

Curriculum Vitae

10/8/ 2019

Name: Hathama Razooki Hasan



Place of Birth: Baghdad –Iraq.

Gender: Female.

Current Citizenship: Iraqi.

Marital Status: Single.

Office Address: Chemistry Department / College of Science/
University of Baghdad /Jadryia /Iraq. Baghdad.

E-mail Address:

hathamahasan@scbaghdad.com
hathama.r@sc.uobaghdad.edu.iq
hathama2012@gmail.com

Languages:

Arabic (mother tongue).
English (very good).

Education:

B.Sc of Biochemistry /Baghdad University.
Ph.D. Biochemistry / Nottingham University / The
Queen's Medical Centre /Medical School,
Under Supervision of Prof. R.John Mayer & Prof.
Assist. David A. White.
Title of the Thesis: - Secretion Coupled Degradation.
Studies on Mammary Casein.

Current Accommodation:

Professor of Biochemistry since 15/1/2000.
Chemistry Dep. / College of Science / University of
Baghdad.

Previous Post:

**October 2008- November 2011: Head of Department.
Chemistry Department / College of Science /University
of Baghdad.**

Professional Membership:

**Iraqi Chemical Society.
Iraqi Innovation& Creativity Center.
The British Biochemical Society (United Kingdom).
American Chemical Society.
Iraqi National J. of Chemistry.
Advisory Editor Board / Journal of Karbala for
Chemical Sciences.
Editor Board / Oriental Journal of Chemistry.**

Teaching Courses:

- 1- For Undergraduate Students**
 - **General Biochemistry.**
 - **Clinical Biochemistry.**
 - **Selective Topic in Biochemistry.**
 - **Hormones.**
- 2- For Postgraduate Students
(Diploma, M.Sc. &PhD) in chemistry Department,
Biology, Department, Genetics Engineering Dep.,
Biotechnology Dep& Medical students:-**
 - **General Biochemistry.**
 - **Metabolic pathways & their regulation.**
 - **Clinical Biochemistry.**
 - **Clinical Nutrition.**
 - **Advanced Biochemistry.**
 - **Enzymology.**
 - **Hormones & Mechanisms of their action.**
 - **Informational Molecules.**
 - **Biochemistry of nucleic acids.**
 - **Biochemistry of cell membranes.**
 - **Minerals & Electrolytes in Biochemistry &
Clinical Biochemistry.**
 - **Glycoproteins.**
 - **Mammalian biochemistry.**
 - **Molecular basis of diseases.**
 - **Techniques in Biochemistry.**
 - **Protein engineering.**
 - **Selective topics in biochemistry.**
 - **Glycoconjugates.**

- Special topics in biochemistry.
- Oxidative stress in health and disease.

Research's Area of Interest

- Clinical Biochemistry: - Tumor markers, Enzymology and Hormones.
- Antibiotics Resistance.
- Causes of Infertility.
- Biochemistry of Parasites & Bacteria.
- Molecular biology.
- Tissue Engineering.
- Environmental Pollution & its Effects on different biochemical parameters in living organisms including human body.
- Oxidative Stress in health and disease.
- Extraction of different compounds from wastes for industrial & clinical uses.
- Molecular characterization of biomolecules.
- Natural products.

Thesis carried on under my supervision

MSc Degree

- 1- Purification of F₁-ATPase from *leishmania donovani* mitochondria and Studies of its characteristics.
By Waleed E.Shuker. 1990.
- 2- Studies on B-glycosidase from *Aspergillus's niger*.
By Methal. Al- Tae. 1990.
- 3- Study on L.donovani acetylcholine esterase.
By Shatha A.W. Abdul –Rahman. 1992.
- 4- Extraction of proteases from the parasite *L.Donovani* and studying some of its kinetic and physicochemical properties.
By Issraa A.Zainal. 1995.
- 5- Isolation and purification of plasma membrane of infective & attenuated clone of *L .donovani* Promastigote: - comparison & characterization of their proteins components.
By Zainab T.Ahmed. 1995

- 6- Purification of 5'NT from sera of kalazaric patients: -
Physiochemical and kinetics characterization of its isoenzymes.
By Eman A.S.Al-Rubae. 1996
- 7- Purification and characterization of cefotoxanase from
local clinical strain of *Pseudomonas aeruginosa*.
By Julanar Abdul –Sahib Al- Sharqi, 1999
- 8- Perspective study on adenosine deaminase activity in
sera of seventy one patients with bronchial asthma in
Baghdad.
By Buthiena M. Abdula, 1999
- 9- Study of Nitric oxide synthase in Kalazaric patients.
By Murshed A.Q Mohammed, 1999.
- 10- Study of ceruloplasmin & superoxide dismutase &
their relationship to some elements (Cu,Zn,Fe) in sera
of breast cancer patients.
By Suhad Falih 1999.
- 11- The relationship between some free radicals scavenge
enzymes and Lead environmental pollution.
By Rashed Taleb Al- Awsey 2000.
- 12- Evaluation of some Biochemical parameters in seminal
and blood plasma of infertile men.
By Enam Jalel Ena 2001
- 13- Superoxide dismutase iso enzymes and some trace
elements in the plasma of platients with breast tumor.
By Mohammed Hassan Al- Habal 2001.
- 14- Trace elements levels, superoxide dismutase and 5'NT
activities in tissues of women with breast tumors.
By Thikra Hassan Mathkor 2002.
- 15- Clinical evaluation of some Biochemical parameters in
brain tumors of benign and malignant origin.
By Manal Ezat Al- Bazaz. 2003.
- 16- Study of ceruloplasmin copper, Iron and other
analytes in patient with brain tumors.
By Shahla Shafeeq Al-Samaraie 2003.
- 17- Influence of ovarian cancer on some biochemical
parameters.
By Omar R.N. Al-Shykhly 2004
- 18- Alteration in DNA content & Dnase activities in sera &
tumors of women with ovarian cancer.

- By Yasmine Sami Nassir 2004
- 19- Biochemical study on EC-SOD enzyme in patients with brain tumors.
By Ali Waleed Numan. 2006
- 20- A study of Rnase enzyme in saliva samples from women with breast tumors.
By Yasser Abdul Hssain Jafar Al-Issa. 2007
- 21- Oxidative stress & male infertility.
By Duha Salim Namaa. 2008
- 22- Studies on peroxidases enzymes in sera and saliva of patients with different types of oral tumors and parotide gland tumors.
By Nuha N. A.W. Abou-Rahhma 2010.
- 23- A biochemical study on lead effect upon oil refinery workers.
By Zainab M. Dahham. 2010.
- 24- Radiation effect of mobile use & its towers on ceruloplasmin& some other biochemical parameters.
By Ali Mohammed Abbed. 2011.
- 25- Effect of emitted radiation from mobile phone & mobile stations on some biochemical parameters in human red blood cells.
By Ali Haneen. Dec.2011.
- 26- Extraction of cellulose from some industrial and plantswaste & its Hydrolysis using new heterogenous catalyst.
By Mona Soudi. 2013.
- 27- A biochemical study on ribonuclease enzymes (RNase) in saliva & blood sera of diabetic patients (A comparative study).
By Aymn Abdul-Sattar 2015.
- 28- Screening the presence of superoxide dismutase in different waste of plants.
By Alaa Nuhad. 2015.
- 29- Effect of different smoking methods on oxidative stress status in saliva & sera of Iraqi males.
By Rasha Jameel. 2017.
- 30- Iron status & its relationship to oxidative stress in liver cirrhosis male patients.
By Hiba Kasim. 2017.

- 31- **Thiol-disulfide homeostasis and its relation with some oxidative stress Thalassemia major patients.**
By Muhtada Ali. 2018.
- 32- **Study the Impact of Vitamin D Level on the Oxidative Stress Status and the Activities of Adenosine Deaminase and Peroxidases in a Sample of Iraqi Patients with Rheumatoid Arthritis**
By Ahmed Qasim Hwaidi 2019.

PhD. Degree

- 1- **Some Biochemical aspects in women patients with benign a malignant cervix and uterine tumors.**
By Shatha A.W.Al-Shammari. 2002.
- 2- **The values of certain Biochemical markers in the assessment of endometrial and cervical malignancies.**
By Eman Abd-Al-Wahab Al- Kaisy. 2003.
- 3- **Secondary Protein Structur's Predication using Statistical Methods.**
By Ali Abdul Hafith. 2004.
- 4- **Molecular characterization of CA125 in benign & malignant in ovarian tumors using immunoradiometric assay techniques.**
By Mjad Hassan Karbon. 2004.
- 5- **Phasphatase & Osteodystropy in chronic renal failure patients as related to oxidative stress.**
By Sura Ahmed Abdul Sattar. 2007
- 6- **Characterization of AFP & its 125 I antibody complex in ovarian cancer.**
By Nada Abdul Kareem Abu –Al Temman. 2007.
- 7- **Evaluation of the oxidative stress in myocardial infraction patients.**
By Suhad Falih Hassan Al- Aumary. 2007.
- 8- **Clinlcal evaluation of some biochemical parameters in patients with bone tumors.**
By Moad Omran Mossia. 6/8/2007.
- 9- **Synthesis of some new branched nucleosides analogues at C3 & study their effects on the alkaline phosphatase activity.**
By Ahmed Waheed Nasser Al- Asadi. 26/12/2007.
- 10- **Study of some biochemical changes in serum & saliva of patients with oral epithelial tumors.**

- By Rukzan Mohmmood Dauod. 28/1/2008.
- 11- Biochemical studies on Alpha Feto-protein in colorectal tumors.
By Bellal Jassar. 13/7/2008.
- 12- Biochemical & histochemical study of some parameters in sera & tissue of patients with mammary gland tumors.
By Suhad Rasheed. 15/7/2008.
- 13- Biochemical study on patients with gasterointintestinal diseases.
By Mouna Abdul Rada 7/10/2008.
- 14- Biochemical study in paients with different cancers.
By Rasha Hassan Jassim. 2010.
- 15- Extraction & partial purification of melatonin from plant wastes & its role polluted water treatment.
By Jwan Abdul Mohsin Zainulabdeen.
- 16- Ceruloplasmin ferroxidase & oxidase activities & other parameters in serum & saliva of celiac disease patients.
By Zahraa Ismal Abdul Kadhum.
- 17- The effect of Narrow band-UVB-phototherapy on some biochemical Parameters in sera of Vitiligo patients.
By Yasser Abdul Hussein Jaafer Al Issa. 2015
- 18- A comparsion of some biochemical parameters in sera & semen in male with Azoospermia & Oligospermia in Falluja City.
By Wissam Mohmood Mohammad. 2016
- 19- A biochemical & molecular study on some biomarkers of type 2 diabetic patients with & without retinopathy.
By Nuha Nihad A. Aburahma 2018
- 20- Some biochemical parameters related to the oxidative stress & immunity & their roles in male infertility.
By Suha Hanoon Hasan. 2019

Published Papers:

- 1- Extensive destruction of newly synthesized casein in mammary explants in organ culture.
Biochem.J. 1982. 202, 133-138 printed in Great Britain.

- 2- The effect of calcium on synthesis and degradation of mammary catabolic proteins and casein. *Biochemical & Biophysical Res. Comm.* 1981 vol. 103, No. 3, 934-943.
- 3- Comparison of collagen gels and mammary extracellular matrix as substrate for study of terminal differentiation in rabbit mammary epithelial cells. *Exp. Cell. Research* 1984, vol. 151, 519-532.
- 4- Secretion coupled degradation: studies in mammary Casein. *Biochim Biophys Acta* 1986 vol 889 ,No. 1, 49-58
- 5- Characteristic of protein degradation in liver and mammary gland. *Acta .Biol .Med. Germ.* 1981 vol 40, 1397-1406
- 6- Partial purification of B- Galactosidase from *Aspergillus niger*. *Iraq .J. Microbiology* .1990, vol 2(1), 42-51
- 7- Further Studies on B- Galactosidase from *Aspergillus niger*. *Iraq J. Microbiology* 1990 vol. 2 (1) 1990 51-64.
- 8- Purification and characteristic studies of F-AT pase from mitochondria of *Lieshmania Donovanii*. *Iraq J. of Chem* .1992, vol. 17(1).
- 9- *L. donovani* acetylcholine esterase. *Iraq. J. of microbiology* vol (1) 1998 .27-48
- 10 Surface protease(s) *L. donovani* infective and attenuated Promastigote. A Biochemical comparative study *Iraq J. Science* 1999 Vol. 40 (3) 65-81
- 11- Purification and characterization of cefotaximase from *Pseudomonas areaginososa*. *Iraq J. Pharm Sci.* 1999, Vol 10, 139-156.
- 12- A Biochemical kinetics studies on sera adenosine deaminase activity in patients with bronchial asthma. *J. of the Faculty of Medicine* 2000 vol 42 No. 1, 813-24.
- 13- Malic enzyme in *L. donovani* infective and attenuated Promastigote: Effect of coenzymes & cofactors. *Proceeding of Fifth Medical Conference of Medicine & Dentistry, Al-Anbar Health Institute.* 2000, 67-70.

- 14- **Diagnostic value of 5' NT in kalazanic patient.
J.Faculty of Medicine 2000**
- 15- **Effect of environmental lead exposure on some free radicals scavenging enzymes.
Iraq .J. of science. 2001, Vol.42A No.3, 49-62.**
- 16- **Correlation between plasma ceruloplasmin copper and environments pollution with lead.
J. medicine 2003, Vol.45 No. 403.**
- 17- **Evaluation of some individual antioxidant in seminal Plasma of fertile and infertile men.
J Fac.Med Baghdad 2005, Vol.47 No 2,190-195.**
- 18- **Effect of lead pollution on some erythrocyte antioxidant enzymes.
J Fac Med Baghdad 2004 Vol. 46, No. 3-4, 229-237.**
- 19- **Bronchial asthma and serum adenosine deaminase activity in Iraqi Patients.
J Fac Med Baghdad 2005 Vol. 47, No 4, 375-79.**
- 20- **Activities of some purine metabolic enzymes in sera and tissues homogenates of patients with different cervix and uterine diseases.
Med. J.Babylon 2005, Vol. 2, No. 4, 422-439.**
- 21- **Tissue nucleic acids content and the activities of their turnover enzymes (RNase and DNase) in patients with benign and malignant uterine tumors.
Med. J. Babylon 2005, Vol. 2, No. 4, 415-423.**
- 22- **Alteration in DNA content and DNase activities in sera and tumors of women with ovarian cancer.
Selected Research Papers 2005 Vol 5, 1-23.**
- 23- **RNases in sera and saliva of healthy and women patients with benign & malignant ovarian tumors-A comparative study.
Selected Research Papers 2005 Vol 5, 40-56.**
- 24- **Biochemical studies on acid & alkaline ribonuclease in sera of women with different ovarian tumors.
J.of Al- Nahrain University.2008. Vol. 10(2) pp54-60.**
- 25- **Effect of vit. E treatment on oxidative stress in some infertile male.**

- Proceeding of the 3rd Scientific Conference of the College of Science/Baghdad University /24-26 March 2009, 1597-1604.
- 26- Measurement of AFP in Germ cell ovarian cancer patients.
Proceeding of the 3rd Scientific Conference of the College of Science/ Baghdad University/24-26 March 2009, 1585-1595.
- 27- Using Chou & Fashman method (one direction Algorithm) to predict the secondary structure of pancreatic trypsin inhibitor protein.
Proceeding of the 3rd Scientific Conference of the College of Science/Baghdad University /24-26 March 2009.1584-1578.
- 28- Synthesis of some new branched nucleoside analogues at C-3` & study their effect on the alkaline phosphatase isoenzymes activity.
Proceeding of the 3rd Scientific Conference of the College of Science/ Baghdad University/24-26 March 2009, 1383-1393.
- 29- Detection of malignant human kidney lectins & study of its optimum hemagglutination conditions.
Proceeding of the 3rd Scientific Conference of the College of Science/Baghdad University /24-26 March 2009 .1563-1577.
- 30- Biochemical study on SOD in patients with different brain tumors.
Proceeding of the second conference of the institute of genetic engineering and biotechnology .4-11-2009
- 31- Determination of testosterone & cortisol levels in sera & saliva of patients with ovarian tumors (case –control study}.
Damascus University Journal of Basic Sciences.2009, No.2 Vol.25, 9-18.
- 32- Study of lipoproteins in patients with brain tumors.
Damascus University Journal of Basic Sciences.2009. No.2 Vol.25, 20-31.
- 33- Extracellular superoxide dismutase changes in patients with different brain tumors.
Iraqi J of Science 2009 Vol.50, No, 3, 1-7.

- 34- Isolation & characterization of sera adenosine deaminase, AMP deaminase & 5-NT forms from uterine tumor patients.
International Journal for Science & Technology (IJST}, 2010,.No.3.
- 35- Biochemical study on SOD in patients with different brain tumors.
Iraqi J.of Biotechnology. 2010 Vol.9, No.3, pp 191-201
- 36- Evaluation of lectin levels as new tumor marker for urinary tract and prostate.
J. of Kufa for chemical Science. 2010. Vol.1, No.1, 42-63.
- 37- The binding of AFP to its ¹²⁵I-antibody in tissues homogenates of some types of ovarian tumors. Part (1) Factors affecting the binding.
Iraqi J.of Biotechnology. 2010 Vol.9, No.3, pp .258-273.
- 38- A study of RNase enzyme in saliva samples from women with breast tumors.
Medical Journal of Islamic World Academy of Science.2011 Vol.19, No.1, 21-27.
- 39- Detection, Isolation & Characterization of Mannose Binding Lectins (Man BL) from Patients with Different Kidney Diseases &Healthy Individuals.
Pak. J.Chem. 2011, Vol.1, No.2, pp 1-11.
- 40- Study of some hydrolytic enzymes in sera & saliva of patients with oral epithelial tumors.
Rafidain J.of Science .2011.JuneVol.22.No.2. 11-29.
- 41- Alteration in lipid peroxidation &some trace elements concentrations in sera & tissues homogenate of cervix & uterine tumors.
Jordanian journal of chemistry.Dec.2011, Vol.6, No.4, 453.
- 42- Serum lipid peroxidation & trace elements levels in ovarian cancer patients before &after Cisplatin doxorubicin Chemotherapy.
Journal of Education College/ Al- University Musttansryia 2011 No. 5, 119-35.
- 43- Spectroscopic characterizations of alpha- feto protein binding with its antibody by IRMA method in tissues homogenate of some types of ovarian tumors.

- Iraqi Journal of Science, 2011, Vol.53 (3), 272-281.
- 44- Isolation of alpha-fetoprotein from colorectal tumors homogenate & optimizing the binding conditions with its ¹²⁵I antibody.
Proceeding 7th International conference of Biological Science (zoo.) Tanti University, 2012, 146-153.
- 45- Salivary ceruloplasmin ferroxidase & oxidase activities in celiac patients.
International Journal of biomedical sciences. 2012, Vol.8, No.3,
- 46- A biochemical study on lead effect upon oil refinery workers.
Asian Journal of Chem.2012, Vol.24, No.12, 3012.
- 47- Evaluation of certain biochemical changes in celiac patients.
American Journal of Biochem.Mol.Biol. 2012, Vol.2, No.4, 216-226
- 48- Study of peroxidase enzymes & related trace elements I sera & saliva of patients with oral tumors.
Asian J of chem. 2012, Vol.24, No.12,
- 49- Superoxide dismutase is enzymes activities in plasma &tissues of Iraqi patients with breast cancer.
Asian pacific J.of cancer prevention, 2012 Vol.13
- 50- Salivary ceruloplasmin ferroxidase & oxidase activities in celiac patients.
International Journal of Biomedical Science. Sep.2012 Vol.8, No.3,
- 51- A biochemical study for evaluation & analysis of serum proteins of patients with different kidney tumors.
J. Baghdad for Science 2012 Vol.9 (2), 311-322.
- 52- Evaluation of tissue 5 Nucleotidase as tumor marker in breast & brain tumors using receiver operating characteristic curve.
J.of cancer research &therapy.2013, vol.1 (10), 221-225.
- 53- Assessment of salivary & serum proteins in patients with oral tumors.
J. of Baghdad for science .2013.vol.1 (10) .934-944.

- 54- Novel method for extraction of cellulose from agricultural & industrial wastes.
Chemical Technology: An Indian journal, 2014, Vol.9, issue 4,148-153.
- 55- Electrophoresis profile of total peroxidase in saliva & sera of patients with different oral tumors.
Oriental. J. Chemistry.2014, Vol.30 (1) 80-86.
- 56- Effect of emitted radiation for mobile phone & its base station antennae on some biochemical parameters in human red cells.
IJSER 2014.Vol.5, issue 3,965-969.
- 57- Cellulose hydrolysis over silica modified with chlorosulphonic acid in one pot synthesis.
Applied Catalysis A: General 2014. Vol.476, April. (20), 228-234.
- 58- Evaluation of proteins levels changes in saliva & sera of oral squamous cell carcinoma patients.
J. of Baghdad for Sci.2014.Vol.11 (2)
- 59- Early detection of kidney cancer: Biochemical assay using new & sensitive tumor marker.
J.of applicable Chem.2015, Vol.4 (1) 144-153.
- 60- What is the new tumor marker for detection of different kidney tumors? A study on isolation, purification & characterization of galactose binding lectin from sera of patients with kidney cancer.
JBEMI .2015, Vol.2, Issue 1, 1-18.
- 61- Evaluation of the effect of NB-UVB phototherapy on thyroid function in sera of Vitiligo patients.
Iraqi National J.of chemistry.2015 (2), 97-102.
- 62- Effect of NB-UVB phototherapy on total protein, albumin & globulins in sera of Vitiligo patients.
Iraqi J.of Biotechnology 2015, Vol.14 (2)319-404.
- 63- Evaluation of relationship between some biochemical parameters & osteodystrophy in patients with chronic renal failure.
IJBB 2015, Vol.52, June-August, 239-247.
- 64- Influence of Diabetes disease on conc.of total protein, albumin & globulins in saliva & sera "a comparative study"
Iraqi National J.of chemistry.2015 (1), 1-11.

- 65- **Heavy Metal Pollution & Male Infertility in AL-Falluja City.**
Baghdad Science Journal, 2016.Vol.13 (4), 819-829.
- 66- **Determination of Lead Metals in Roadside Plants in some of Baghdad High Ways /Iraq.**
Journal of Chemical & Pharmaceutical Research.2016, Vol.8 (4)186-191.
- 67- **A comparison of some biochemical parameters in sera & semen of fertile & non fertile male in Fallujah city.**
JEGET, 2016, March- May, Sec.A, Vol. 5(2), 203-210.
- 68- **Oxidative stress status in sera and saliva relevance to alcoholic and non- alcoholic fatty liver disease in Iraqi patients.**
RJPBC, 2017.Vol.8 (3), 1465.
- 69- **Oxidative stress status, Nitric oxide, Peroxy nitrite level in serum & saliva of Iraqi smokers.**
RJPBC, 2017.Vol.8 (3), 1414
- 70- **Salivary & Serum Alpha-Amylase Activity & Their Correlations with Oxidative Stress Index among Different Iraqi Smokers Groups.**
MOJ. Addiction Medicine &Therapy.2017, Vol.4, Issue 1
- 71- **Proteins Level in Sera & Saliva of Type 2 Diabetic Iraqi Patients with & Without Proliferative Retinopathy.**
Oriental Journal of Chemistry.2017, Vol. 33(6), 2776-2786.
- 72- **Purification & characterization of TRACP from sera of patients with chronic renal failure.**
J. of global pharm. Technology 2018, 10 (03), 257-271, .ISSN- 0975-8542
- 73- **The association of some cytokines, ceruloplasmin oxidase activity & copper concentration in male infertile patients.**
J. Pharm. Sci. & Res. 2018, Vol. 10(12), 3321-29.
- 74- **Iron & its related parameters in serum & saliva of Iraqi patients with non- alcoholic & alcoholic liver disease.**
MOJ eddiction Medicine & Therapy.2018, Nov. 26, Vol. 5(Issue 6) 249-253.

- 75- Ferric reducing capacity & OS. Index in sera & saliva of Iraqi patients with homozygous beta Thalassemia major.
Iraqi National J. of Chemistry.2018 vol.18 (2), 93-
- 76- Different ferroxidases activities in sera & saliva of Iraqi patients with beta Thalassemia major.
J. of global Pharm. Technology.2018, Vol. 10 Issue 1, suppl.(1) ,698-703.
- 77- Oxidative stress status in sera & saliva of type 2 diabetic Iraqi patients with & without proliferative diabetic retinopathy.
Asian J. of Chemistry.2019, vol.31 (3), 719-722.
- 78- Alteration in serum & saliva alpha- amylase activity & level of some hormones associated with exposure to chemicals: A case study on Iraqi undergraduate chemistry students.
Asian J. of Chemistry 2019 Vol.31, (2), 410-416.
- 79- Sulfhydryl oxidase concentration & its correlation with semen parameters in Iraqi infertile male.
Biochemical & Cellular Archives.2019 Vol.19 (1), 91-95.
- 80- Effect of some heavy metals as pollutant on male infertility in Fallujah city.
Research Journal of Chemistry & Environment. 2019 Vol.23 (Special Issue 1) May, 77-81

Published Book:

- 1- Chemical and Functional Aspects of Biological membranes.
- 2- Book for the secondary nursing school.

Patents:

- 1- Iraqi patent with number 4492 dated 1/3/2016
- 2- Iraqi patent with number 4512 dated 20/3/2016
- 3- Iraqi patent with number 5349 dated 24/4/2018

Conferences:

- 1- Attended more than 35 conferences locally and abroad in different subjects of biochemistry.
- 2- Attended more than 10 workshops in chemical safety and security.

3- Organized and gave lectures in CSS subject inside Iraq.