Hydrolase enzymes. The Veterinarian Vol. (9), No.3, p. 74-80
21. **Essam F. Al-Jumaily (2000).**Production of gibberellins from *Fusarium moniliforme* by solid state fermentation. Journal of Saddam university. Vol.(4) no.2. p: 7-18.(Science).
22. **Essam F. Al-Jumaily and Nada S. Al-Shaikhly . (2000).** Study the Influence of Some Parameters Effects on Germ-Tube Formation in *Candida albicans*. Iraqi Journal of Microbiology .Vol.12 (2), p. 60-69.
23. **Essam. F. Al-Jumaily ; M. A. Al-Safar and T. N. Mosa (2001).** The Local German Camomile (*Matricaria chamomilla*) Flowers Content for Some Minerals. Al-Mustanisiriya J of Science vol.12, No.1
24. **Essam F. Al-Jumaily. (2001).**Gumsubstance of Okra Pods (*Hibiscus esculentus* L.) Ibn-Al-Hiatham J. for Pure &Appli. Sci. Vol. 14.No.2.
25. **Essam F. Al-Jumaily; E. M.J. Al-Doori , M. A. Al-Safar and S. M. Al-Biaty. (2001)** Purification of Mannan Binding Lectin from Human Serum and Its Antimicrobia Activity. J. of Saddam University vol.(5) No.(1) pp.41-47 Science.
26. **Essam F. Al-Jumaily(2001).** Study on Different Levels for Nitrogen on Production of Gibberellins from *Fusarium moniliforme* . J. Al-Mu'lim Al-Jaml'y . vol.3, No.(6), Jan,
27. **Essam F. Al-Jumaily; E. M.J. Al-Doori , M. A. Al-Safar and S. M. Al-Biaty (2001).**The Antibacterial Activity of Serum Mannan Binding Protein (S-MBP) from Human Serum. Iraqi J. of Comm. Med., vol.14, Sept. (2-suppl.)
28. **H. M. Al-Delaimi , Essam F. Al-Jumaily and S. Y. Yousif. (2001).** Determination of Optimum Conditions for Xanthan Production by The Local Isolate *Xanthomonas campestris* H6 Using Solid State Fermentation system. Biotechnology Res.J. Vol.(3) No. (2)
29. **Essam. F. Al-Jumaily , A. H. A. Al-Temimi and N.A. Ali. (2001).**Isolation and Characterization of Nocardicins from *Nocardia asteroides local isolate* . Al-Mustanisiriya J. Sci. Vol. 12, No.(3),
30. **Hamied M. Al-Delaimi , Samira Y. Yousif and Essam F. Al-Jumaily. (2001).** Screening of Local Isolates of *Xanthomonas campestris* according to Xanthan Production. Iraqi. Science J.42B , No.2; 72-85.

31. **Hameed M. Al-Delaimi , Samira Y. Yousif and Essam F. Al-Jumaily. (2001).** Plasmid profile of the local isolate *Xanthomonas campestris* H6. Iraqi. Science J.42B , No.2; 86-99.
32. **Samira Y. Yousif, Hameed M. Al-Delaimi and Essam F. Al-Jumaily. (2001).** Effect of molecular, chemical and physical Mutagens on the ability of *Xanthomonas campestris* H6 on Xanthan production. Iraqi J. of Science, 42B , No.2. 38-57.
33. **Essam F. Al-Jumaily , M.A. Al-Safar and L.Kh. Rifaat. (2002)** Effect of Extracted Volatile Oil from Local Thyme on Pathogenic Bacteria. Ibn Al-Haitham J. For Pure and Applied Science. Vol. (15) N0. (4A).
34. **Hameed M. Al-Delaimi , Essam F. Al-Jumaily and Samira Y. Yousif. (2002).** Purification of Xanthan Produced from *Xanthomonas campestris* H6 by Gel filtration Chromatography and studying it's Qualitative Characteristics. Iraqi J. of Biotechnology. No.1.
35. **N.H. A.Al-Mudallal, Essam F.A. Al-Jumaily S.J. Hamza, and A.W.R. Hamas. (2003).** Cleavage of Human Secretory Immunoglobulin A (S-IgA) by protease isolated from *Streptococcus sanguis* (N14). Al-Mustanisiriya J. Sci. Vol. 14, No. (1),
36. **Essam F. Al-Jumaily , Muntaha A. Al-Safar and S. N. Al-Obiadi. (2004).** Changes in Chemical Composition between White and Black-Kame . Al-Taqani. Journal. Vol.17 No.(2),
37. **N.H. A.Al-Mudallal Essam F.A. Al-Jumaily , A.W.R. Hamas and S.J. Hamza (2004).** Purification of IgA protease from Native strain of *Streptococcus sanguis*. Al-Mustanisiriya J.Sci. Vol.15,No.(1).
38. **Essam F. Al-Jumaily , Reema M. Alaubaidi and Fairs Abd Al-karrem . (2004).** Purification and characterization of mannan binding lectin from human serum. Al-Mustanisiriya J. Sci. Vol.2, No.2 ,
39. **Essam F. Al-Jumaily , Fairs Abd Al-karrem and Reema M. Alaubaidi (2004).** The effect of purified Mannan-binding lectin (MBL) in activation the complement system. Al-Fatah J. No. 20, 284-299.
40. **Essam F. Al-Jumaily and Muntaha A.K. Al-Safar (2004).** Purification of Acid protease produces from local strain *Candida albicans* by aqueous two phase systems. Diala University J. Vol. 4 No.14 .
41. **Essam F. Al-Jumaily ; Asma'a W. Daweed and Mohammed I.Nadir (2004) .** Production of Alkaline protease from local *Bacillus stearothermophilus* AEAL2 by soild state fermentation. Iraqi J. Biotech., Vol.3, No. 1: 137-155.
42. **Essam F. Al-Jumaily. (2004).** Production Gibberellin (GAs) from *Fusarium moniliforme* local isolated. 2. Identity and Purification of Gibberellin (GA3; GA4&7).(J. of Al-Nahrain Unvi Vol. 7(2), December, pp. 17-22 .
44. **Essam F. Al-Jumaily , Muntaha A.K. Al-Safar and Zahraa F. Ameen. (2004).** Purification and Characterization of proteases from a soil isolate of *Serratia marcescens*. Technical Research Journal. Vol 17 .No.4 121-132 .
45. **H. A. Hussein , Essam F. Al-Jumaily and A.K. Al-Dulaimy (2005).** Production of yeast extract from spent Brewer's yeast. The Journal of Biotechnology Vol.4, No.1.
46. **Shatha Hassan Essam F. Al-Jumaily and Muntaha Al-Safar .(2005).** Production of lipase by *Serratia odorifera* SME14 using liquid state fermentation. J.of Biotechnology. Vol.7 No.1.
47. **Azhar A. Ibrahim; Rasseel A. Dabbagh and E. F. Al-Jumaily. (2005).** Passive immunization with candida albicans antiproteinase as a prophylactic tool against the candidiasis. J. of the faculty of Medicine Baghdad. J.Faculty of Medicine Baghdad. Vol.47, No.2.
48. **Ibrahim , A. Al-Biyati; Essam F. Al-Jumaily; Noria A. Ali and Mohmmaed A. Ibrahim. (2005).** Purification of DNase produced by local Streptomyces isolates. The Journal of Biotechnology, Vol. 4, No.1.
49. **Essam F. Al-Jumaily; Mhadi H.M. Al-Kassaiy and Usam A. Mahsen (2005).** Purification and Characterization of Lawsone compound isolated from local Henna leaves *Lawsonia inermis* L. (Lythraceae) and the inhibitory activity on some pathogenic fungi. Biotechnology J. Vol.7, No.1. 38-50.

50. **Essam F. Al-Jumaily and Hameed M. Al-Delaimi. (2005).** The ability of *Xanthomonas campestris* pv. *Campestris* NRRL B-1459 on extracellular enzymes production by solid state fermentaton system. Al-fatah, J. No.24.57-70.
51. **Essam F. Al-Jumaily , Muntaha A. K. Al-Safar and Rhagad A. A. Al-Suhail. (2005).** Isolation and Purification of Myeloperoxidase from human polymorphoneuclear-cells (PMN). Medical Iraqi J. Vol.4.No.2.
52. **Essam F. Al-Jumaily and Asma'a Waleed Dawood . (2005).** Purification of Protease Enzyme from *B. stearothermophilus* by Solid State Fermentation. Al-Nahairn J. University. Vol.8 (1) P.12-18.
53. **Essam F. Al-Jumaily; Mhadi. H. M. AlKasaay; Muntaha A.K. Al-Safar and Usam A. Mahsen. (2005).** Study of antifungal activity of local Henna leaves *Lawsonia inermis* L. (Lythraceae) Extracts on Some Pathogenic fungi (*In vivo*). Al-Nahairn J. University. Vol.8 (1) P.24-29.
54. **Azhar A. Ibrahim ; Essam F. Al-Jumaily and Resol .Dabbagh (2006).** Purification and properties of Aspartyl Proteinase from *Candida albicans*. Medical Iraqi J. Vol.5. No.1.
55. **Essam F. Al-Jumaily. (2006).** Effect of Chemical and Physical Mutagens on the of *Serratia oderifer* SME 14 on Lipase production. Missan Researches J. Vol. 2 No.3 .
56. **Essam F. Al-Jumaily , Al-Zadea, M. K.T. and Al-Shikirhy , F.H. (2006).** A study of some main and active component in *Alhagi graecorum* Boiss . (Fam. Papilionaceae). J. of Um-salama vol.3(4):616-621.
57. **Firial H. M. Al-Shikirhy; K. A. Shikir and Essam F. Al-Jumaily. (2006).** Extraction and Purification of Urease from Zahdi date plam seeds (*Phoenix dactylifera* L.)
1. Screening of commercial varieties date seeds for urease enzymes. Journal of Al-Nahrain University- Science, Vol. 9, No.1, June .
58. **Firial H. Al-Shikirhy , Shikir K.A. Essam F. Al-Jumaily . (2006).** Some physical and chemical properties of urease from zahdi dates plam seeds (*Phoenix dactylifera* L.) Biotechnology Res. J. Vol.8 No.2.
59. **Essam F. Al-Jumaily, Sura M. Abdul Majeed and Khalid A. Habib. (2006).** Separation and Purification of Thymol from volatile oil of *Thymus vulgaris* and its activity against *C. albicans*. Biotechnology Res. J. Vol.8 No.2.
60. **Essam F. Al-Jumaily, Reema M. Alaubaidi and Mohammed I. Nadir. (2006)**
The Agglutination action of Mannan Binding Protein (Lectin) against some local isolates of pathogenic bacterial. Iraqi J. of Sciences. Vol.47 No.1. Pp63-67.
61. **Khalid A. Habib Sura M. Adil Majeed and Essam F. Al-Jumaily (2007).** Study on *Candida spp.* Infection oral thrush and bacteria accompanied it from children. J. of Um-Salama Vol.4 No. (2).
62. **Maareb N. Al-Obedi ; Essam F. Al-Jumaily and Fairs A. Karim . (2007).** Production of Diagnostic kit for syphilis disease. The Journal of Iraqi Biotechnology. Vol. 6, No.1: 19-30.
63. **Khalid A. Habib, Essam F. Al-Jumaily and Sura M. Abdul Majeed. (2007).** The effect of oil extracted from Thymus (*Thymus vulgaris*) in *Candida* species and bacteria isolated from children who infected with oral thrush. The Journal of Iraq Biotechnology, vol.6 No.2 .
64. **Firial H. Al-Shikirhy, Shikir K. A. Essam F. Al-Jumaily . (2007).** Characterization of urease from Zahdi dates plam seeds (*Phoenix dactylifera* L.) The Journal of Iraqi Biotechnology. **Vol.6 No.2.**
65. **Essam F. Al-Jumaily and Najwa S. Ahmed (2007)** Effect of Carbon and Nitrogen Sources on Indole Acetic Acid Production from *F. oxysporum* F2 local strain. J. Al-Nahrin University- Sci . Vol. 10, No. 1, June.
66. **.Essam F. Al-Jumaily, Sura M. Abdul Majeed and Khalid A. Habib. (2007).** The effect of oil extracted from lemon grass *Cymbopogen citratus* against pathogenic yeasts and bacteria isolated from children who infected with oral thrush. J. Al-Nahairn J. University-Sci. Vol. 10 No. (2).
67. **Essam F. Al-Jumaily, Najwa S. Ahmed and Ali O.A. Al-Shimary. (2008).** Extraction and Purification of indole acetic acid from *Fusarium oxysporum* (F2) locale isolate . (Um –salma J. vol.5.no.1.pp 27-37.
68. **Khalid A. Hibibi ; Essam F. A. Al-Jumaily and Shaimaa E. Kadhum. (2008).** Isolation and identification of fungi which associated with animal's leather. um-samla, vol.5. no.3 . pp .

69. **Essam F. Al-Jumaily (2008)** .Microbial lipases: Potential Biocatalysts for the future industry. The Journal of Iraq Biotechnology . vol.7 No.1 pp: 1-20.
70. **Nada H.A. Al-Mudallal, Essam F.A. Al-Jumaily , Nidhal.A.A.Muhimen and Abd Al-Wahid Al-Shaibany. (2008)**. Isolation and identification of mutant's streptococci bacteria from human dental plaque samples. Journal of Al-Naharin University. Vol.11(3),December, pp: 98-105.
71. **Essam F.Al-Jumaily , Khalid A. Habib and Sura M. Adbil Majeed. (2008)** .The minimum inhibitory concentration (MIC) and minimum fungicidal concentration(MFC) of extracted oil of lemon grass and thyme against candida spp. and bacteria spp. Isolated from children with oral thrush. (Um-samla J. vol.5. no.2 . pp .160-165.)
72. **Essam F. A. Al-Jumaily, Khalid A.Hibibi and Shaimaa E. Kadhumi.(2008)**. Optimum conditions for the production of neutral protease from local strain *Aspergillus* . **Um-samla J. vol.5. no.4 . pp .472-481.**
73. **Essam F. Al-Jumaily , Zahair A. Al-Taai and M.A. Al-Safar (2009)**. Purification and Characterization β - lactamase produce from local isolate *Klebsiella pneumonia* (**Um-samla , vol.6. no.1 pp 50- 60**).
74. **Narjis H.M. Al-saddi ; Essam F. Al-Jumaily and Anis , M. Al-Rawi. (2009)**.Extraction and Purification of urease from *Proteus mirabilis*. **National Journal of Chemistry,vol.33,138-145.**
75. **Aseel S. Mahmood ; Essam F. Al-Jumaily and Safaa A. Al-Maeni (2009)** Purification and characterization of Mannose specific lectin from *Klebsiella pneumoniae* A1. Third Science conference., College of Science , **Baghdad University March 24-26, 2009 pp. 218-229**
76. **Ali hafedh Abbas ; Essam F. Al-Jumaily and Dunia Farid Saloom (2009)**. Study of mutagenicity effect of aqueous extract of salvia officinalis by bacterial system. Third Science conference., College of Science. **Baghdad University March 24-26, 2009. pp.303-310**
77. **Amir H. Al – Shammary, Essam F. Al-Jumaily and Nidhal Abdulmohymen. (2009)**. Purification and Characterization of urease from *Klebsiella pneumoniae* Local Strain . **Iraqi J. of Biotechnology, V ol. 8 No.1. pp.207-218.**
78. **Ashwak B . J. Al-Hashimi ; Essam F. A. Al-Jumaily; Amina N. Al-Thiwini and Hitham A. Al-Omari . (2009)**.Extraction and Purification of Lipopolysaccharide (LPS) from *E. coli* O157:H7 ioslate . **J. Of Reasearch Centre of Biotechnology. Vol. 3:No.1.pp: 10-14.**
79. **Essam F.Al-Jumaily and Najwa S. Ahmed (2009)**. Optimal conditions for production of Indole Acetic Acid (IAA) from local strain *Fusarium oxysporum* F2. **J. of Reasearch Centre of Biotechnology J. vol.3: no.1.pp.15-22.**
80. **Narjis, H.M. Al-Saddi , Essam, F.Al-Jumaily and Anis, M. Al-Rawi (2009)**. The Antimicrobial Activity of Fenugreek Seeds and Corn Silk Extracts. **Iraqi J. of Biotechnology , vol.8 No.1: 457-464.**
81. **Essam F. A. Al-Jumaily , Zahraa F. Ameen and Ayad H. Jassim (2009)**. Isolation and Purification of Glutathione S-transferase from Rat Live. **J. of Al-Narharin Univ., vol.12 (4) Dec. pp.137-144.**
82. **Zainab Yassen; Essam F.A. Al-Jumaily and Ali, O.Abd. . (2009)**. Purification and characterization of resveratrol extracted from grape skin fruit *Vitis vinifera*.**Iraqi J. Biotech. 8(2):541-550.**
83. **Essam F. A.Al-Jumaily; Layla O. F. Al-Karky and Basher F. Hassan (2009)**. Extraction and Purification of urease in the seeds of wheat *Triticum aestivum* L. **Iraqi J. Agric. (Special Issue) vol. 14 no.(4) 71-81.**
84. **Zainab Y. Mohammed; Essam F.A. Al-Jumaily and N. Y. Yassen . (2009)** *In vitro* cytotoxic study for purified resveratrol extracted from grape skin fruit *Vitis vinifera* **Iraqi J Pharm Sci , Vol.18 (Suppl.) 19-25.**
85. **Essam F. Al-Jumaily, Hadi R.R.Al-Taai , Ala'a S. Abbas and Hussan H. Khanaeqah (2009)**. Isolation and Purification of β –lactamase from *Proteus mirabilis* local isolates 4TF and 20TF. **Um-samla J. vol.6. no.2 . pp .249-256 .**
86. **Noor Al-Eman F. Al-Bayati ; Essam F. A. Al-Jumaily and Najwa. Shehab (2009)**. Optimization study for the bacteriocin production by local isolate of *Leuconostoc mesenteroides*.(9th. **Scientific veterinary medicine college conference 31/3-1/4 vol 2 pp18-25.**
87. **Anwar I. Obead ; Essam F. Al-Jumaily and Kahtan A. Al-Mzaein (2009)**. The assesment the estrogenic performance of volatile oil extracted from aniseed (*Pimpinella anisum*) in immature female mice. (9th. **Scientific veterinary medicine college conference .31/3-1/4 .vol.2 pp 144-150.**

88. **Essam F. Al-Jumaily, Faiha'a M. Khaleel and Anis Al-Rawi. (2009).** The Effect of Chronic diseases on homocysteine and vitamin B12 in patients serum. **J.Fac. Med.Baghdad, Vol. 51, No.4 pp. 399-402.**
89. **Hala A. Abdul-Razah , Khalil M. Khamas and Essam F. Al-Jumaily. (2009).** Isolation of fruiting gliding bacteria *Polyangium cellulosum* from pasture soils. **Al-Mustansiriyah J. of Science, Vol.20,No.4,pp. 8-14.**
90. **Hala A. Abdul-Razah , Khalil M. Khamas and Essam F. Al-Jumaily. (2009).** Purification of fruiting gliding the bacterium *polyangium cellulosm* by second baiting technique. **Al-Mustansiriyah J. of Science, Vol.20,No.4,pp.15-20.**
91. **Rana A. Al-Temmemy and Essam F. Al-Jumaily (2009).** Identification of Mediterranean mutation in the G6P gene on molecular level in Iraqi population. **J.Biotechnology Research Center, Vol3 No.2. pp 90-100.**
92. **Anwar I. Obead ; Kahtan A. Al-mzaein and Essam F. Al-Jumaily (2009).** Purification of some active ingredients of alcoholic extract of aniseed (*Pimpinella anisum*) and assesment their estrogenic performance in immature female mice. **J.Biotechnology Research Center, Vol3 No.2. pp 100-109**
93. **Zainab Y. Mohammed; Essam F.A. Al-Jumaily and N. Y. Yassen . (2009)** *In Vitro* cytotoxic study for partial purified resveratrol extracted from grape fruit *Vitis vinifera*. **J.Biotechnology Research Center, Vol.3 No.2. pp 40-48.**
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32. **Genotyping of Osteocalcin and the level its protein in sera of patients with metastatic bone tumor. Ph.D. thesis. 2018.**
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1. Utilization of slaughter house and fish by-product for protein concentration production and determination of their efficiency. M.Sc. thesis, **1998.**
2. Production alpha-amylase from *Bacillus stearothermophilus* MAG3 by solid state fermentation and purification. M.Sc. thesis **1998.**
3. Isolation, Purification and production cloning and Purn of ATP from locally yeast. M.Sc. thesis **1999.**
4. Production of gibberellin (GAs) by solid state fermentation from locally *Fasarium moniliforme* M.Sc. thesis **1999.**
5. Evaluation of Human oral streptococcus species for production of IgA protease. MSc. Thesis. **2002 .**
6. Design of unit operation for the production of yeast extract. M.Sc. thesis. **2002.**
7. Purification and Characterization of Mann-Binding protein form human serum. M Sc. thesis. **2002.**
8. A study on the chemical components of local henna leaves *Lawsonia inermis* L. (Lythraceae) and antifungal activity of its extracts and lawsone on some pathogenic fungi. M.Sc. thesis. **2003**
9. Production of diagnostic kit for syphilis disease .MSc. thesis. **2003.**
10. Purification of Alkaline protease from *Bacillus stearothermophilus* by solid state fermentation. M.Sc. thesis **2003.**
11. Extraction and purification of lignan compound from flax seed *Linum usitasttissimum* and study its antimutagenicity on different systems. M.Sc. thesis. **2004.**
12. Study of the leather fungi and their ability to producing protease. M.Sc. thesis **2005.**
13. Production of thymol from calls tissue of thyme *thymus vulgaris* L. Using plant tissue culture techniques. M.Sc. thesis **2005.**
14. Extraction and purification of immunoglobulin –G from placenta and human blood serum and immunoglobulin-M from Human blood serum. M.Sc. thesis **2005.**
15. A study the the effect of White rain lily (*Zephyranthes candida*) Extraction and some its component on the cell division. M.Sc. thesis. **2005.**
16. Effect of some active components extracted from lemon grass *Cymbopogon citratus* and thyme *Thymus vulgaris* in candida species and bacteria iosalated from children mouths with oral thrush. M.Sc. thesis. **2006.**
17. Purification and Characterization of bacterial Beta–lactamase and their inhibitors. M.Sc. thesis. **2006.**
18. Rectivity of some transition metal complexes toward glutathione in the presence and absence of isolated and purified glutathiones s- transferase. M.Sc. thesis. **2006.**
19. Study effect of chemical inhibitors on urease enzyme purified from wheat seeds plant *Triticium aestivum* L. M.Sc. thesis **2006.**
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22. Extraction and Purification of lignan and study its effect on cancer cell lines *in vitro* M.Sc. thesis 2007.
23. Production and Preservation of industrial enzymes from fungi associated with animal skins during soaking. M.Sc. thesis 2007.
24. The study of Mutagenicity effect of aqueous and alcoholic extract of *Salvia officinalis* by bacterial system. M.Sc. thesis 2007.
25. Purification of some active ingredients of alcoholic extract of aniseed (*Pimpinella anisum*) and studying some of their physiological effects on the female reproductive system of mice. M.Sc. thesis 2008
26. Epidemiological and Enzymological study of the yeast *Candida albicans* causing vulvovaginal candidiasis and the interference with associated bacteria. M.Sc. thesis 2008.
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28. Processing and Characterization of traditional Iraqi fermented food (Kishik). M.Sc. thesis 2008.
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32. Study of plasmid and protein discipline of *E. coli* responsible for the contamination of major rivers in Iraq. M.Sc. thesis 2008.
33. The Effect of alkaloids extracted from *Zephyranthes candida* on mitotic division in animal cells. M.Sc. thesis 2009.
34. Extraction and Purification of catechin from green tea (*Camellia sinensis*) and its synergistic effect on U.T.I. causing bacteria. M.Sc. thesis 2010.
35. Effect of Klebocin partially purified from bacteria *Klebsiella pneumoniae* local isolated on some enteric bacteria and on some immune cells. M.Sc. thesis 2010.
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39. Proteolytic degradation of salivary proteins by oral *Streptococcus* and selection for Attenuated mutants. M.Sc. 2012.
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41. Optimization conditions for productions of fibrinolytic enzyme from *Bacillus lichniformis* B4 local isolate. M.Sc. 2013.
42. Extraction and Purification of flavonoid from local propolis and its application as an antioxidant in laboratory animal. MSc. 2013.
43. Study of Some Effects of Prepared Vaccine from Local Strain of The *Klebsiella pneumoniae*. MSc. 2014.
44. Syntheses and study the pharmacological effect of Resveratrol and its derivative as anti-diabetes *in vivo*. MSc. 2014.
45. Detection of JAK2v617F Mutation and serum levels of Alkaline phosphatase and Lactate Dehydrogenase in Chronic Myelogenous Leukemia. M.Sc. 2014.
46. Extraction and Purification of Polyphenolic compounds from *Cyperus rotundus* rhizomes and study their effects as antioxidants *in vivo*. M.Sc. 2015.
47. Production, Purification and characterization of alginase from *Bacillus circulans* local isolate. M.Sc. 2015.

48. Extraction of volatile and fixed oils from (*Nigella sativa* L.) and studying its immunological effects in mice. M.Sc. 2016.
49. Extraction and Purification of Active Compounds from *Bauhinia variegata* L. and Assessment its Hypoglycemic Effect in Alloxan induced Diabetic Mice M.Sc. 2016.
50. Biochemical and Genetic Study of Virulence Factor Hemolysin of *Proteus mirabilis* Isolated from Urinary Tract Infection. M.Sc. 2016.
51. Evaluation of The Activity of Quinoline-2-one Derivatives as Bacterial Antibiotic to inhibit the mexB Efflux Protein of *Pseudomonas aeruginosa*. M.Sc. 2018.
52. Study of the Association of IL-6 Gene Expression with the level of Thyroid Hormones and some Biochemical Traits in Iraqi Women With PCOS. M.Sc. 2018.
- 53.

High Diploma

1. Extraction and partially purification of pepsin from cow (Abomasum). 2004.
2. A primary study of some main and active component in *Alhagi graecorum* boiss. (Fam. Papilionaceae). 2005.
3. Extraction and Partial purification of protease form *A. niger*. 2005.
4. Al-Zheimer disease and its relation with acetylcholinesterase . 2006.
5. New techniques using in electrophoresis. 2011.
6. Extraction of Alkaloids and Flavonoids from *Alhagi graecorum* Boiss (Fam. Papilionaceae). and Study some of effect on the pathogenic bacteria. 2012.
7. Metabolic and genetic regulation of the hormone leptin in mammalian. 2013.
8. Production *Pseudomonas* spp. To pyoverdine pigment and possibility uses as a factor for biological control. 2013.
9. Liposomes as pharmaceutical carrier. 2014.
10. Study of Lipid profile In Type 2 diabetes mellitus patients. 2016.
11. The relationship between Alzheimer disease and Diabetes mellitus type III with the role of vitamin D, 2018

Conferences and Studies:

1. First Dairy Conference , Basrah University, 1981
2. First Arabia Dates Conference , Baghdad, 1983
3. Tetrapyrroles group meeting . London, 1986.
4. Tetrapyrroles group meeting. Southampton 1987.
5. Tetrapyrroles group meeting. Leeds, 1988.
6. Biochemical Society Transaction 626th meeting , Sheffield, 1989.
7. Medical College Science conference, Basrah University, 1993.
8. Third Science College Conference, Al-Mustansiriya University, 1993.
9. First Science Conference, Baghdad University, 1996.
10. First Biology Conference, Ibn-Al-Hiatham college, Baghdad, 1998.
11. 10th Science Vet. Syndicate of Iraq Vet. 1998.
12. Second Science College Conference, Baghdad University, 1999.
13. 11th Science Vet. Syndicate of Iraq Vet. 1999.
14. The Sixth Scientific Conference of Babylon University 25-27 April 2000.
15. 9th Arabic Scientific Conference . of Vet. Baghdad 2000
16. The Second Conference in Medical & Biological Sciences, Faculty of Allied Medical Sciences, Zarka Private University, Jordan. 2001
17. The Fourth Agricultural Conference, Jerash Private University—Faculty of Agriculture and Science,. 2001.
18. The Second Arab Conf. On Biotechnology and Genetic Engineering –The kingdom of Bahrain, April 2002.
19. The Second international conference on Biological Sciences – Tanta University, Egypt. 2002.

20. Biosafety meeting , May , 2002.
21. The six conference , Saddam Medical College. 29-31/10/2002.
22. The tenth Science vet. Syndicate of Iraq Vet. Baghdad, 17-19 Dec. 2002.
23. The second national conference of Biology , Baghdad/ college of Science , Al-Mustansiriya University , 25-26 –12 ,2002
24. The second National conference of chemical Engineering and Petroleum Engineering , 24-25 Dec. 2002.
25. The second National conference of Food Science and Dairy Biotechnology , Basrah , 24-25 Sept. 2002.
26. **The Third Conference in Medical & Biological Sciences, Faculty of Allied Medical Sciences, Zarka Private University, Jordan.2004.**
27. The kurdistan first conference on Biological Sciences, University of Dohuk/2-4 May ,2006.
28. The Third Arab conference in Teaching and Education, Lebanon 24-26 April. 2006
29. The Sixth Jordanian Agricultural Scientific Conference Amman, Jordan 9-12 April 2007 .
30. Frontiers of chemical sciences III " Research and education in the middle east , Istanbul Hilton, December 8-13 , 2007.
31. The first Biotechnology conference. Genetic engineering and Biotechnology Insitute , Baghdad University, April, 2008.
32. kurdistan second conference on Biological Sciences, University of Dohuk 6-8 May ,2008.
33. The Seventh Scientific Conference, College of Pharmacy ,Baghdad University,26-27 November,2008.
34. The 5th Scientific Research Outlook and Technology Development Conference,28-31, October, 2008. Fez-Morocco.
35. The first conference of Biotechnology Research Center /Nahrain University 23-24 , December, 2008.
36. The first Scientific Conference for Pure Science. University of Kirkuk, College of Science. February 24-25, 2009
37. Third Science College Conference, Baghdad University, 24-26 , March 2009.
38. The 9th Scientific Conference, College of Vet. Med. 31 March-1 April. 2009.
39. Frontiers of Chemical Sciences IV " Research and education in the middle east , Amman- Jordan, November.14-19 , 2009.
40. The Second Scientific conference . Genetic Engineering and Biotechnology Institute. November 4-5 .2009.
41. **The Sixth Scientific Conference of Pure Science , Baghdad/ college of Science , Al-Mustansiriya University , 9-10 /2 /2010.**
42. **The Kurdistan 3 rd Conference on Biological Sciences, University of Dohuk 4-6th May, 2010.**
43. **The Forth Medical Annual Conference, University of Karbala 8 May, 2010.**
44. **The forth Scientific Conference of Microbiology and Biotechnology, Basrah, 1-2 December 2010.**
45. **The Second conference of Biotechnology Research Center /Nahrain University 12, December, 2010.**
46. **International conference on Biotechnology for Better Tomorrow / Dr. Babasaheb Ambedkar Marathwada University, Sub-Campus Osmanabad, (M.S.)India. 6/2-9/2/2011.**
47. **The 12th Scientific Conference for Foundation of Technical Education . Baghdad, 28-29th March , 2011.**
48. **The First Scientific Conference on Biological Sciences Dept. Biology, Coll. Science, Univ. Kirkuk, 20-21 April, 2011.**
49. **1st Scientific Conference on Modern Technologies in Oil & Gas Refining 25-27 , April, 2011. Baghdad, Iraq.**

50. 7th Scientific Conference of Pure Science, Baghdad/ College of Science, Al-Mustansiriya University 4-5 May, 2011.
51. 4th The Scientific Conference of Salah Addin University- –Erbil , 18-20 October , 2011. Erbil, Iraq.
52. 1st Scientific International Conference of Genetic Engineering – Baghdad University, 23-24 November , 2011.
53. Frontiers of Chemical Sciences V " Research and education in the middle east , Paris- France, December .4-9 , 2011.
54. The 2nd Scientific Conference of Agricultural Sciences – Basrah University, 14-15 March, 2012.
55. The 11th Scientific Conference of Vet. Med. Baghdad University, 4-5 April, 2012 .
56. The First Scientific Studies Conference-College of Basic Education. Al-Mustansiriya, 17 April, 2012.
57. Third Scientific conference –College of Science-Diyala University, 6-7May,2012.
58. The Kurdistan 4th Conference on Biological Sciences, University of Dohuk 8-10th May, 2012.
59. The first National Conference of Chemistry – Baghdad University, 19-20 December 2012.
60. The Fifth International conference of microbiology and Biotechnology , Basrah University, 2-April. 2013.
61. The first international scientific conference –University of Zakho, 23rd -25th , 2013.
62. 12th International Meeting Thermophilus, University of Regensburg, Germany. 8-13 September 2013.
63. The first Scientific Conference for Applied Biotechnology /Nahrain University 30-31 , October, 2013.
64. Frontiers of Chemical Sciences IV " Research and Education in the Middle East , Malta, November .8-13 , 2013.
65. The Second International conference for Chemistry . Basrah University. 22-23, March ,2014.
66. The first scientific conference for health and medical disciplines in technical institutes.26-27,March,2014.
67. The first international Scientific Conference, Cihan University, 20-21 April, 2014
68. The first International veterinary conference in Kurdistan., Duhok University . 14-15 May, 2014.
69. The 44th Annual meeting German Society for Immunology. Bonn University. German. 17-20 September 2014.
70. The Second International Scientific Conference of Genetic Engineering – Baghdad University, 15-16 October , 2014.
71. The four Scientific Sciences for Biological Sciences, Al-Alam university college. Baghdad- 15-16 October, 2014.
72. The fourth international Scientific Conference college of Veterinary medicine university of Basrah.Basrah, 12-13, November, 2014.
73. The 2nd International Scientific Conference of Medical and Health Specialties. Baghdad, 24-26 March 2015.
74. The seventh Scientific Conference of Pure Science , Baghdad/ College of Science , Al-Mustansiriya University , 5-6 May, 2015.
75. The 8th Biotechnology Congress. Frankfurt, Germany. 18-20 August. 2015.
76. The 1st International Conference On Biology in Iraq . Baghdad University. 6-8 October. 2015.
77. Frontiers of Chemical Sciences IIV " Research and Education in the Middle East , Malta, November .15-20 , 2015.
78. The 3rd International Scientific Conference of Medical and Health Specialties. Baghdad, 23-24 March 2016.
79. The Fifthth international Scientific Conference college of Veterinary medicine university of Basrah.Basrah, 2-3, November, 2016.
80. The world congress &Expo on Biotechnology and Bioengineering , Dubai, UAE, 27-29 March , 2017.
81. The Third International Scientific Conference of Genetic Engineering – Baghdad University,

25-26 October , 2017.

82. The First International Scientific Conference of Biotechnology. 29-30 October, 2017.

83. The first International Scientific Conference of Science -21-22 November, 2017 Nahrain University,

84. Frontiers of Chemical Sciences IIIV "Research and Education in the Middle East, Malta, December.15-20, 2017.

85. The Conference and Iraq Forum of Inventors for Mazaya University College. /14-15 March , 2018.

86.The first Scientific conference of Applied research and Patient Inventors. Middle College University.17-18 April, 2018

87. INTERNATIONAL EURASIAN CONFERENCE ON BIOLOGICAL AND CHEMICAL SCIENCES 26 - 27 April 2018.Turkey. Ankara.

88. INTERNATIONAL PIONEERS OF INVENTION FORUM (IPIF) , Istanbul-Tukey 27-30/06/2018.

89. The first International Scientific Conference of IRAQI Academics Syndicate, Dohuk 11-12 Fed. 2019

90. The first National Exhibition of Patents and Industrial models in Anbar Province, AL-Marrif University College. 27th , April. 2019.

91. The 4th international conference for Advanced Biotechnology (FICAB) .29-30 April, 2019. Baghdad University.

92. 7th Annual International Conference on Chemistry 22-25 July 2019, Athens , Greece.

Teaching Experiences:-

1. Biochemistry for B.Sc. degree student 1990-1995;1999 - 2002.2006-2007.
2. Food chemistry for B.Sc. degree 1990-1995.
3. Instrumental Analysis for the master degree 1992-1995.
4. Advance Food Technology for doctoral students 1992.
5. Life molecular for master students since 1995 until 2017
6. Protein Chemistry and Engineering for the doctoral students since 1995
7. Regulation of metabolic pathways for doctoral students since 1995 until 1999.
8. Metabolic pathway for master degree since 1995 until 1999.
9. Enzymology for master degree and **High Diploma** since 1999 until 2007.
10. Application computer in biological science and genetic engineering for doctoral students since 1995 until 1999.
11. Statistics biology for master students since 1995 until 1998.
12. Chemical Biotechnology for master student, 1997.
13. Biotechnology for master student, 1998 until 2002
14. Biosapration , Bioproduct for doctoral students since 1998
15. Advance Biochemistry for master student, since 1999.
16. Metabolic pathway for doctoral students since 2000 until 2003.
17. Clinic Biochemistry for master student, 2003, 2005.
18. Secondary Metabolism for doctoral and Master since, 2003.
19. Topic in Biotechnology for doctoral and Master, 2007.
20. Microbial metabolism for Master degree, 2009, 2010.
21. Biochemistry for Master degree, 2017, 2018, 2019

Memberships in Societies:

Iraqi Societies:

- Syndicate of Agriculture Engineers.
- Syndicate of Iraqi Chemististe.
- IRAQI CENTER OF INNOVATION AND CREATIVITY

International Societies:

- Biochemical Society Transactions.
- The Biochemical Society.