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# SHAHBAZ AHMAD ZAKKI

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## Summary

“Ambitious academician and researcher with a deep interest in clinical therapeutics with wide execution in research on medicinal herbs and their therapeutic potentials. Experienced in using cellular and molecular techniques, with expertise in computational data analytics, and a clear understanding of research procedures. Published pieces of research articles in peer-reviewed international journals. Eager to advance collective discipline knowledge and author high-quality scientific papers”.

## Skills

- Advanced experimental handling
- Cell Culture Techniques
- Molecular Techniques
- Mentoring and coaching skills
- Computational data analysis
- Verbal and writing communication
- Research protocols handling

## Experience

- 12/2019-til date **Assistant Professor**  
University of Haripur, KP, Pakistan
  - Serving in the Department of Public Health
  - Teaching BS Public Health Classes
  - Conducting awareness seminars
  - Trying to establish research lab
- 12/2015 – 09/2019 **Research Assistant**  
University of Toyama Toyama, Japan
  - Designed research and experimental studies, executing research techniques, tests and assays
  - Applied good documentation practices when recording data and managing source documentation
  - Utilized a high degree of accuracy and precision when preparing documentation of research procedures and data gathered
- 12/2015 – 09/2019 **Teaching Assistant**  
University of Toyama Toyama, Japan
  - Attended in-services, workshops, and seminars
  - Taught Medical English subject to medical students of University
  - Helped teachers with material generation, scheduling, and student mentoring
- 09/2009 - 08/2015 **Nutrition Supervisor**  
Health Department, Government of the Punjab Kasur, Pakistan
  - Performed medical screening of students in Schools
  - Monitored various campaigns and activities of WHO such as Polio campaign, Measles campaign, Mother & Child Health Week, Expanded Program on Immunization and anti-Dengue activities
  - Conducted School Health Sessions and Community Health Sessions for the awareness of different communicable diseases

## Education and Training

- 2019  
Toyama, Japan  
**Ph.D.** in Medical Sciences  
University of Toyama
  - Dissertation: Baicalin augments hyperthermia-induced apoptosis and modulates MAPK pathway via ROS generation
  - Made Strategies regarding Anticancer therapies such as usage of hyperthermia in combination with different herbal compounds
  - Area of research is apoptosis, cell death, autophagy, ER stress and tumorigenesis
  - Got experience in cell culture in-vitro studies
  - Explored Anticancer properties in traditionally used natural compounds
  - Investigated chemopreventive and chemotherapeutic effects of various naturally occurring compounds
  - Investigated protective regimes against environmentally hazardous chemicals
  - Learned cellular and molecular techniques such as flow cytometry, Real-Time PCR and western blotting
  - Experienced in fluorescence microscopy usage
  - Learned various experimental techniques such as detection of intracellular reactive oxygen species, calcium ions level, DNA fragmentation, and extractions of DNA, RNA and proteins
  - Learned computational analysis of biological data by using GraphPad Prism, Image Studio Digits, Image J, Flowing Software 2 and Compusyn
  - Trained in using Reference managing softwares such as Endnote and Mendeley
  - Participated in various cultural sharing activities via Toyama Ikkayaka Friendship Students Association as President
- 2014  
Lahore, Pakistan  
**Master of philosophy** in Microbiology  
The University of Lahore
  - Dissertation: Microbial analysis of chicken meat and studies leading to shelf life extension
  - 3.89/4.00 CGPA
  - Learned techniques related to isolation and purification of Bacteria and Fungi
  - Experienced in plant extraction techniques
  - Learned Thin Layer Chromatography
  - Got experienced in measuring Minimum Inhibitory Concentrations of different antibiotics and plant extracts against multiple bacteria
  - Associated with American Society for Microbiology as member
- 2008  
Bahawalpur, Pakistan  
**Bachelor** in Eastern Medicine and Surgery  
The Islamia University of Bahawalpur
  - Awarded by Gold Medal from The Islamia University of Bahawalpur
  - Awarded by Shaheed Hakim Muhammad Said Gold Medal from Hamdard Foundation Pakistan
  - Associated with Pakistan Eastern Medical Association as Ex-President and currently member

## Awards and Honors

- Gold Medal from The Islamia University of Bahawalpur
- Shaheed Hakim Muhammad Said Gold Medal from Hamdard Foundation Pakistan
- Toyama International Exchange Scholarship, Government of Japan, 2018

- JASSO Scholarship, Government of Japan, 2017
- Toyama University Scholarship for Foreign Students, Government of Japan, 2015 & 2016

### **Social Work Activities**

- Member American Society for Microbiology
- Ex-President and currently member, Pakistan Eastern Medicine Association
- Member Koshish Welfare Trust

### **Publications**

1. **Shahbaz Ahmad Zakki**, Jibran Sualah Muhammad, Jin-Long Li, Lu Sun, Meng-Ling Li, Qian-Wen Feng, Yu-Lin Li, Zheng-Guo Cui, Hidekuni Inadera. Melatonin triggers the anticancer potential of Phenylarsine Oxide via induction of apoptosis through ROS generation and JNK activation. *Metallomics* DOI: 10.1039/C9MT00238C (IF 3.5).
2. Lu Sun, Zheng-Guo Cui, **Shahbaz Ahmad Zakki**, Qian-Wen Feng, Meng-Ling Li, Hidekuni Inadera. Fenvalerate sustained Warburg effect and enhanced glucose metabolism via ROS generation in cancer cells. Submitted in *Free Radical Biology and Medicine* FRBM\_2019\_433 (IF 5.6).
3. Li M, Cui ZG, **Zakki SA**, Feng Q, Sun L, Feril LB Jr, Inadera H. Aluminum chloride causes 5-fluorouracil resistance in hepatocellular carcinoma HepG2 cells. *J Cell Physiol.* 2019;1-17 (IF 4.5).
4. Qian-Wen Feng, Zheng-Guo Cui, Yu-Jie Jin, Lu Sun, Meng-Ling Li, **Shahbaz Ahmad Zakki**, De-Jun Zhou, Hidekuni Inadera. Protective effect of dihydromyricetin on hyperthermia-induced apoptosis in human myelomonocytic lymphoma cells. *Apoptosis* 2019 Jan 25. DOI: 10.1007/s10495-019-01518-y (IF 4.0).
5. Jin-Lan Piao, Yu-Jie Jin, Meng-Ling Li, **Shahbaz Ahmad Zakki**, Lu Sun, Qian-Wen Feng, Dejun Zhou, Takashi Kondo, Zheng-Guo Cui, Hidekuni Inadera. Excessive oxidative stress in the synergistic effects of shikonin on the hyperthermia-induced apoptosis. *Current Molecular Medicine* 2018, 18, 322-334 (IF 2.1).
6. **Shahbaz Ahmad Zakki**, Zheng-Guo Cui, Lu Sun, Qian-Wen Feng, Meng-Ling Li, Hidekuni Inadera. Baicalin Augments Hyperthermia-Induced Apoptosis in U937 Cells and Modulates the MAPK Pathway via ROS Generation. *Cell Physiol Biochem* 2018; 45: 2444-2460. DOI: 10.1159/000488263 (IF 5.5).
7. Lu Sun, Zheng-Guo Cui, **Shahbaz Ahmad Zakki**, Qian-Wen Feng, Meng-Ling Li, Hidekuni Inadera. Mechanistic study of nonivamide enhancement of hyperthermia-induced apoptosis in U937 cells. *Free Radical Biology and Medicine* 120 (2018) 147–159. <https://DOI.org/10.1016/j.freeradbiomed.2018.03.017> (IF 5.6).
8. Zheng-Guo Cui, Yu-Jie Jin, Lu Sun, **Shahbaz Ahmad Zakki**, Meng-Ling Li, Qian-Wen Feng, Takashi Kondo, Ryohei Ogawa, Hidekuni Inadera. Potential hazards of fenvalerate in massive pollution influence the apoptosis sensitivity. *J Appl Toxicol.* 2017; 1-8. <https://DOI.org/10.1002/jat.3517> (IF 3.0).
9. Mushtaq Ahmad, Ghazala Shaheen, Saeed Ahmad, Muhammad Akram, Syed Muhammad Ali Shah and **Shahbaz Ahmad Zakki**. Clinical efficacy of Unani medicine Renax for treatment of Urolithiasis. *Pak. J. Pharm. Sci., Vol.30, No.5(Suppl), September 2017, pp.2003-2006* (IF 0.6).
10. **Shahbaz Ahmad Zakki**, Rabia Qureshi, Areeba Hussain, Wasif Ghias, Musarrat Sharif, Farheen Ansari. “Microbial quality evaluation and prevalence of bacteria and fungus in different varieties of chicken meat in Lahore”. *J Pharm Pharmac Sci* ISSN 2311-4673 Vol 4 (1), December 2016; 65-74.

11. Musarra Sharif, Maham Yazdani, Zonash Almas, Wasif Ghias, Rabia Qureshi, **Shahbaz Ahmad Zakki**, Farheen Ansari, Mahmood Hussain Qazi. "Bacillus species found antagonistic against bacteria isolated from currency notes in local circulation". Biomedical Letters Vol 2 (2), 2016; 86-90.
12. Areeba Hussain, **Shahbaz Ahmad Zakki**, Rabia Qureshi. "Epidemiological Study Of Dermatophytosis In Okara, Pakistan". J Pharm Pharmac Sci ISSN 2311-4673 Vol 4 (1), June 2016; 184-187.
13. Areeba Hussain, **Shahbaz Ahmad Zakki**, Rabia Qureshi. "In vitro susceptibility testing of dermatophytes on urea". J Pharm Pharmac Sci ISSN 2311-4673 Vol 3 (2), December 2015; 78-81.
14. Sadia Shakeel, Khan Usmanghani, Allah Nawaz, **Shahbaz Ahmad Zakki**, Zheng-Guo Cui, Shugufta Abraham, Tanveer Ahmad Mir. "Evaluation of in vitro lipoxigenase Inhibition and Antioxidant Activity of Polyherbal Formulation Entoban". J Pharm Pharmac Sci ISSN 2311-4673 Vol 3 (2), December 2015; 82-88.
15. **Shahbaz Ahmad Zakki**, Rabia Qureshi, Areeba Hussain, Maham Yazdani. "Antibacterial activity of antibiotics, herbal extracts and commercially available essential oils and studies leading to shelf-life extension of chicken meat". J Pharm Pharmac Sci ISSN 2311-4673 Vol 3 (1), June 2015; 44-53.
16. Rabia Qureshi, **Shahbaz Ahmad Zakki**, Areeba Hussain. "Prevalence and biological activities of Bacillus species isolated from cooked and raw rice". J Pharm Pharmac Sci ISSN 2311-4673 Vol 3 (1), June 2015; 54-59.

#### Conferences and Seminars

1. Cui ZG, Piao JL, Li ML, Sun L, **Zakki SA**, Inadera H. Excessive oxidative stress in the synergistic effects of shikonin on the hyperthermia-induced apoptosis. The 88th Academic Conference of The Japanese Society for Hygiene; March, 2018, Tokyo, Japan. P1-32.
2. Li ML, Cui ZG, **Zakki SA**, Feng QW, Sun L, Inadera H. AlCl<sub>3</sub> induces chemotherapy resistance against 5-FU in human hepatocellular carcinoma cell line HepG2. The 88th Academic Conference of The Japanese Society for Hygiene; March, 2018, Tokyo, Japan. P2-14.
3. Feng QW, Cui ZG, Jin YJ, Sun L, Li ML, **Zakki SA**, Kondo T, Inadera H. Protective effects of dihydromyricetin on hyperthermia-induced apoptosis in Human Myelomonocytic lymphoma U937 cells. The 88th Academic Conference of The Japanese Society for Hygiene; March, 2018, Tokyo, Japan. P1-11.
4. **Zakki SA**, Cui ZG, Sun L, Li ML, Feng QW, Inadera H. Baicalin enhanced hyperthermia-induced apoptosis with involvement of MAPK pathway. The 34th Academic Conference of The Japanese Society of Thermal Medicine; September, 2017, Kyoto, Japan. P4.
5. Sun L, Cui ZG, **Zakki SA**, Feng QW, Inadera H. Mechanistic study of Nonivamide enhancement of hyperthermia-induced apoptosis in U937 cells. The 34th Academic Conference of The Japanese Society of Thermal Medicine; September, 2017, Kyoto, Japan. P5.
6. Feng QW, Cui ZG, Jin YJ, Sun L, Li ML, **Zakki SA**, Kondo T, Inadera H. Protective effects of dihydromyricetin on hyperthermia-induced apoptosis in Human Myelomonocytic lymphoma U937 cells. The 34th Academic Conference of The Japanese Society of Thermal Medicine; September, 2017, Kyoto, Japan. P3.
7. **Zakki SA**, Cui ZG, Sun L, Feng QW, Inadera H. Synergistic effects of Baicalin and hyperthermia in induction of apoptosis and its underlying mechanism in U937 cells. The 87th Academic Conference of The Japanese Society for Hygiene; March, 2017, Miyazaki, Japan. P2-35.

8. Sun L, Cui ZG, **Zakki SA**, Feng QW, Inadera H. Mechanistic study of Nonivamide enhancement of hyperthermia-induced apoptosis in U937 cells. The 87th Academic Conference of The Japanese Society for Hygiene; March, 2017, Miyazaki, Japan. P2-36.
9. Cui ZG, **Zakki SA**, Sun L, Feng QW, Jin YJ, Inadera H. Enhancement of hyperthermia-induced apoptosis by Nonivamide and its molecular mechanism. The 16th Molecular Prevention and Environmental Medicine Study Group; February 26-28, 2017, Kumamoto, Japan.
10. Cui ZG, Jin YJ, Sun L, **Zakki SA**, Feng QW, Inadera H. Withaferin A synergistically enhances apoptosis induced by hyperthermia, implication for cancer therapy. The 8th National Annual Convention of the Philippine Society for Developmental Biology. 2016 Oct 22; Manila.
11. Cui ZG, Jin YJ, Sun L, **Zakki SA**, Inadera H. The changes on the apoptosis sensitivity induced by low dose fenvalerate exposure. The 7th Philippine Society for Cell Biology Annual National and 1st International Convention and Scientific Meeting. 2016 Oct 20-21; Manila.