1		**Personal data**	

		Mohammed Abdullah Mohammed Al-Omair	Name
		Al-Hassa, 1968	Date and place of birth
		Married	Marital status
		P.O.Box: 380, Al-Hassa; Al-Hofuf 31982	Address

2		**Educational**			

Date	Award place	Specialization	Degree	
2001	Akron University; Ohio; USA	Biochemistry, Nanomaterials	Ph.D	
95	New Mexico Stat University; USA	Biochemistry; Toxicology	M. SC.	
88	King Faisal University	Chemistry & Biology	B.SC.	

3		**Specialization and research interest**	

- Studying the biological effects of Polyamines and their roles in some biological functions and diseases.
- Biochemical study on the effect of Selenium on polyamines metabolism.
- Cloning, purification and biochemical characterization of L- asparaginase from *E. coli* strain W311
- Extraction of Lipaze enzyme from local microorganism of highly heat resistance for detergents manufacture.
- Synthesis of nanofibers of biocompatible polymers by electrospinning technique for heavy metal and hazardous organic compounds removal and for biomedical applications.
- Exploring new applications for electrospun nanofibers.
- Removal of Phenol and Resorcinol via Adsorption on Activated Carbons Synthesized from Solid Wastes.

4		**THESIS TITLE**
		Accumulation and Excreation of Common and Uncommon Polyamines Induced by Toxic metal Ions in *Cyanidium Caldarium*.

5		**Ph. D. Title**	
		DISSERTATION TITLE	
		The Use of Linear Polyethyleinimine Nano-fibers in Chemical Warfare Protective Clothing and Wound Dressing Applications.	
		Abstract: Linear polyethylenimine (L-PEI) nano-fibers with a uniform diameter of <1·m and The fibers of L-PEI were also cross-linked with 1,4-butanediol diglycidyl ether were produced by electrospinning technique. The cross-linked fibers were insoluble in all solvents. L-PEI fibers were further improved for use in two different areas, protective clothing and wound dressing applications. The fiber's activity as protective clothing materials was enhanced by spuning L-PEI with Cu(II) and/or branched polyethylenimine (B-PEI) with the cross-linking agent in ethanol solutions. In addition to the known competence of amines and Cu(II) in available nerve gas decontaminants, these fibers also possess high surface area making them more effective materials in detoxifying nerve gases. Moreover, partial acidic hydrolysis of poly(ethyl-oxazoline) (PEOZ) was performed to produce a water-soluble poly(ethyl-oxazoline-ethylenimine) (PEOZ-EI). A successful spinning of PEOZ-EI with fluorescent albumin was produced from a water/ethanol solvent and confirmed by optical micrographs. It was the first time for a protein to be tested in fibers. Furthermore, the positive spinning of albumin with PEOZ-EI proves the possibility of incorporating organophosphorus hydrolase (OPH) in the same fibers. Adding the most effective nerve gases- hydrolyzing enzyme (OPH) to an active material, such as cross-linked PEOZ-EI fibers, will boost the detoxification activity. These fibers can be spun directly on cloth fabric, embedded, or sandwiched between two layers of fabric to be used in protective clothing. Composite hydrogel wound dressings were accomplished by electrospinning polycaprolactone (PCL) with L-PEI. Both polymers were spun together from an acetone/ethanol solvent and produced one single fiber. When labeled L-PEI was mixed with unlabeled PCL in acetone/ethanol spinning mixture, all the fibers became fluorescent. The water uptake (WU) and the equilibrium water content (EWC) of PCL, L-PEI, and two ratios of PCL/L-PEI composite fibers were measured in deionized water and saline. The fibers, when saturated with water, formed a three-dimensional gel with high absorbance capacity. Moreover, supplementing alginic acid or polyacrylic acid to these fibers enhanced their absorbance capacity. These composite fibers can be used for most dermal treatment applications, especially burns and wounds.	
6		**Academic Appointments**	

Name & Address of Employer	Position or Rank	From Year	To Year
University of British Colombia, Canada.	Visiting professor	July, 2007	Sept. 2007
King Faisal University. KSA.	Vice Dean of College of Science	2005	2007
College of Science, King Faisal University. KSA	Chairman of Chemistry Department	2004	Present

7		**Administrative work and commissions**	

		Indefinite administrative work / Commissions and tasks	From/to
	1	Visiting Professor, University of British Columbia - Vancouver – Canada	July-Sept. 2007
	2	Director of the Quality Assurance Office of college of Science	2007 - now
	3	Vice dean of college of Science	2005
	4	Member of permanent committee of academic affairs	2005
	5	Member of permanent committee of admission and registration	2005
	6	Member of permanent committee of security and safety	2005 - now
	7	Member of permanent committee of academic accreditation	2005
	8	Head of Chemistry Dept. of College of science	2004-now
	9	Member of permanent committee of academic programs plans and school systems	2009-now
	10	Coordinator of academic accreditation for chemistry department	2009-now

8		**Research activities**	

		Published Paper	
		1. Adel A. Fathi and Mohammed A. Al-Omair. Effects of pH on toxicity of cadmium, cobalt and copper to *Scenedesmus bijuga*, Protistology 4(3),221-226 (2006).	
		2. A A Mahmoud, M A Al-Omair, M Iinuma. Anew germacranolide-type sequiterpene lactone from *Tanacetum santolinoides*. Nat Prod Res. 2007 Feb ;21 (2):156-60 17365703	
		3. Magdy M. Youssef, and Mohammed A. Al-Omair. Cloning, Purification, Characterization and Immobilization of L-asparaginase II from *E coli* W3110.Asian Journal of Biochemistry, 2008. ISSN 185-9923.	
		4. Mohammed A. Al-Omair, and Magdy M. Youssef. Biochemical Studies on the Effect of Selenium and -Difluromethylornthine on the elevated Polyamines in mice. Journal of Biological Sciences 8 (7): 1149-1157, 2008. ISSN 1727-3048.	
		5. Mohammed A. Al-Omair. Detection of Adenosine in Biological Samples at Nanostructured Carbon Fiber Sensors. Arabian J. Chem. Vol. 1, No. 3, 295-306(2008).	
		6. Mohammed A. Al-Omair. Selenium and alfa- difluromethylornthine in combination have strong activity against elevated polyamines and glucose levels in serum. Asian Journal of Biochemistry, 4 (1): 22-29, 2009. ISSN 1815-9923.	
		7. M. A. Al-Omair And E. A. El-Sharkawy. Removal of Heavy Metals via Adsorption on Activated Carbons Synthesized from Solid Wastes. *Environ. Technol.*, Vol. 28, pp. 443-452 (2007).	

		8. Mohammed A. Al-Omair. Catalytic Oxidation of CO pollutant over NiO induced by some transition metal oxides. Arabian J. Chem. Vol. 1, No.2 61-71 (2008).	
		9. M. A. Al-Omair And E. A. El-Sharkawy. Removal of Phenol and Resorcinol via Adsorption on Activated Carbons Synthesized from Solid Wastes. Egyptian Journal of Chemistry 49 (3), 357-369 (2006).	
		10. Hany M. AbdelDayem, Mohammed A. Al-Omair. Phase Composition and Catalytic Activity of α -NiMoO4 Reduced with Hydride Anion. *Ind. Eng. Chem. Res.*, 47 (4), 1011 -1016, 2008. 10.1021/ie070793z S0888-5885(07)00793-2.	
		Accepted papers	
		1. Youssef, M. M., Al-Omair, M. A., Afkar, E. and Picksley, S. M. Genetic characterization of *E.coli* ReeN Protein as a member of the SMS family of proteins. Arabian J. Chem. Vol. (2010).	
		Papers submitted to arbitrated conferences	
		1. Abd el dayem, Hany; Al-Omair, Mohammed; Almutairi, Aid. Selective Hydrodechlorination of 1,2-Dichloroethane to Ethylene over Pt-Cu/C Catalyst Synthesized by reduction with H- anion. Oral presentation at the Catalysis in Refining & Petrocehmicals Session of CHEMINDIX, Manama, Bahrain, 2007.	
		2. Al-Omair, Mohammed Frank Ko Electrospinning of Bioresorbable Polycaprolactone/Silver Nanocomposites for Wound Dressing. Poster at 8th World Biomaterials Congress. European society of Biomaterials, Amsterdam, Netherlands May, 2008.	
9		**Current Researches**	

		Research title	Financial support
		Overexpression, biochemical characterization and immobilization of lipase from thermophilic microorganism isolated from Saudi Arabia environment.	King Abdel-Aziz City of Science and Technology
		Production of nanofibers with super absorbitivity from Ag/polycaprolactam using electrospining and its uses as a wound dressing	Deanship of scientific research; KFU
		Using phage display biotechnology to identify the polypeptide active chain partners of HtpG protein to be used as an antitumor therapy.	King Abdel-Aziz City of Science and Technology and deanship of scientific research; KFU

10		**Participate in scientific conferences and symposia**	

Conference	Name of Organization	The place, date	Extent of participation
2nd International Conference on Advanced Heart Sciences (The King of Organs, 2008)	Prince Sultan cardiac Center, Intercontinental.	Al Ahsa, Oct. 2008	Attendance

Workshop on Biotechnology "Strategic Point view"	Saudi Society of Biotechnology	Taibah University, Madinah, 2008	Attendance
Workshop on Bio Banks ... Ethic Issues.	National Committee of Bio & Med. Ethics, King Faisal University- College of Science-Chemistry department	Riyadh 2008	Attendance
NANO Conference 2009	King Saud University	Riyadh 2009	Attendance
Tibah International Chemistry Converence 2009	Taibah University	Al-madinah al-munawarah 2009	Attendance
International conference of Nanotechnology: Opportunities and Challenges.	King Abdullaziz University.	Jeddah 2008.	Attendance
8th World Biomaterials Congress.	European society of Biomaterials	Amsterdam, Netherlands May, 2008	Participation
2nd Multifunctional Nanocomposites & Nanomaterials: International Conference & Exhibition	American university and European Union.	Sharmalshaikh, Eygept, Jan, 2008	Attendance
Second national conference for Quality Assurance	National Commotion for Academic Accreditation and Assessment	Alkhober 2007	Attendance
Third Conference for Science	King Saud university	Riyadh 2006	Attendance
Nanotechnology and outlook for its uses in industry	Arab organization for industrial development and mining	Morocco 2006	Attendance
First International conference on Chemistry	Egyptian Chemical Society	Sharmalshaikh-Egypt 2006	Participation
Nanotechnology Meeting	King Abdul-Aziz City for Science and technology	Riyadh 2006	Attendance
Workshop on Laboratory Safety and Hazardous Chemicals	King Faisal University- College of Science-Chemistry department	AlAhssa 2005	Preparation and Participation
Worshop on NMR	Gulf Scientific co.	Dubai, 2004	Attendance
International Conference on chemistry and Industry	King Saud University	Riyadh 2004	Participation

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