

Curriculum vita

Name: Ashraf Zakaria Mahmoud

Birth date: July, 2, 1969

Citizenship: Egyptian

Marital status: Married + 3 children's

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Address:-

1- Work

Urology and Nephrology center, Mansoura University, Mansoura,
Egypt.

2- Home:

36 Samy El-Gamal street, Mansoura, Egypt.

Membership: Egyptian syndicate of scientist's since 1993.

Position: Fellow of medical analysis and molecular biologist; Urology and Nephrology center; Mansoura University; Egypt.



Scientific degrees

1. BSC in science (Biology) in 199.

Score: 75.6 %.

Mansoura university – Faculty of science – Egypt.

Department: Zoology and Chemistry.

2. Master degree in 1997

Mansoura university – Faculty of science – Egypt.

Branch: Histochemistry.

Title: -Mucine histochemistry in adenocarcinoma of bilharzial urinary bladder.

3. PhD in 2006

Mansoura university – Faculty of science – Egypt.

Fine specification: Molecular Biology.

Title:- Significance of DNA fingerprinting in evaluation of carcinoma of the urinary bladder.

Academic and scientific activities

A= Lecturer of: Cytology, Genetics, Cytogenetics, Genetic Engineering, Molecular biology and Cell biology from 2006 till 2010.

Post graduate students –Science Collage -Mansoura University Egypt.

B= Lecturer in the 1st international workshop on basic techniques in molecular biology & cell biology.

22-26 September, 2013, Urology and Nephrology center, Mansoura University-Mansoura – Egypt.

C= Training course on " Laboratory Risk Management" from U.S. Naval Medical Research Unit No.3 (NMRU.3), Cairo, Egypt. 28-30 September, 2013, Urology and Nephrology center, Mansoura University-Mansoura – Egypt.

D= Participated in the forum graduates of the faculty of science in 2016.

E= Participated in the First scientific meeting of zoology. Under the banner of: Science and Visions of the Future. 16 February 2015.

F= Attended the 4th International conference of biological and environmental science (ICBES). Mansoura and Hurghada 24 – 28 March, .2014
Mansoura university- faculty of science- Mansoura, Egypt.

G= Thesis's supervision

a- Master degrees supervisor,

1-Title: Effects of different reinforcing materials of complete heat cured acrylic bases on oral epithelial cells and surface roughness.

Faculty of Dentistry-Mansoura university - Egypt.

2-Title: The relation between increased consumption of nitrate polluted drinking water and incidence of diabetes mellitus.

Faculty of science -Mansoura University-Zoology department - Egypt.

3-Title: Biological markers of human bladder cancer patients.

Faculty of science -Mansoura University-Zoology department - Egypt.

4-Title: Detection of bladder cancer and renal tumors from urine samples by random amplified polymorphic DNA fingerprint.

Faculty of science -Mansoura University-Biochemistry department Egypt.

5-Title: Comparative protective effects of some natural products on the development of breast cancer in rats.

Faculty of science -Mansoura University-Zoology department – Egypt.

6-Title :Human breast cancer characterization by random amplified polymorphic DNA fingerprint analysis.

Faculty of science -Mansoura University-Biochemistry department - Egypt.

b –Ph.D. degrees supervisor,

1-Title: The antitumor effect of a natural agent on liver cancer.

Faculty of science -Mansoura University-Zoology department – Egypt.

2-Title :Molecular ,immunohistochemical and tumor markers for characterization of Human ovarian cancer.

Faculty of science -Mansoura University-Zoology department – Egypt.

3-Title: Evaluation the role of Costus igneous on repairing of insulin gene of diabetic mother's rats and their offsprings.

Faculty of science -Mansoura University-Zoology department –Egypt.

4-Title :Stem cells therapy against biological effects resulting from gamma radiation exposure in male rats.

Faculty of science -Mansoura University-Zoology department –Egypt.

Academic courses and programs

- Management University programme
- applying programme. -Academic standards for educational
- Exams and Students evaluation systems programme.
- Presentation skills programme.
- Conference organization programme.
- International publishing of scientific research programme.
- Academic staff member preparation course.

Lab experiences

From 1993 till now; I am still working in the routine& research labs of Urology & Nephrology center, Mansoura University, Mansoura, Egypt; including:

Clinical chemistry labs, Hematology labs, Histopathology lab, Histochemistry lab, Immunohistochemistry lab, and Molecular pathology lab.

A- Clinical chemistry experiences:-

- Determination the values of serum {creatinine , blood sugar, Na, K, BUN, Ca, Phosphorus, Uric acid, Cholesterol, Iron, LDL, HDL, Tri glycride, bilirubin, Albumin, Globulin, ALT, AST, Alkaline phosphatase} by using of auto analyzer and performing of auto analyzer calibration and quality control.
- Total protein in urine
- Using of blood gases apparatus ABL 710, 200 and Roch; and performing the calibration.

B- Blood banking & Hematology experiences:-

- Blood cross matching microscopic (manual) and by micro typing cards.
- Performing blood groups and Rh factor.
- Plasma and platelets separation.
- Applying complete blood picture (CBC) by automated blood coulter including RBCs and Platelets count, total Hgb, Hct, MCV, MCHC.
- Performing WBCs differential.
- Performing prothrombin and time conc.
- Performing Erythrocyte Sedimentation Rate.

C- Histopathology experiences:-

- Dissecting the separated organs and taking many sections from the suspicious areas.
- Labeling each sample and processing it in automated tissue processor (VIP, Tissue-Tek, Japan).
- Paraffin blocks preparation for each section by blocks forming apparatus (Sakura, Tissue-Tek, Japan).
- Cutting of tissue blocks by microtome (Reichert Jung 2030, West Germany) at 2 μ m and picking up the selected sections on glass slides.

- Staining of sections by HX&E.
- Cutting of frozen sections with cryostate (Leica) and staining it by HX&E.
- Preparation of electron microscope blocks by resin, cutting the blocks by ultra microtome (Leica) and staining it by toluidin blue.
- Applying immunofluorescence staining of frozen tissue sections and aspiration (ANCA, ANA, and Anti DNA).
- Using of immunofluorescence microscope.
- Applying of voided urine, bladder wash and any fluid cytology by Cytospin and staining it by Papanicolaou's stain.

D- Histochemical experiences:-

- Preparation of different stains and staining of tissue sections with it, like; Haematoxyline, Eosin , Masson tri chrome, PAS, Silver, Oil Red O, Gordon , Gemsa, Alcian blue and Congo red, Prussian blue and PTAH (Phospho tungestic acid haematoxyline).
- Preparation of decalcifying solutions.
- Preparation of most of tissues fixatives.

E- Immunohistochemical experiences:-

- Preparation of coated slides.
- Cutting of blocks and fixation of sections on coated slides.
- Antigenic retrieving (enzymatic, microwave and Pascal Vacuum pressure).
- Immunochemical staining by using of different antibodies manually or instrumental (Shandon sequenza for immunostaining).
- Using of high number of antibodies like:-Vimentin, C-myc, Nmyc, S100, CD (group), Reticuline, GFAP, Cytokeratin, p53 and EGFR.

F- Molecular experiences:

#- DNA analysis:

1-Preparation of all buffers and stocks concerned with molecular biology applications.

2-Tissue homogenization by all types of homogenizer.

3-DNA extraction from any source:-animal, plant, bacteria, and human{ tissue (frozen, fresh and paraffin blocks) or fluid} manually or by kits.

4-DNA purification manually by using of manually prepared PCI (phenol chloroform iso amyl alcohol).

5-DNA precipitation by different solvents.

6-DNA quantitation by using of spectrophotometer.

7-Sterilizing the PCR area.

8-PCR processing by using of separated components or ready to use master mix.

9-Dealing with thermal cycler for PCR reaction optimization.

10-PCR product purification from gel or from soln.

11-Gels preparation; Agarose {high or low melting point} or poly acrylamide {denaturing or none denaturing}.

12-DNA transcription.

13-DNA fingerprinting to differentiate between the normal and tumor tissue including:

A- SSCP analysis with silver staining kit.

B- RAPD analysis and selection of the suitable primer from the random primers kit.

C- RFLP analysis of genomic DNA or PCR product including:

- Restriction enzymes endonuclease digestion and optimizing their reaction like: Hind III, EcoR I, Sal I, Xba I, Kpn I, BamH I, Pst I, BssH I, Hinf I, Not I and Sty I.
- Solid media preparing and sterilizing.
- Bacterial culture purification.
- Bacterial samples inoculation in both liquid and solid media.

◆ DNA Cloning:

- Ligation of vector and DNA insert by using of cloning kit.
- Preparation of competent cells.
- Transformation of competent cells by recombinant DNA.
- Ampicillin selection.
- Blue white screening.
- Extraction and purification of recombinant DNA from Competent cells by Large scale preparation of crud lysates of plasmid DNA.
- Alkaline lysis mini prep.
- Crud method.
- Recombinant DNA purification from agarose by Wizard PCR prep DNA purification system.
- Recombinant DNA sequencing Instrumental by ABI Prism3100 sequencer & Manual by silver staining kit.

RNA analysis:

- RNA extraction: Total RNA extraction from any source.
- mRNA extraction from any source manually or by kit.
- RNA reverse transcribtion into complementary DNA (cDNA)

Protein analysis:

- Protein extraction from tissue (frozen, fresh, paraffin blocks).
- Protein quantitation by spectrophotometer.
- SDS-PAGE gel preparation.
- SDS-PEAGE gel electrophoresis.
- SDS-PAGE gel staining.
- Electrophoretic transfer of an SDS gel to nitrocellulose membrane.
- Immunostaining of nitrocellulose blots.
- Western blot analysis.

Soft wares and data base experiences

Dealing with: Microsoft word, Office XP &98, Microsoft Excel, Microsoft power point, Ward art, SPSS for statistical analysis, Photoshop and Internet.

Publications

1-Ahmed M. Abdeen; Mahmoud A. EL-Baz* and Ashraf Z. Mahmoud* (1998): Mucin histochemistry in adenocarcinoma of human bilharzial bladder. Journal of Egyptian German Society of Zoology. Vol. 26(C), Histology & Histochemistry, 53-85.

2- A.M. El-Waseef ^{1(*)}, I.M. El-Dosoky ², M. Radwan ³, A.M. Zakaria ⁴, N. El-Kholy ⁵ and A.M. Attallah (2010): Immunochemical identification of an epithelial membrane antigen in patients with bladder cancer. Biochem. Lett., Vol. 5, PP. 1-17.

3-El-Shaheed N; El-Khodary M; Gomaa A and Zakaria A (2011): Impact of reinforced heat-cured acrylic resin denture bases on oral epithelial cells (DNA analysis). Egyptian Dental Journal, Vol. 57, No. 1.

4-Mona Al sayed Taha Denewer ^{*}; Mohamed El-Awady Grawish ^{**}; Fatma Mohamed Mohamed Ibrahim ^{**}; Heba Mahmoud Ahmed El-Sabaa ^{**} and Ashraf Zakaria Mahmoud ^{***} (2011): Postnatal Chronological Expression of Stem Cells in Mouse Submandibular Salivary Gland (Immunohistochemical Study). Egyptian Dental Journal, Vol. 57, No. 1. PP. 425:435.

5-Mohamed Al-Khodary Saad Eldeen;⁽¹⁾ Ashraf Zakaria Mahmoud; ⁽²⁾ Mohamed M. Faud; ⁽³⁾ Mohamed Ezat Elsaed ⁽⁴⁾ and Alfalal AA⁽⁵⁾ (2011): A comparison Between Effect of Reinforced Denture With Titanium Oxide Versus Zirconium Oxide on DNA Changes and Flexural Strength. Cairo Dental Journal, Vol. 27, No. 2, PP 477: 490.

6-Mohamed El-Far^{1*}, Hasan Abol-Enein², Ashraf Zakaria³ and Mohammed El-Gedamy⁴ (2013): Detection of Genomic Instability in Renal Cancer by Random Amplified Polymorphic DNA analysis from Urine Samples as a Non-invasive Method: Potential Use in Diagnosis. *Cancer Science & Research*: open Access.

7-Wafaa El Kholy, Hanaa Serag, Ashraf Zakaria and Aziza El Metwaly (2013): The Potency of Some Natural Products on Dimethyl Benz(A) antheracene (DMBA) Induced Hepatotoxicity in Rates. *The Egyptian Journal of Hospital Medicine*, Vol.53, Page 1036 – 1048.

8-Azza M. El-Wakf , Hanaa A. Hassan, Ashraf Z. Mahmoud and Marwa N. Habza(2014): Fenugreek potent activity against nitrate-induced diabetes in young and adult male rats. *Cytotechnology Journal*, ISSN 0920-9069, DOI 10.1007/s10616-014-9702-7 .

9-Mohamed El-Far^{1*}, Hassan Abol-Enein², Ashraf Zakaria³ and Mohammed El-Gedamy³ (2014): Evaluation of nitric oxide and malondialdehyde levels in serum of Egyptian patients with bladder and renal tumors: Potential use as medicinal biomarkers. *World Journal of Pharmacy and Pharmaceutical Sciences*. Volume 3, Issue 6, 87-101.

10-Mohamed El-Far^{1*}, Hassan Abol-Enein², Ashraf Zakaria³ and Mohammed El-Gedamy³ (2013): Application of random amplified polymorphic DNA-PCR technique in early diagnosis of bladder cancer using urine samples. *Current topic in biochemical research*. Vol. 15, 2.

11- A. M. Abdeen; A. Z. Mahmoud*; S. R. Abd Alaziz**; and M. A. Esmail*** (2015): Histological and histochemical studies on human urinary bladder cancer. *Journal of Environmental Sciences*, Vol. 44, No. 1 : 113-127.

Refers

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Thanks

Dr/ Ashraf Zakaria

Ph.D. molecular biology,

Fellow of medical analysis; & Molecular biologist.

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