|  |  |
| --- | --- |
| **Name** | **Saeed Abdulrahman Alharthi** |
| **Nationality** | **Saudi** |
| **date of Birth** | **14th August 1969** |
| **Contact Address** | _DSC0166Umm Al-Qura University  Faculty of Medicine Department of Medical Parasitology P.O. BOX 13955 Makkah  Saudi Arabia  PHONE: +966 (02) 6561029 Fax: +966 (02) 6561029  Mobile: +966 (0) 500 77 9000  E. mail: [sasharthi@uqu.edu.sa](mailto:sasharthi@uqu.edu.sa) |
| **Current Position** | Associate professor, Medical Parasitology Department, Faculty of Medicine, Umm Al-Qura University, Makkah, Saudi Arabia |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | **Education Backgroung** | | |  |  | | --- | --- | | September 1985-July 1987 | Abu-Bakor Al-Sadiq High School, Taif, KSA | | September 1987-June 1988 | Orientation year (king Fahad University of petroleum and Minerals, Dahran, KSA) | | September 1988-July 1993 | Umm Al-Qura University (Makkah, KSA) | | August 1996- July 2002 | Liverpool School of Tropical Medicine (Affiliated to the University of Liverpool, Liverpool, UK) | | **Degree Awarded :** |  | | July, 1987 | General Secondary Education Certificate (Science Section) | | September, 1993 | BMSc degree in medical Laboratories Sciences with honor list. | | June, 1997 | Master degree in Sciences (Parasitology and vector biology) | | February, 2002 | PhD degree in genetics of parasites | | | **positions held** | | |  |  | | --- | --- | | 1993-1994 | Demonstrator at the faculty of health sciences (Dammam). | | 1994-2002 | Demonstrator at the Medical Parasitology department, Faculty of Medicine at Umm Al-Qura University (Makkah). | | February 2002-Agust 2002 | post-doctoral with Dr. P. A. Bates group at Liverpool School of Tropical Medicine, Liverpool University, Liverpool, UK. | | August 2002-October 2007 | Assistant professor at Umm Al-Qura University (Makkah) at the Medical Parasitology Department. | | December 2002-Decmeber 2006 | Head of parasitology department at faculty of medicine, Umm Al-Qura University | | June 2003-March 2006 | Chairman of Medical library, Umm Al-Qura University | | July 2006-July 2008 | Vice dean of the faculty of applied medical science, Umm Al-Qura University | | October 2007 to date | Associate professor at Umm Al-Qura University in Molecular biology of infectious diseases (Makkah) at the Medical Parasitology Department. | | November 2009-November 2011 | Vice dean of the scientific research Institute, Umm Al-Qura University. | | November 2011- October 2013 | Head of parasitology department at faculty of medicine, Umm Al-Qura University | | July 2012- July 2014 | Dean of Faculty of Pharmacy | | August 2014- July 2016 | Head of parasitology department at faculty of medicine, Umm Al-Qura University | | April 2016 to November 2017 | Vice Dean of college of Medicine for Postgraduates and scientific research | | November 2017 to dtae | Dean of UQU Post Graduate Studies | | **SCIENTIFIC SOCIETIES MEMBERSHIP** | | | Member in the British Society for Parasitology (BSP), UK. | | | Member in the Egyptian Society for Parasitology, Egypt. | | | Scientific representative of Journal of the Egyptian society of parasitology in western region of Saudi Arabia. | | | Member in the Arab Society of Medical Research, Egypt. | | | Member in the Molecular Diagnostic Group (MDG),K SA. | | | Member in the Association of Saudi Medical Technologists, KSA. | | | Member in the Saudi Society of Microbiology and Infectious Diseases, KSA | | | | **Teaching experience** | | |  |  | | --- | --- | | 1993-1995 | Medical parasitology Laboratory material for 3rd year Medical Sciences students. | | 2002-to date | Diagnostic Medical protozology course for 3rd year laboratory medicine students. | | 2003-to date | Selected topics in Clinical Parasitology (Leishmaniasis; Malaria, Trypanosomiasis and toxoplasmosis) for 3rd year Medical students. | | 2017 to date | Elective course leader for the new UQU Medical School curriculum | | | **Publications** | | |  | | --- | | *Toxoplasma gondii* seroprevalence at a tertiary care hospital in Makkah, Saudi Arabia.  Dina A. Zaglool, Mohammed El-Bali, Hani S. Faidah, **Saeed A. Al-Harthi** (2017) Journal of Advanced Laboratory Research in Biology (2017). 8 (2): 36-40 | | Subtyping of *Blastocystis* sp. isolated from symptomatic and asymptomatic individuals in Makkah, Saudi Arabia  Raafat T. Mohamed, Mohammed A. El-Bali, Anhar A. Mohamed, Mona A. Abdel-Fatah, Mohamed A. EL-Malky, Nawras M. Mowafy, Dina A. Zaghlool, Rowaida A. Bakri, **Saeed A. Al-Harthi** (2017)Parasit Vectors. 10 (174): 1-7  PMID: 28388938 | | Evaluating the efficacy of a Plasmodium species-specific Multiplex-Nest-PCR in malaria diagnosis using different DNA isolation methods.**Al-Harti SA** Journal of Advanced Laboratory Research in Biology (2017).8 (1): 12-17 | | RETROSPECTIVE INVESTIGATION OF PYRIMETHAMINE-SULFADOXINE RESISTANCE INDICATORS IN FALCIPARUM-MALARIA POSITIVE BLOOD SAMPLES FROM SOUTH WESTERN SAUDI ARABIA.  **Al-Harti SA** J Egypt Soc Parasitol. (2016)46 (2): 387-392 | | COMPARISON OF A GENUS-SPECIFICCONVENTIONAL PCR AND A SPECIES-SPECIFIC NESTED-PCR FOR MALARIA DIAGNOSIS USING FTA COLLECTED SAMPLES FROM KINGDOM OF SAUDI ARABIA.  **Al-Harthi SA** J Egypt Soc Parasitol. (2015) 45(3):457-66.PMID: 26939223 | | Madkhali AM, Alkurbi MO, [Szestak T](http://www.ncbi.nlm.nih.gov/pubmed/?term=Szestak%20T%5BAuthor%5D&cauthor=true&cauthor_uid=26849362), [Bengtsson A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Bengtsson%20A%5BAuthor%5D&cauthor=true&cauthor_uid=26849362), Patil PR, Wu Y, **Al-Harthi SA**, Jensen AT, [Pleass R](http://www.ncbi.nlm.nih.gov/pubmed/?term=Pleass%20R%5BAuthor%5D&cauthor=true&cauthor_uid=26849362), Craig AG. PLoS One.(2014)11(2):e0148836. PMID: 25360558 | | El-Malky MA, **Al-Harthi SA**, Mohamed RT, El Bali MA, Saudy NS. Vaccination with Toxoplasma lysate antigen and CpG oligodeoxynucleotides: comparison of immune responses in intranasal versus intramuscular administrations. Parasitol Res. 2014 Apr 13. | | El-Malky MA, Maruyama H, **Al-Harthi SA**, El-Beshbishi SN, Ohta N. The role of B-cells in immunity against adult Strongyloides venezuelensis. Parasit Vectors. 2013; 6: 148. | | **Al-Harthi SA.** Malaria drug resistant: current situation with reference to Saudi Arabia (review). *J. Egypt Soc. Parasitol*. 2011; 41(3): 553-564. | | **Al-Harthi SA,** Jamjoom MB. PCR assay in malaria diagnosis using filter paper samples from Jazan region, Saudi Arabia. *J. Egypt Soc. Parasitol*. 2008; 38(3): 693-706. | | **Al-Harthi SA**, Jamjoom MB. Preliminary study of the prevalence of Intestinal parasites among diarrheic iInhabitants in Makkah Al Mukaramah. *J. Egypt Soc. Parasitol*. 2007; 37(2): 671-680. | | **Al-Harthi SA**, Jamjoom MB. Diagnosis and Differentiation of *Entamoeba* Infection in Makkah Al Mukarramah Using Microscopy and Stool Antigen Detection Kits. *W. J. Med. Sci*. 2007; 2(1): 15-20. | | **Al-Harthi SA.**. Detection of drug resistance markers for chloroquine and pyrimethamine-sulfadoxine in Jazan area, Saudi Arabia using PCR and restriction digestion. J Egypt Soc Parasitol. Vol. 37, No.1, pp. 17-30, 2007. | | **Al-Harthi SA**, Jamjoom MB. Enteroparasitic Occurrence in Stools from residents in south-western region of Saudi Arabia before and during Umrah season. *Saudi Med. J.* 28(3) 22-25 | | Jamjoom MB, Azhar EA, Tonkol AM, **Al-Harthi SA**, Ashankyty IM. Detection of Malaria in Saudi Arabia by Real-Time PCR. *J Egypt Soc Parasitol  2006;* 36(3): 737-748. | | **Al-Harthi SA**, Jamjoom MB, Ghazi HO. Seroprevalence of Toxoplasma gondii infection among pregnant women in Makkah, Saudi Arabia. *Umm Al-Qura Univ. J.Sci.Med. Eng.* 2006; 18 (2): 217-227. | | Manju B. Joshi, Matthew E. Rogers, Alison M. Shakarian, Mat Yamage, **Saeed A. Al-Harthi**, Paul A. Bates, and Dennis M. Dwyer. Molecular Characterization, Expression, and in Vivo Analysis of LmexCht1 (THE CHITINASE OF THE HUMAN PATHOGEN, LEISHMANIA MEXICANA). Journal of Biological Chemistry. Vol. 280, No. 5, pp. 3847–3861, 2005. | | **Saeed A. Al-Harthi**. Prevalence of Intestinal parasites in schoolchildren in Makkah, Saudi Arabia. The New Egyptian Journal of Medicine. Vol. 31, No. 4, pp. 37-43, Suppl., 2004. | | | **presentations** | | |  | | --- | | **ORAL PRESENTATION** | | Malaria in Saudi Arabia, the current situation. **Presented at the British society for Parasitology BSP meeting as Invited speaker: spring meeting 6th- 9th April, 2014, Cambridge, UK.** | | Study of *Plasmodium falciparum* parasites resistance to Chloroquine and Sulfadoxine-Pyrimethamine drugs by PCR-RFLP in Jazan region, Saudi Arabia. **Presented at the British society for Parasitology BSP meeting: spring meeting 12th- 14th April, 2011, Nottingham, UK.** | | Malaria drug resistant, the current situation is Saudi Arabia. **Presented at the 5th annual conference of the Holy City Laboratories, 9th-13th May 2009, Makkah, KSA** | | Implementation of new techniques for a specific and sensitive detection of pathogenic micro-organisms in drinking water. **Presented at 8th Hajj Seminar 4th-6th December 2007, Makkah, SA.** | | Diagnosis and Differentiation of *Entamoeba* Infection in Makkah Al Mukarramah Using Microscopy and Stool Antigen Detection Kits. **Presented at the Third Saudi Science Conference “New Horizons in Science and Their Applications” 10th -13th March 2007, Riydh, SA.** | | Parasitic diseases during Hajj season. **Presented at infectious diseases during Hajj season 10th-12th October, 2006, Makkah, SA.** | | Cloning, Characterization and Knockout of the gene encoding squalene synthase of L. mexicana. **Presented at the British society for Parasitology BSP meeting: spring meeting 9th- 11th April, 2002, Salford, UK.** | | Is squalene synthase an essential gene for *Leishmania* parasite? **Presented at the Transaction of the royal Society of Tropical Medicine and Parasitology meeting, 2001, London, UK.** | | **POSTER PRESENTATION** | | Performance of different blood collection and DNA extraction methods for malaria diagnosis by PCR. **Presented at the British society for Parasitology BSP meeting: spring meeting 2nd- 5th April, 2012, Glascow, UK.** | | Implementation of new techniques for a specific and sensitive detection of pathogenic microorganisms in drinking water. **Presented at The 5th Congress of Scientific Research Outlook & Technology Development in the Arab World(SRO5), 25th- 30th October, 2008, Jnan Palace Hotel - Fez, Morocco** | | Study of the prevalence of malaria parasites in Jizan region, Saudi Arabia using PCR technique. **Presented as printed report at Scientific research symposium in the Gulf Universities, 25th-27th May 2008, Umm Al-Qura University, Makkah, KSA.** | | Preliminary investigation of parasitic helminthes in Makkah Al-Mukarramah vegetable markets. **Presented at the 1st International conference of the Arab Society for Medical Research 7th-9th November, 2006, National Recearch Center, Cairo, Egypt.** | | Creation of *L. mexicana* squalene synthase null mutant*.* **Presented at the British Society For Parasitology BSP). Spring meeting at The University of Keele (17th-20th April, 2001).** | | Conferences, meetings and Workshops | | The 20th Environmental Health Meeting” Environmental health and food for healthy generation, 7th-11th March 2009, Jeddah, KSA. | | The first national symposium of development national research and development talents, SCITECH, Al-Khobar, 8-9th December 2007 | | Third Saudi Science Conference (New Horizons in Science and their Applications). Collage of science- King Saud University- King Fahad Cultural Center.10-13th March 2007. | | Learning & Technology the 5th annual symposium: Digital Literacy: No Boundaries, No limits At Jeddah Saudi Arabia (13-14th January, 2007). | | The 4th conference on scientific Research outlook and technology development in the arab world. 11-14th December, 2006 Umayyad palace, demascus, Syrian arab republic. | | The 1st International conference of the Arab Society for Medical Research. 7-9th November, 2006. National Research Center, cairo, Egypt. | | XI International congress of parasitology, 6-11th August 2006 SECC Glasgow Scotland. | | Seminar on Quality Assurance (ISO-9001-2000) at King Abdul Aziz University (14th May, 2006). | | First workshop in Biotechnology. 20-22nd February 2006. king abdulaziz City for Sciences and Technology. Riyadh, KSA. | | Molecular Diagnostic Group Meeting at Jeddah, Saudi Arabia (4th-7th December, 2005). | | Workshop on King abdulaziz University Excellency trails, 28th November 2005. king Abdulaziz university conference Hall, Jeddah, KSA. | | Meeting of the British Society of Parasitology, 4-7 April 2004. chester collage, chester UK. | | International conference in Biotechnology. March, 2004. King Faisal specialist hospital and research center, Jeddah Hilton, KSA. | | Application of Molecular Biology in Medicine conference, 6-8 October 2003. Specialists Academy for Medical Training, Jeddah Hilton, KSA | | Meeting of who owns Genome? , King Abdulaziz City for Sciences and Technology, Riyadh, KSA, 2003. | | Meeting of the British Society of Parasitology – Manchester, U.K. April 2003 | | A workshop on DNA fragments analysis on CEQ 2000XL DNA Analysis System at Beckman Coulter training facilities at Wycombe, UK. (24th-28th June, 2002). | | Workshop of developing high quality written tests and objective structured clinical exams (OSCES), King Fahad Medical Research Center, Faculty of Medicine and Allied Sciences, King Abdulaziz University, Jeddah, KSA 2002 | | The British Society For Parasitology (BSP). Spring meeting at The University of Salford (8th-11th April, 2002). | | Meeting of Transaction of the royal society of Tropical Medicine and Parasitology, London, UK, December 2001 | | The British Society For Parasitology (BSP). Spring meeting at The University of Keele (17th-20th April, 2001). | | Woods Hall Molecular Parasitology conference, Marine Laboratory (Woods Hall) Bosten, USA, 2000. | | Symposium of Trypanosomatides - Glasgow - U.K. February, 1999 | | The fourth Congress of Tropical Medicine – Liverpool – UK. August 1998 | | Meeting of the British Society of Parasitology - Manchester - U.K. April, 1997 | | |  | |  | | **Research experience** | | |  |  |  |  | | --- | --- | --- | --- | | **MSc Project**: | | | | | Date: | | | June, 1997 | | Supervised by: | | | Dr. M. L. Chance at Liverpool School of Tropical Medicine. | | Title: | | | Growth of *Leishmania donovania* in *Balbc* mice | |  | | | | | **PhD Project**: | | | | | Date: | | | March, 2002 | | Supervised by: | | | Dr. P. A. Bates and Dr. M. L. Chance at Liverpool School of Tropical Medicine. | | Title: | | | Cloning, Characterization and Knockout of the gene encoding squalene synthase of *L. mexicana* | | **Funded projects:** | | | | | **Title** | **Enteroparasitic occurrence in stools from residents in southwestern region of Saudi Arabia before and during umrah season** | | | | Date | 2004 | | | | Duties | Principle investigator | | | | Duration | One year project | | | | Sponsor | The two holy mosques institute of Hajj research, Umm Al-Qura Univesrsity | | | | **Title** | **Study the prevalence of malaria parasite in jazan region, Saudi Arabia using PCR technique** | | | | Date | August 2006 | | | | Duties | Principle investigator | | | | Duration | One year project | | | | Sponsor | Research institute, Umm Al-Qura Univesrsity | | | | **Title** | **Biological and physio-chemical survey of drinking water sources in Makkah Al-Mukarramah** | | | | Date | June 2006 | | | | Duties | Principle investigator | | | | Duration | Fifteen months | | | | Sponsor | Fakieh Research and Development Center, Makkah | | | | **Title** | **Study of *Plasmodium falciparum* parasites resistance to Chloroquine and Sulfadoxine-Pyrimethamine drugs by PCR-RFLP** | | | | Date | October 2008 | | | | Duties | Principle investigator | | | | Duration | One year project | | | | Sponsor | Research institute, Umm Al-Qura Univesrsity | | | | **Supervision of graduation thesis:** | | | | | 2002-2003 | | Co-supervisor of “prevalence of intestinal parasites among preliminary males students in makkah." Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2002-2003 | | Co-supervisor of “prevalence of Trichomonas Vaginalis among females in Makkah." Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2003-2004 | | Supervisor of “prevalence of Toxoplasmosis among pregnant women in makkah." Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2003-2004 | | Co-supervisor of “Viability of Trichomonas Vaginalis in Transport Medium." Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2004-2005 | | Supervisor of “prevalence of Malria in Jazan region using passive case detection system." Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2005-2006 | | Supervisor of "Investigation of parasitic helminths in Makkah Al-Mukarramah vegetable markets." Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2005-2006 | | Supervisor of "Adaptation of PCR techniques for malaria diagnosis and Chloroquine resistance related PfCRT gene amplification" Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2006-2007 | | Supervisor of "Biological and Physio-Chemical survey of drinking water sources in Makkah Al-Mukarramah, KSA" Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2006-2007 | | Supervisor of "Malaria Survey in Al-Ardah and Al-Khoba Endemic Districts of Saudi Arabia" Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2006-2007 | | Supervisor of "Molecular Determination of Pfcrt K76T and Pfdhfr C59R Alleles Polymorphisms in Plasmodium falciparum isolates from Jizan" Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | 2007-2008 | | Supervisor “Evaluation of two DNA template preparation methods from dried blood samples on different filter matrices for subsequent diagnosis and differentiation of *Plasmodia* parasites by multiplex nested-PCR” Parasitology Dpt., Faculty of Medicine, Umm Al-Qura University, Makkah, KSA. | | | **Technical expertise** | | | | | * Cultivation of living cells in semi-solid and liquid media. * Daily estimation of growth and density. * Single cell cloning * Parasite cloning * Freezing and recovering cells * Cryopreservation of living cells. * DNA and RNA extraction * Gel-electrophoresis * Restriction enzymes digest and genotyping analysis. * Southern and Northern blots. * Southern hybridization and luminescent detection system * Cloning DNA fragments into different plasmids * DNA library construction and screening * Primers design * Purification of mRNA * Reverse Transcriptase Polymerase Chain reaction (RT-PCR) * Construction of chromosomal integration vectors * Transfection of living cells by electroporation * DNA Immunization * Mouse immunization using gene gun method * Indirect fluorescent antibody test (IFAT) * Enzyme linked immunosorbent assay (ELISA) * Expression of recombinant proteins * Purification of recombinant proteins using Glutathione-agarose beads * SDS-PAGE   **OTHER INTERESTS:**  • Teaching & Staff development. • Curriculum planning. • Water Quality studies. • Parasitic infection & environmental impact. • Endemic parasitic diseases in Saudi Arabia. | | | | | |  | |