CURRICULM VITAE

AHMED WAHID, Ph.D.

Associate Professor, tenured post
Acting Head of Pharmaceutical Biochemistry Department

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ACADEMIC PROFILE

I am currently an Associate Professor of Biochemistry and Molecular Biology in the department of Pharmaceutical Biochemistry-Faculty of Pharmacy, Alexandria University, Egypt. I am an experienced teacher at the undergraduate and postgraduate levels in teaching Molecular Biology, Biochemistry, and Clinical Biochemistry.

I have gained an experience in a wide range of Biochemical, Biophysical and Virological techniques in the field of Molecular Biology during my Ph.D. studies in **Manchester University in the United Kingdom**, Postdoc fellowship in **Pasteur institute in France**, and academic visit to CVR (Centre for Virus Research) in the **University of Glasgow in Scotland**. Three high profile research-led departments that allowed me to widen my scientific knowledge in these fields and helped me to develop skills necessary to obtain significant research funding for my own independent laboratory.

My research broadly covers liver disease and cancer, with specific themes in the fields of viral hepatitis, and the contribution of host genetics and immunology to liver diseases. **Since June 2013, I am heading a research team**. The main focus of the team is to develop basic research on Hepatitis C Virus (HCV) by studying virus-host interactions at the **molecular and cellular levels** to help identify host factors that are associated with treatment response and/or the development of liver fibrosis and disease progression. In addition, our team is attempting to develop diagnostic tests to non-invasively predict liver fibrosis and or cirrhosis stages, thereby avoiding liver biopsies.

EDUCATION / TRAINING

2015-2016 **Visiting Researcher, "Neutralizing antibodies targeting the viral E2 glycoprotein of 4a HCV genotype".**
Centre for Virus Research (CVR), The University of Glasgow, Scotland, United Kingdom.

2011-2013 **Postdoctoral fellowship, "Role of the envelope glycoprotein disulfide bonds during the HCV life cycle".**
Pasteur institute, Lille, France.

2005-2009 **Ph.D. in Molecular Biology, "Molecular basis of PKR inhibition by adenovirus VA RNA_I".**
Faculty of Life Sciences, The University of Manchester, United Kingdom.

2003-2005 **Masters in Biochemistry, "Biochemical role of Biphenyl-Dimethyl-Dicarboxylate (DDB) with some antioxidants in carbon tetrachloride intoxicated rats".**
Faculty of Pharmacy, The University of Minia, Egypt.

1994-1999 **Bachelor of Pharmaceutical Sciences.**
Faculty of Pharmacy, The University of Alexandria, Egypt.

CURRENT AND PREVIOUS POSTS

2019 **Acting Head of Pharmaceutical Biochemistry department**

2019 **Associate Professor**
Department of Pharmaceutical Biochemistry-Faculty of Pharmacy, Alexandria University, Egypt.

2018 **Member in the National committee of Biochemistry and Molecular Biology**
Academy of Scientific Research and technology

2017-now **Associate Professor**
Department of Pharmacology and Toxicology-Faculty of Pharmacy, Alexandria University, Egypt.

2016 **Associate Professor**
Biochemistry Department-Faculty of Pharmacy, Minia University, Egypt.

2010-2016 **Lecturer**
Biochemistry Department-Faculty of Pharmacy, Minia University, Egypt.

2013-2015 **Executive Manager of the special Molecular Biology Unit (MBU)**
Faculty of Pharmacy-Minia university, Egypt.

2011-2013 **Postdoc Research fellow in Pasteur institute**
Molecular and cellular virology of Hepatitis C (HCV) lab, Center for infection and immunity, Lille (CIIL), Inserm U1019, CNRS UMR8204, Univ Lille Nord de France, Lille, France.

2009-2010 **Executive Manager of the training unit**
Faculty of Pharmacy-Minia University, Egypt.

2005-2009 **Research associate**
Faculty of Life Sciences, The University of Manchester, United Kingdom.

2003-2005 **Assistant lecturer**
Biochemistry Department-Faculty of Pharmacy, Minia University, Egypt.

2000-2003 **Demonstrator**

Biochemistry Department-Faculty of Pharmacy, Minia University, Egypt.

2000 **Demonstrator**
National Research Institute, Giza, Egypt.

AWARDS, GRANTS AND ACHIEVEMENTS

April 2019 **Co-Principal Investigator (Co-PI) of an Academic Thesis Research Fund, Faculty of Pharmacy, Alexandria University**
"A comparative study for the effect of different antidiabetic drugs on experimentaly-induced non alcoholic fatty liver disease in rats" (50,000 L.E).

April 2019 **Co-Principal Investigator (Co-PI) of an Academic Thesis Research Fund, Faculty of Pharmacy, Alexandria University**
"Role of ion channels in modulation of morphine antinociceptive effect in experimental liver fibrosis" (50,000 L.E).

September 2018 **Travel grant from Alexandria University.**
BASL 2018 conference, YORK, UK.

June 2017-now Member in the team of the project "IT based International Diploma and professional certificate in clinical toxicology (ITCT) 561915-EPP-1-2015-1-EG-EPPKA2-CBHE-JP" **(1 million Euros)**.

2016 **Minia university publication award.**

2015-2016 (September-March) **Post-doctoral fellowship grant (on competitive basis) in Glasgow University**.
Egyptian Cultural affairs and Missions Sector–Egyptian Higher Ministry of Education.

January 2014 **Co-Principal Investigator (Co-PI) of a Research Support Grant funded from the scientific research developing unit of Beni-Seuf university; 40,000 L.E (6000 USD).**
"Effect of mutations in the host factor double stranded RNA activated protein kinase on the interferon response of HCV infection in Egyptian patients (genotype 4a)".

2014 **Minia university publication award.**

(January 2013-Septembre 2015) **Minia university contact person of Joint Master Biotechnology project (JMbiotech) (1 million Euros).**
Tempus grant Project No.: 543865-TEMPUS-1-2013-1-EG-TEMPUS-JPCR.

2011-2013 **ANRS postdoctoral fellowship grant, France.**
The French National Agency for Research on AIDS and Viral Hepatitis (ANRS; Agence Nationale de Recherche sur le Sida et les hepatitis).

2011 (January-June) **Assistant Manager of the CIQAP project grant (funded from the Egyptian Higher Ministry of Education; 5 million Egyptian pounds).**

Faculty of Pharmacy-Minia university.

2008 **Publication award**
Egyptian cultural bureau, Egyptian embassy, London, UK.

2005-2009 **Egyptian Government Ph.D. Scholarship**
Egyptian Cultural affairs and Missions Sector – Egyptian Higher Ministry of Education.

2000 **Recipient of a teaching assistance scholarship**
Biochemistry Department, University of Minia, Egypt.

RESEARCH

I have experienced a wide range of techniques in Molecular and Cellular Biology field including:

1-General Basic Molecular Biology Techniques:
Transformation of competent bacterial cells with DNA, conducting different types of gel electrophoresis, small and large scale DNA plasmid preparation, precipitation and phenol-chloroform extraction of nucleic acids, site-directed mutagenesis, gene polymerase chain reaction (PCR) and cloning, detection of Single Nucleotide Polymorphisms (SNPs) via RFLP technique (Restriction Fragment Length Polymorphism), ELISA.

2-General Basic Cell Biology Techniques:
HCV_{CC} and HCV_{PP} cell culture systems, electroporation of RNA into different hepatoma cell lines and transfection of DNA plasmids into eukaryotic cells, Co-immunoprecipitations, and Laser confocal microscopy.

3-Protein Biology:
Expression and purification of recombinant proteins using FPLC technique, identification of proteins using western blotting technique, conducting protein kinase inhibition and activation functional assays, isothermal titration calorimetry (ITC), and protein crystallisation.

4-RNA Biology:
RNA *in vitro* transcription reactions, RT-PCR (Reverse Transcription-Polymerase Chain Reaction), 5′-end labelling with ^{32}P, RNA and RNA-protein complex purification, RNA UV thermal melting studies, and RNA secondary structure probing.

5-Molecular Virology of HCV
CD81 Pull down assays, $TCID_{50}$ end point dilution assays, Intracellular infectivity assays, Virus purification, Equilibrium density gradient assays, Virus stability assays, immunofluorescence microscopy, Analysis of the sensitivity of viruses to pH treatment, Direct cell to cell transmission assays, Virus neutralization studies.

6-I have also conducted experiments involving animal models (rats and mice).

PRESENTATIONS, WORKSHOPS AND CONFERENCES

2019 **Accepted poster** in international SONA (Society of Neuroscientists of Africa) conference, **Lagos, Nigeria**.

"Investigating the possible synergistic effects of addition of melatonin to Vincristine to HCT-8 Colon cancer cell line".

2018 **Accepted poster** in Fifth international conference on Parkinson disease and Movement disorder, New York, USA.

"Comparison between the efficacies of pomegranate with different combinations against development of parkinsonism using rotenone model in rats".

2018 **Poster presenter** in BASL 2018 Annual meeting, University of York, **York, UK**.

"Tumor necrosis factor alpha (TNF-α) and RNA protein kinase (PKR) SNPs are genetic biomarkers for the HCV outcome among Egyptian patients".

2018 Chemical Security Vulnerability Assessment and Risk Mitigation For Chemical Industries**, Cairo, Egypt.**

2018 Electronic learning management systems (e-LMS) workshop at Ministry of communication and information technology, **Cairo, EGYPT**.

2018 International diploma for Clinical Toxicology International diploma for clinical toxicology workshop (Erasmus plus project), **Newcastle, UK**.

2018 International diploma for Clinical Toxicology E-learning workshop (Erasmus plus project), **Malta**.

2017 Introduction to e-courses development, **Alexandria**, **EGYPT**.

2016 Invited speaker at the Biotechnology and its applications in Medical and Microbial sectors conference, National research institute, **GIZA, EGYPT**.

2016 Invited speaker at the Molecular Biology workshop, Faculty of Pharmacy, Minia university, **MINIA, EGYPT**.

2016 21th Glasgow Virology Workshop, **GLASGOW, SCOTLAND, UNITED KINGDOM**.

2015 The Fourth National Workshop; TEMPUS project; Joint Master degree in Biotechnology (JM Biotech), **ALEXANDRIA, EGYPT**.

2015 Speaker at the Fifth international conference of Pharmaceutical and drug industries research, **CAIRO, EGYPT**.

2015 The Third National Workshop; TEMPUS project; Joint Master degree in Biotechnology (JM Biotech), **FAYOUM, EGYPT**.

2015 Speaker at the 12th National conference "Role of Biochemistry and Molecular Biology in drug discovery and disease diagnosis", **CAIRO, EGYPT**.

2014 International workshop of Joint Master Biotechnology degree (JM Biotech; Tempus project), **MARSA ALAM**, **EGYPT.**

2014 The Second National Workshop for the Tempus project EG partner for the establishment of a new joint master degree in Biotechnology applied to agricultural, environmental and pharmaceutical sciences, **CAIRO, EGYPT**.

2014 International workshop of Joint Master biotechnology project (Tempus), **HURGADA**, **EGYPT.**

2013 Invited speaker at (la 13ème Réunion du Réseau national hépatites de l'ANRS), **PARIS, FRANCE**.

2012 Invited speaker at the first cross-border symposium on hepatitis C, **GHENT, BELGIUM**.

2012 Invited speaker at the AC29 meeting (Mécanismes d'entrée des virus des hépatites dans leurs cellules cibles), **PARIS, FRANCE**.

2012 Poster presenter at the 19th international symposium on hepatitis C virus and related viruses, **VENICE, ITALY**.

2012 Twelveth meeting of the ANRS for HCV and HBV, **PARIS, FRANCE**.

2011 Biophysical Society 55th annual meeting "Inhibition of PKR by Adenovirus-associated RNA I", **BALTIMORE, USA.**

2010 The obesity conference held by the Medical Association for the study and management of obesity diseases, four seasons hotel, **ALEXANDRIA, EGYPT**.

2008 Speaker at the British Crystallographic Association-Biological Structures Group meeting, **NEWCASTLE**, **UNITED KINGDOM**.

2008 Speaker at the Faculty of Life Sciences Symposium, University of Manchester symposium, **MANCHESTER**, **UNITED KINGDOM**.

2007 Speaker at the Northern protein structural workshop, **CARLISLE**, **UNITED KINGDOM**.

2007 Poster presenter at the Faculty of Life Sciences Symposium, University of Manchester, **MANCHESTER**, **UNITED KINGDOM**.

2006 Seminar at the Faculty of Life Sciences Symposium, University of Manchester, **MANCHESTER**, **UNITED KINGDOM**.

SELECTED PUBLICATIONS

h-index: 12
Impact points: 91.384
No. of citations: 353

Year	Paper
2019	**Impact of IL-27p28 (rs153109) and TNF-α (rs1800629) Genetic Polymorphisms**

	on the Progression of HCV Infection in Egyptian Patients. Tharwat E, Gad GFM, Nazmy MH, Mohamed HI, Hamza N, Wahid A, Ibrahim ARN. Immunol Invest. 2018 Sep 11:1-13. doi: 10.1080/08820139.2018.1510958. [Epub ahead of print]
2019	**RNA dependent protein kinase is a novel biomarker for the clearance of HCV (genotype 4a) in Egyptian patients.** Ahmed Wahid, Mustafa A. Hamzawy, Mohamad M. A. Khalifa, Gamal F. M. Fadl, Amany Bekhit, and Sayed F. Abdel Wahab. J. of immunological investigations, ahead of print.
2018	**Two novel SNPs in the Promoter region of PKR gene in Egyptian Hepatitis C Patients and their impact on disease outcome and response to treatment.** Dina El-Dahshan, Doaa Bahy, Amr E. Ahmed, and Amro Hanora, Ahmed Wahid. Arab journal of gastroenterology, ahead of print.
2016	**MBOAT7 rs641738 increases risk of liver inflammation and transition to fibrosis in chronic hepatitis C.** Thabet K, Asimakopoulos A, Shojaei M, Romero-Gomez M, Mangia A, Irving WL, Berg T, Dore GJ, Grønbæk H, Sheridan D, Abate ML, Bugianesi E, Weltman M, Mollison L, Cheng W, Riordan S, Fischer J, Spengler U, Nattermann J, Ahmed Wahid, Rojas A, White R, Douglas MW, McLeod D, Powell E, Liddle C, van der Poorten D, George J, Eslam M; International Liver Disease Genetics Consortium. Nat Commun. 2016 Sep 15;7:12757. doi: 10.1038/ncomms12757.
2016	**Hepatoprotective activity of ethanolic extract of Salix subserrata against CCl4-induced chronic hepatotoxicity in rats.** Ahmed Wahid, Hamed AN, Eltahir HM, Abouzied MM. BMC Complement Altern Med. 2016 Jul 29;16:263. doi: 10.1186/s12906-016-1238-2.
2016	**Serum serotonin as unexpected potential marker for staging of experimental hepatocellular carcinoma.** Abdel-Hamid NM, Shehata DE, Abdel-Ghany AA, Ragaa A, Ahmed Wahid. Biomed Pharmacother. 2016 Jul 14;83:407-411. doi: 10.1016/j.biopha.2016.07.005.
2016	**Exploration of acetanilide derivatives of 1-(ω-phenoxyalkyl)uracils as novel inhibitors of Hepatitis C Virus replication.**Magri A, Ozerov AA, Tunitskaya VL, Valuev-Elliston VT, Ahmed Wahid, Pirisi M, Simmonds P, Ivanov AV, Novikov MS, Patel AH. Sci Rep. 2016 Jul 12;6:29487.
2016	**Association of Interleukin-27.rs 153109 Single Nucleotide Polymorphism with Spontaneous Resolution of Hepatitis C Virus - Genotype 4a Infection in Egyptian Patients versus persistence of chronic liver infection.** Mariam M. Fawzy, Ahmed Wahid, Maiiada H. Nazmy, Mohamed Hashem, Imam Waked, Sayed F. Abdelwahab. APJCP. 2016.17(4) 2093-2097
2016	**Jerusalem Artichoke in combination with Pegylated Interferon Alfa-2a and Ribavirin reverse hepatic fibrosis in rats through inhibition of the p53, BAX, and TGF-β protein expression levels.** Nabil Mohie Abdel-Hamid, Ahmed Wahid, Maiiada Hassan Nazmy, and Marwa Abdel-Moniem Eisa. APJCP. 2016.17(4)1979-1985.
2016	**New pathways driving the experimental hepatoprotective action of tempol (4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl) against acute hepatotoxicity.** N.M. Abdel-Hamid, Ahmed Wahid, E.M. Mohamed, M.A. Abdel-Aziz, O.M. Mohafez, Sally Bakar. Biomedicine & Pharmacotherapy 79 (2016) 215–221.
2015	**Monoclonal antibodies: Principles and applications of immunodiagnosis and immunotherapy for hepatitis C virus.** Tabll A, Abbas AT, El-Kafrawy S, Ahmed Wahid. World J Hepatol. 2015 Oct 8; 7(22): 2369-83.
2013	**Additional glycosylation within a specific hypervariable region of subtype 3a of hepatitis C virus protects against virus neutralization.** Sadia Anjum#, Ahmed Wahid#, Muhammad Sohail Afzal, Anna Albecka, Khaled Alsaleh, Tahir Ahmed, Thomas F.

	Baumert, Czeslaw Wychowski, François Penin, Jean Dubuisson. Journal of infectious diseases. J. Infect Dis. 2013 Dec;208(11):1888-97. doi: 10.1093/infdis/jit376. Epub 2013 Aug 1. **# Both authors contributed equally to this work.**
2013	**Virus-neutralizing antibodies to hepatitis C virus.** Ahmed Wahid, Dubuisson J. **J Viral Hepat.** 2013 Jun;20(6):369-76. doi: 10.1111/jvh.12094. Epub 2013 Apr 4.
2013	**The antimalarial ferroquine is an inhibitor of hepatitis C virus.** Vausselin T, Calland N, Belouzard S, Descamps V, Douam F, Helle F, François C, Lavillette D, Duverlie G, Ahmed Wahid, Fénéant L, Cocquerel L, Guérardel Y, Wychowski C, Biot C, Dubuisson. Hepatology. 2013 Jul;58(1):86-97. doi: 10.1002/hep.26273. Epub 2013 May 14.
2012	**Disulfide bonds in hepatitis C virus glycoprotein e1 control the assembly and entry functions of e2 glycoprotein.** Ahmed Wahid, Helle F, Descamps V, Duverlie G, Penin F, Dubuisson J. **J Virol.** 2013 Feb;87(3):1605-17. doi: 10.1128/JVI.02659-12. Epub 2012 Nov 21.
2011	**A survey on herbal management of hepatocellular carcinoma.** Abdel-Hamid NM, Nazmy MH, Ahmed Wahid, Fawzy MA, Youssof M. **World J Hepatol.** 2011 Jul 27; 3(7):175-83.
2011	**Inhibition of PKR by Adenovirus-Associated RNA I.** Katherine Launer-Felty, C. Jason Wong, Ahmed Wahid, Graeme L. Conn and James L. Cole. Biophysical Journal 02/2011; 100(3). 232a-233a.
2010	**Magnesium-Dependent Interaction of PKR with Adenovirus VAI RNA.** Katherine Launer-Felty, C. Jason Wong, Ahmed Wahid, Graeme L. Conn and James L. Cole. **J Mol Biol.** 2010 Oct 1; 402(4): 638-44.
2009	**The PKR-binding domain of adenovirus VA RNAI exists as a mixture of two functionally non-equivalent structures.** Ahmed Wahid, Coventry VK, Conn GL. **Nucleic Acids Res.** 2009 Sep; 37(17): 5830-7.
2008	**Systematic deletion of the Adenovirus-associated RNAI terminal stem reveals a surprisingly active RNA inhibitor of double-stranded RNA-activated protein kinase.** Ahmed Wahid, Coventry VK, Conn GL. **J Biol Chem.** 2008 Jun 20; 283(25): 17485-93.
2007	**Lactate dehydrogenase isoenzyme pattern in the liver tissue of chemically-injured rats treated by combinations of diphenyl dimethyl bicarboxylate.** Laila Faddah, Nabil Abdel-Hamid, Yaser Abul-Naga, Sanaa Ibrahim, Ahmed Wahid. **J Appl Biomed**. 2007; (5): 77-80.
2002	**Possible hepatoprotective combinations of diphenyl dimethyl bicarboxylate (DDB) with some antioxidants in carbon tetrachloride intoxicated rats.** Faddah LMH; Abul-Naga,YA; Abdel-Hamid, NM and Ahmed Wahid. **The Egyp J of Biochem and Mol Biol**. 2002; (20): Special Issue: 105 – 113.

ACADEMIC ACTIVITIES

- A reviewer for the following peer-reviewed journals: **DNA and Cell Biology**, **Phytomedicine**, **Peer J, Saudi Pharmaceutical Journal, Journal of Gastroenterology, Journal of advanced Biomedical and Pharmaceutical Sciences, Hepatology Research**, **Journal of Cancer Chemotherapy and Pharmacology, and Zeitschrift für Naturforschung C.**

- **Biochemistry graduate mentorship**:
  1. **Alhusseiny Mohamed Mekky**: Faculty of Pharmacy-Minia university.
  2. **Marwa Abd Elmoneim**: Faculty of Pharmacy-Minia university.
  3. **Mariam Mahrous:** Faculty of Pharmacy-Minia university.

4. **Moustafa Hamzawy**: Faculty of Pharmacy-Minia university.
5. **Doaa Bahy:** Faculty of postgraduate-Beni-Suef university.

- A member in the Master thesis examination board of 2 students.

- Created the curriculum development plan of the faculty of pharmacy-Minia university in the context of the CIQAP (Continous Accredetation and Quality Assurance Project; **2011**).

- Visiting scientist to the **University of Barcelona** (December 2014; checking different IT learning tools, and new lab oriented teaching methods that can be used in the implementation of Joint Master Biotechnology degree (JM biotech) in Minia university).

- A member of the British Association for the Study of the Liver (BASL), United Kingdom (2016-2017).

- The International Relation and Agreements Office (IRAO) co-ordinator for the Pharmacology and Toxicology department in the Faculty of Pharmacy-Alexandria university (March 2017-now).

- Vice director of the International Relation and Agreement Office (IRAO) (June 2017-Now).

- A member in the committee for selection Pharmacy undergraduate students participating in the summer school and clinical training at ITB-Indonesia and UiTM- Malaysia (April 2017, April 2018, April 2019).

- Scientific evaluator for the promotion evaluation to an Associate Professor degree for the Arab American University (Jenin, Palestine).

- Scientific evaluator for the British council to judge the Newton-Musharafa PhD program applications (2017/2018 and 2018/2019).

- Editorial Board member **for Bioscientific Review and Madridge journal of analytical sciences and instrumentation.**

- Board member in the Central lab of faculty of Pharmacy-Alexandria university (March 2018).

- Internal evaluator for Cell biology and Clinical Pharmacokinetic courses, Faculty of Pharmacy, Alexandria University (2017/2018).

- **Member in the National committee of Biochemistry and Molecular Biology,** Academy of Scientific Research and technology (October 2018-now).

TEACHING EXPERIENCE

Molecular Biology (pharmacy postgraduate students): This is an introductory course for molecular biology that covers the theoretical bases of DNA, RNA, and proteins in addition to basic Practical Molecular Biology techniques such as PCR and electrophoresis and advanced techniques like isothermal titration calorimetry.

Biochemistry-I (clinical pharmacy undergraduate students): It is an introductory course that covers fundamental theoretical concepts of Biochemistry and applications of the Biochemistry in life; the chemistry of carbohydrates, amino acids, proteins, lipids and steroids;

enzymes and enzyme regulations.

Biochemistry-II (clinical pharmacy undergraduate students): This course is covering the metabolic pathways of biomolecules including; carbohydrates, lipids, steroids, amino acids, proteins in addition to their regulation and their clinical application.

Clinical Biochemistry (clinical pharmacy undergraduate students): The course provides students with an overview of the metabolic disorders related to metabolism of carbohydrates, lipids, steroids, amino acids, proteins, nucleoproteins, nucleic acids and hemoproteins. The lectures also provide students with an overview of the pathophysiology, diagnosis and treatment of Bronchial asthma, Chronic obstructive pulmonary disease, Viral Hepatitis, Anemia, Renal failure, Gastrointestinal diseases, and Obesity.

Clinical lab investigations (Pharm D postgraduate students): This course provides postgraduate students with an overview of the different labortory based different investigations and an interpretation to the results.

Occupational, industrial, and environmental toxins: This course is designed to provide students with an up-to-date review of occupational, industrial, and environmental toxins that can affect human health. The study unit covers exposure pathways, absorption, distribution and storage of environmental toxins. Furthermore, the risk management options at pre- and post-release stages of industrial toxins are discussed through a case-based approach. It also addresses the environmental health issues of specific concern to pregnant women and children's health.

REFERENCES

TO BE GIVEN UPON REQUESTED