**Shah Fahad** (M.Phil., Ph.D., MS-PH., FETP) 

**National Institute of Health (NIH),** Ministry of National Health Services Regulation & Coordination (MoNHSRC) Islamabad, Pakistan.

Contact: +92-3025270707

E-mail: shahfahad707@gmail.com

 shahfahad@hsa.edu.pk

**Date of Birth:** March 05, 1989

**Founder & President:** Pakistan Mosquito Control Association (PMCA)

 pmca.org.pk@gmail.com

**OVERALL AIMS AND OBJECTIVE:**

International Consultant on Vector-borne communicable diseases, Global Health Diplomat, Disease Outbreak Investigations, Outbreak control expert, Urban Public Health, Biological Vector Control, Chemical safety and Environmental & Occupational health. Managing health and human development programs of public and private sector in Pakistan. To provide visionary leadership to countries for achieving better quality of life for common people through sustainable socio-economic development, achieved through ensuring better education, health and environment. The core strategic objectives to achieve the above overall aim are to advise Governments on urban public health, chemical safety, Biological Vector Control and environmental health and inform, motivate, activate and empower common masses to act as the main Source of sustainable development in public health.

**TECHNICAL SKILLS OFFERED**

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|  **Skill 01 Name** | **Level** | **Last** |
| Bio-medical research and training  | Excellent | Currently Working |

Details:

Capacity building in various aspects of public health, especially in Medical Entomology, Biological Vector Control and chemical safety. Promotion of applied vector eco-epidemiology, bionomics and control. Special emphasis on the control of vectors of diseases such as Malaria, Leishmaniasis, Filariasis, Dengue, Zika and other arboviral diseases. Organization of training courses on control methodology, for example the use of insecticide impregnated bed nets and other materials, judicious application of biocides, insect growth regulators, hormones and cost-effective application of chemical pesticides along with a number of other compatible methods as an integrated vector management approach (IVM). Countries are advised on biological control of mosquitoes particularly by the use of larvivores fish and other mosquito larval predators. Expert on the control of malaria vector mosquitoes and also other vectors, pests and disease reservoirs of public health significance, such as flies, fleas, cockroaches, bugs, lice, snails and rodents. Programme are advised on strategic action plans for innovative vector control methodology, community awareness, involvement and empowerment for sustainable vector-borne disease control for socio-economic development.

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|  **Skill 02 Name** | **Level** | **Last** |
| Environmental health/Chemical Safety(Safety from vectors of tropical diseases and hazardous chemicals)  | Excellent | Currently Working |

Details:

Promotion of safe management of insecticides/pesticides and chemicals to ensure healthy environment and sustainable development, special advisory skills in chemical risk reduction, strengthening of capacity and capability for safe management of chemical at national and regional levels. Assist countries in development of National Chemical Safety Profiles and establishment of National Register for hazardous chemicals. While working at IVC-MCP as Medical Entomologist initiative on national capacity building on safe and judicious use of pesticides in public health was launched successfully in district Mansehra and Khyber Pakhtunkhwa. The training course is based on WHO Multilevel Training Course on safe use of pesticides. Advisory services are provided to organizations on safe and judicious selection, use and disposal of pesticides and other hazardous chemicals and on chemical accident and poisoning prevention and control.

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|  **Skill 03 Name** | **Level** | **Last** |
| Public Health Systems Development /HealthPromotion | Excellent | Currently Working |

Details:

Public Health Systems Development, especially in Healthy cities and other settings. Expert advisory skills on promotion of evidence-based public health policy strategy and systems development and community-based interventions for sustainable development of healthy cities, villages and other settings in urban and rural areas. Sustainable development through national and global partnerships and capacity building for health promotion.

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|  **Skill 04 Name** | **Level** | **Last** |
| Management and Supervisory skills | Excellent | Currently Working |

Details:

Expertise is available on efficient management of Bio-medical research and training institutions and national programs. Governments are advised on management and promotion of various National Public Health and Environmental programs, particularly through capacity building at all levels of key stakeholders. Skills in conflict management and health for peace: Promotion of health intervention and activities as a bridge for peace and development. Negotiation skills for conflict management and development

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**Education:**

**Degree Name:** **Ph.D.** (Zoology: Medical Entomology, Biological Vector Control)

Education Major/Graduation institute / Year

**Title Ph.D.** Zoology: Molecular Epidemiology of dengue fever and biological control of its vector *Aedes aegypti* in Pakistan

Institution Quaid-i-Azam University Islamabad, Pakistan

**FETP 23 June 2023**

Institution14 Cohort, Field Epidemiology Training, National Institute of Health, Islamabad

**MS-PH 2025**

InstitutionHealth Services Academy, Islamabad, Pakistan

**M.Phil. Zoology/ August, 2017**

Institution Government College University Faisalabad, Punjab, Pakistan

**M.Sc. Zoology/September, 2012**

Institution University of Malakand, Khyber Pakhtunkhwa, Pakistan

**B.Sc Zoology/Botany/July 2010**

Institution University of Peshawar, Khyber Pakhtunkhwa, Pakistan

**F.Sc Pre-Medical/November, 2008**

Institution Government Postgraduate College Charsadda, Khyber Pakhtunkhwa, Pakistan

**SSC** **Science group (Math, Biology, Physics, Chemistry)/March, 2006**

Institution Al-Karim Public High School Charsadda, Khyber Pakhtunkhwa, Pakistan

* **RESEARCH EXPERIENCE AND TECHNICAL SKILLS:**
* Development of Mosquito Colonies (rearing & feeding), designing of lab Larvicidal bioassays, Minitab software, LC50 & LC90, and Goodness of fitness test, DF & P-value.
* Vector biology and Medical Entomology, Vector Surveillance, Mosquito Behavior & Ecology.
* Drug Discovery, development of Bio-insecticides, Phyto-Chemistry, GCMS, FTIR, NMR, and UV.
* Biological control of different VBDs vectors, SIT & IVM, GIS mapping.
* Molecular tools; RT-PCR, genome extraction (DNA/RNA), genome sequencing.
* Designing strategies for Dengue Vector Control, Case Response Activities, IRS & Fogging, establishment of Dengue Isolation Wards, capacity building trainings.

**ACADEMIC POJECT(s):**

* Working as Research Associate (RA) in project **“Mosquitome of Flying Syringes-*Aedes aegypti* and *Aedes albopictus* & their Fitness *vis a vis* their Competency to Transmit Infection with Changing Climate in the Region”.**
* Alliance of International Science Organizations, COMSATS University Islamabad, Pakistan and Kohsar University Murree, Pakistan

**PH.D. RESEARCH PROJECT:**

* Management & Control of *Aedes aegypti* through SIT in Pakistan.
* Molecular Epidemiology of dengue fever and biological control of its vector *Aedes aegypti* in Pakistan.
* Developing Bio-Pesticides, Insecticides, larvicides, pupicides and adulticides from medicinal plant extracts.

**M.Phil. RESEARCH PROJECT:**

* Molecular and Serotyping analysis of dengue vector *Aedes aegypti* from province Khyber Pakhtunkhwa 2017, Pakistan.

**MS-PH. RESEARCH PROJECT:**

* To reduce the insecticide exposure in malaria supervisors of district Charsadda, Khyber Pakhtunkhwa: An interventional study

**M.Sc. RESEARCH PROJECT:**

* Institutional based Prevalence & Occurrence of dengue in District Peshawar 2011, Khyber Pakhtunkhwa, Pakistan

**INTERNATIONAL CONFERENCE PROCEEDINGS:**

* + Presented (Physically) paper in the 6th ICGEB symposium on Human RNA Viruses (26-28 Oct. 2018), Fudan University Shanghai, China.
	+ Accepted paper for oral presentation in 2nd International Conference on “Tropical and Infectious Diseases” (Nov 21-22, 2019) held in Bali, Indonesia.

**PROFESSIONAL EXPERIENCE:**

**INTERNATIONAL EXPERIENCE:**

* Worked as Lecture from **2012 - 2015** of Entomology and Molecular Biology in Malalay Medical University, 6th fountain road, Ainomina, Kandahar, Ministry of Education, Afghanistan.

**EXPERIENCE AS GOVERNMENT EMPLOYEE:**

* Appointed as **Medical Entomologist** (BPS-17) for district **Mansehra** by Integrated Vector Control/Malaria Control Program Khyber Pakhtunkhwa (IVC/MCP) from 17th July 2020 to 3rd December 2020.
* Based on the performance again appointed as **Medical Entomologist** (BPS-17) for district **Mansehra** by Integrated Vector Control/Malaria Control Program Khyber Pakhtunkhwa (IVC/MCP) from 14th June 2021 to 30th November 2021.
* **Responsibilities:** Designing strategies for dengue vector control, vector surveillance, GIS mapping & Case response activities, establishment of dengue isolation wards, capacity building trainings of health workers/Malaria supervisors/LHSs/LHWs, pool identification of mosquito species, meetings with district administration & hospital in charges.
* **COORDINATOR/FACULTY AT HEALTH SERVICES ACADEMY, PRIME MINISTER’S NATIONAL HEALTH COMPLEX, PARK ROAD CHAK SHAHZAD, ISLAMABAD:**
* Working as Coordinator for Post Graduate Diploma in Medical Entomology and Disease Vector Control **(PGD-MEDVC)** at Health Services Academy, Prime Minister’s National Health Complex, Park Road Chak Shahzad, Islamabad from **2022 – 31 Jan 2025.**

Mobile: +92-3025270707, Phone: +92-51-9255592-5, Fax: +92-51-9255591

web: [www.hsa.edu.pk](http://www.hsa.edu.pk)

* **Manager INNOVATION & COMMERCIALIZATION AT OFFICE OF RESEARCH, INNOIVATOION & COMMERCIALIZATION**
* Worked as manager Innovation & Commercialization at Office of Research, Innovation and Commercialization, Health Services Academy, Prime Minister’s National Health Complex, Park Road Chak Shahzad.
* **NATIONAL INSTITUTE OF HEALTH (NIH), MINISTRY OF NATIONAL HEALTH SERVICES REGULATION & COORDINATION (MONHSRC) ISLAMABAD, PAKISTAN**
* Vector Biologist at NIH Islamabad under PSDP-IDSRS project from **13 Feb 2025 – till date.**
* web: [www.nih.org.pk](http://www.nih.org.pk) Phone: +92-51-9255099-5, Gmail: info@nih.org.pk

**RESEARCH ARTICLES:**

* 1. **Fahad, S**., Qureshi, N,A., Niaz, R., (2022). Platelets variability in dengue patients using Partial Proportional Odds Model (PPOM), Pakistan. (submitted in *Neg Tro Dis*).
	2. **Fahad, S**., Butt, M., Iqbal, A., (2019). Inclusive Entomological, Molecular and Serotyping Study of 2017 Dengue Outbreaks of Peshawar, Khyber Pakhtunkhwa (KP), Pakistan. (submitted in *Plos one*).
	3. Luqman Khan\*, Nargis Shaheen, Qaisar Hanif, **Shah Fahad** & Muhammad Usman (2018). Genetics of congenital cataract, its diagnosis, and therapeutics. *Egyptian Journal of Basic and Applied Sciences* **5(4):** 252–257.
	4. Shaheen, N., Verma, C., Pacheco-Fernandez, T., Volpedo, G., Hamid, A., Zeb, I., Shah, S.A.A., **Fahad, S.,** Iqbal, A., Ashraf, A. and Khan, A., 2021. Molecular characterization and genetic diversity of cutaneous leishmaniasis from North Eastern Pakistan. *Acta Tropica*, p.105964.
	5. **Fahad, S**., Kashif, Z., (2023). Molecular and sero-typing analysis of Dengue vector *Aedes aegypti* from province Khyber Pakhtunkhwa (KP), Pakistan (submitted in *Parasite & Vector*).
	6. **Fahad, S.,** Butt, M., Iqbal, A., Shaheen, N., Hassan, SMA., Shah, SAA., & Khan, I. (2018). Analyzing the genetic variability of Rice Weevil, Sitophilus Oryzae (coleoptra; curculionidae) in different geographic locations of district Charsadda 2018, Khyber Pakhtunkhwa (KP), Pakistan**.** *JEZS 2018; 6*(3): 1117-1121.
	7. **Fahad, S**., Butt, M., Iqbal, A., Naveed, MS., Muhammad, L., Kousar, N., & Haq, F. (2018). Institutional analysis of 2017 dengue outbreaks of Peshawar, KP, Pakistan. *JEZS 2018; 6*(2): 2475-2479.
	8. **Fahad, S**., Khan, L., Iqbal, A., Khan, I., Umar, A., & Muneer, S.F. (2018). Institutional based prevalence and occurrence of dengue disease in capital city Peshawar of province Khyber Pakhtunkhwa (KP), Pakistan. *JEZS 2018; 6*(1): 627-634.
	9. [Khan](https://www.sciencedirect.com/science/article/pii/S2314808X18302422#!), L., [Shaheen](https://www.sciencedirect.com/science/article/pii/S2314808X18302422#!), N., [Hanif](https://www.sciencedirect.com/science/article/pii/S2314808X18302422#!), Q., [Fahad](https://www.sciencedirect.com/science/article/pii/S2314808X18302422#!)**, S.,** [Usman](https://www.sciencedirect.com/science/article/pii/S2314808X18302422#!), M., (2018). Genetics of congenital cataract and its diagnosis and therapeutics. *EJBAS 2018,*
	10. Usman, M., Rajoka, M.I., Haque, A., Bakhtiar, S., Khan, L., Ibrahim, Z., Haq, F., **Fahad, S.,** Ahmad, AQ. (2018). Comparison of DNA Damage and Homocysteine Content in Blood of Thyroid Carcinoma Patients and Control Subjects in Punjab, Pakistan. *Biomed Res Ther 2018, 5*(1): 1952-1966.
	11. Khan, L., Quraishi, A.W., Shah, N., Feroz, K., Mansoor, A., Draz, O., **Fahad, S.** (2016). Prevalence and Identification of Nematodes in Chickens from District Charsadda, KPK, Pakistan. *JBE 9*(1): 274-282.

**TRAINER/FACILITATOR FOR TRAININGS:**

* Organized one day training on “INTEGRATED DISEASES SURVEILLANCE AND RESPONSE SYSTEM (IDSRS) & INTERNATIONAL HEALTH REGULATION (IHR) FOR HEALTH STAFF OF IDSRS officers NIH- Pakistan” Venue: Best Western hotel, Islamabad, 6th-08th April 2025 Pakistan.
* Organized two days training on ““INTEGRATED DISEASES SURVEILLANCE AND RESPONSE SYSTEM (IDSRS) & VECTOR-BORNE DISEASES (VBDs) MANAGEMENT FOR HEALTH STAFF OF Gilgit Baltistan- Pakistan” Venue: Avari hotel, Gilgit, 22nd -23rd May 2025 Pakistan.
* Organized two days training on ““INTEGRATED DISEASES SURVEILLANCE AND RESPONSE SYSTEM (IDSRS) & VECTOR-BORNE DISEASES (VBDs) MANAGEMENT FOR HEALTH STAFF OF AJ&K- Pakistan” Venue: Continental hotel, Muzaffar Abad, 29th-30th May 2025 Pakistan.
* Organized one day training on ““INTEGRATED DISEASES SURVEILLANCE AND RESPONSE SYSTEM (IDSRS) & VECTOR-BORNE DISEASES (VBDs) MANAGEMENT FOR HEALTH STAFF OF DHO and DG health Islamabad- Pakistan” Venue: Roomy hotel, Islamabad, 16th June 2025 Pakistan.

**NATIONAL CONFERENCE PROCEEDINGS:**

* Organized First National Symposium on “Building the Momentum for the Management and Control of Vector-borne Diseases (VBDs) in Pakistan”. 22 Feb 2021, Aquaculture & Fisheries Auditorium, Animal Sciences Institute, National Agricultural Research Center, Islamabad, Pakistan.
* International conference & workshop on “Dengue infection in Pakistan and its controlling strategies”. Dec 17-18-2019. Geo Auditorium (09:00 am to 05:00 pm), Quaid-I-Azam University Islamabad, Pakistan.
* 10th Annual Public Health conference on “Tackling inequities in health” 2nd & 3rd December 2019. Health Services Academy (HSA). Ministry of National Health Services, Regulations & Coordination Islamabad, Pakistan.
* One day conference on Building Innovative Pakistan Through Science, Technology and Innovation Policy. Feb 14-2019. Geo Auditorium (09:00 am to 05:00 pm), Quaid-I-Azam University Islamabad, Pakistan.
* International Entomological Congress (IEC-2019). April 08-10-2019. Pakistan Entomological Society and Department of Entomology, University of Agriculture Faisalabad, Pakistan.
* International Fisheries and Aquaculture Conference (IFAC-2019). January 30-31, 2019. Department of Fisheries and Aquaculture, University of Veterinary and Animal Sciences, Lahore, Pakistan.
* Two days National Workshop on “Parasites: A serious threat to humans and livestock” 14-15 March 2018. Jointly organized by Higher Education Commission Pakistan (HEC) and Department of Zoology Kohat University of Science and Technology, KPK, Pakistan.
* One Health International Conference (OHI-2017). November 13-15, 2017. University of Veterinary and Animal Sciences Jhang, Pakistan.
* One day seminar on “Climate warming impact on fish biodiversity” (26th April 2016) held at Fish Biodiversity Hatchery Chashma lake, District Mianwali, Province Punjab, Pakistan.
* One day International seminar on “Forms & Functions of Genetic element of Melanogenesis & Albinism” (17th January, 2016) Government College University Faisalabad, Province Punjab, Pakistan.
* Two Days 1st National Paleontology Seminar (December 4-5, 2014) Government College University Faisalabad, Province Punjab, Pakistan.
* Two Days 2nd National Paleontology Seminar (December 3-4, 2015) Government College University Faisalabad, Province Punjab, Pakistan.
* Two Days International Seminar & Workshop on Fish farming Practices in Punjab, Pakistan (15-16th December 2015) Department of Zoology, Government College University, Faisalabad, Province Punjab, Pakistan.
* Three days Teacher Training Workshop from September 23rd to September 25th on the topics “Classroom Management, Effective Classroom Teaching and Co-Curricular activities“ at ICMS School System Chamkani, Peshawar, Province Khyber Pakhtunkhwa, Pakistan.

**HONORS AND AWARDS:**

* Awarded Travel grant from International Centre for Genetic Engineering and Biotechnology **(ICGEB),** Italy for attending 6th ICGEB symposium on Human RNA Viruses (26- 28 Oct. 2018), Fudan University Shanghai, China.
* Awarded Fellowship for PhD. Studies from Government of Pakistan.
* Best Teacher Award at Malalay Medical University, Kandahar, Afghanistan

**MEMBERSHIP(S):**

* + President and founder of ‘**Pakistan Mosquito Control Association** (PMCA)’ Islamabad, Pakistan.
	+ Senior Vice President of ‘**The Quaidian Zoological Society’** Quaid I Azam University Islamabad, Pakistan from August 2021- till now.
	+ Member of ‘**The Zoological Society’** Government College University Faisalabad, Pakistan from August 2016- August 2017.

**REFERENCES:**

* + - **Prof. Muhammad Zubair Khan, PhD.** zubair@hsa.edu.pkProfessor, Health Services Academy Islamabad, Pakistan.
		- **Dr. Moazzam Tanveer, PhD.**  moazzam@hsa.edu.pk Assistant Prof, Health Services Academy Islamabad, Pakistan.