



# Javeria Maqbool

## EDUCATION AND TRAINING

### Research Doctorate (PhD)

**Sapienza University of Roma** [ 02/11/2021 – 27/01/2025 ]

**City:** Rome | **Country:** Italy | **Thesis:** Exploring the role of gut microbiota and ketogenic diet on glioma growth and tumor microenvironment

**Field of study:** Neuroscience, Brain tumors, Gut Brain Axis

- Animal handling (mice)
- Animal dissection: Transcardial perfusion
- Mouse surgery/Stereotactic injections
- Primary cell culture
- Tumor cells culturing
- Analysis in cultured and primary cells
- Colorimetric Assays
- Immunofluorescence staining
- Microscopy
- Calcium Imaging
- Proficiency in imaging analysis software such as ImageJ
- Expertise in tumor biomarkers
- RNAseq Analysis
- Magnetic activated cell sorting isolation
- Data analysis

### M.Phil Physiology (CGPA: 3.98/4.00)

**Government College University** [ 21/09/2017 – 30/09/2019 ]

**Address:** Jhang road, Near Children Hospital , 38000 Faisalabad (Pakistan) | **Website:** <https://gcuf.edu.pk/>

#### **Title of Thesis:**

Assessment Of Dose Dependent Response Of Crude Cannabis Sativa L. In Modulating Molecular Markers And Histopathological Changes After An Induced Nerve Injury In Mouse Model.

#### **Curriculum:**

Physiology of blood and cardiovascular system, Physiology of nervous system, Physiological techniques, Advances in clinical endocrinology, Advanced cell physiology, Advanced immunology, Research methods in bio-sciences, Statistics for research.

#### **Practical skills:**

Animal handling (mice), Animal dissection/surgery (mice), Muscle harvesting (Mice) (Gastrocnemius, Tibialis anterior, and soleus muscle), Brain harvesting (Mice), Hotplate test (Mice), Gait analysis (Mice), Grip strength analysis (Mice), Microscopy, Histopathology, Oxidative stress analysis (Total antioxidant capacity analysis, Total oxidant status analysis, Arylesterase analysis, Paraoxonase analysis), ELISA (kit method), DNA extraction, RNA extraction and Gel electrophoresis.

### BSc (Hons.) Physiology (CGPA: 3.63/4.00)

**Government College University** [ 15/10/2013 – 24/06/2017 ]

**Address:** Kotwali Road, Gurunanakpura, 38000 Faisalabad (Pakistan) | **Website:** <https://gcuf.edu.pk/>

#### **Curriculum:**

Functional anatomy and physiology-I, Biochemistry-I, Cell and molecular biology-I, Microbial anatomy and physiology, Functional anatomy and physiology-II, Cell and molecular biology-II, Biochemistry-II, Cell and molecular biology-III, Gastrointestinal physiology, Pulmonary physiology, Physiology of blood and extracellular fluid, Renal physiology, Cardiovascular physiology, General immunology, Nerve and muscle physiology, Homeostasis, Neurophysiology, Endocrinology, Electrophysiology, Reproductive physiology, Physiology of sensory system, Comparative physiology,

General and systemic pharmacology, Physiology of health, fitness and exercise, Physiological techniques, Biology of development, Human and animal behavior and Pathophysiology and Internship.

#### **Practical skills:**

Epidemiological research on "Obese and Diabetic patients" in Faisalabad city, Pakistan.

Microsoft office (MS office, MS excel).

## **WORK EXPERIENCE**

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### **Research Assistant**

**Government College University** [ 06/11/2020 – 07/09/2021 ]

City: Faisalabad | Country: Pakistan

After my M.Phil, I continued my research career as a research assistant in my same lab and I was involved in different projects and learnt a lot of things like in In vitro studies I worked with Glioma cells culturing and learnt how to do primary culture and learnt various protocols like MTT assay, co-culturing. I also trained for stereotactic surgery of mice brain. During this period I did Real time PCR, RNA extraction, DNA extraction, Immunohistochemistry, Immunofluorescence staining and analysed the data from all these experiments. So I have a full command on all these techniques.

### **University teaching assistant**

**The University of Faisalabad** [ 01/11/2017 – 27/02/2018 ]

City: Faisalabad | Country: Pakistan

I delivered lecture of Human anatomy and physiology, Biochemistry to undergraduate students, directed practical work in the research laboratory, including complete blood count, gel electrophoresis, erythrocyte sedimentation rate, centrifugation, animal dissection and organ harvesting, and many others related to subjects. I also coordinated Students affairs and i was also a discipline coordinator. Furthermore, I was also involved in supporting teachers for the management of class behavior and had the responsibility to inculcate the self-confidence and professional skills in students.

### **Internee**

**District Headquarter Hospital** [ 01/02/2017 – 14/05/2017 ]

City: Faisalabad | Country: Pakistan

I did internship in the diagnostic laboratory as it was a compulsory part of my undergraduate studies. During this internship i learnt to perform diagnostic tests, including Biochemistry (lipid profile test, liver function test, HbA1c, renal function test, electrolytes, blood urea nitrogen), Hematology (complete blood count and erythrocyte sedimentation rate), Histology, and PCR and i also learnt phlebotomy and biopsy.

## **LANGUAGE SKILLS**

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**Mother tongue(s):** Urdu

**Other language(s):**

**English; PTE Academic English Test**

**LISTENING C1 READING C1 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## **PUBLICATIONS**

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### **Book Chapter**

**1) Interventional approaches in Peripheral Nerve Injuries: Pathogenesis and current status (2022).**

(Ghulam Hussain, Azhar Rasul, Haseeb Anwar, Shoaib Ahmad Malik, **Javeria Maqbool**, Ali Imran, Hafiz Ansar Rasul Suleria) - Bioactive compounds from multifarious natural foods for human health.

**2) Neuroprotective effects of polyphenols (2021).**

(Ali Imran, **Javeria Maqbool**, Azhar Rasul, Haseeb Anwar, Shoaib Ahmad Malik, Rabia Akram, Faiqa Sajid, Amna Rashid Tariq, and Ghulam Hussain). *Frontiers in Natural Product Chemistry*.

**3) Natural compounds as versatile potential therapeutic agents of lung cancer (2021).**

(Rabia Akram, Haseeb Anwar, Azhar Rasul, Shoaib Ahmad Malik, **Javeria Maqbool**, Faiqa Sajid, and Ghulam Hussain). Springer.

**4) Human gut microbiota and its association with pathogenesis and treatments of neurological diseases (2020).**

(Zhong Chen; **Javeria Maqbool**; Faiqa Sajid; Ghulam Hussain; Tao Sun). Elsevier.

## Review Articles

**5) Dietary molecules as promising regenerative agents for peripheral nerve injury: An emerging nutraceutical-based therapeutic approach (2021).**

(Haseeb Anwar, Azhar Rasul, Javed Iqbal, Nazir Ahmad, Ali Imran, Shoaib Ahmad Malik, Fazeela Ijaz, Rabia Akram, **Javeria Maqbool**, Faiqa Sajid, Amna Rashid Tariq, Tao Sun, and Ghulam Hussain) - *Journal of Food Biochemistry*.

**6) The impact of viral infection on brain functioning, as well as the psychological consequences of COVID-19 on our daily life (2021).**

(**Javeria Maqbool**, Azhar Rasul, Haseeb Anwar, Rabia Akram, Faiqa Sajid, Marek Kieliszek and Ghulam Hussain \*) - *Biomolecules*.

**7) Putative Roles of Plant-Derived Tannins in Neurodegenerative and Neuropsychiatry Disorders: An Updated Review (2019).**

(Ghulam Hussain, Jia Huang, Azhar Rasul, Haseeb Anwar, Ali Imran, **Javeria Maqbool**, Aroona Razzaq, Nimra Aziz, Ehtisham ul Haq Makhdoom, Muhsin Konuk, and Tao Sun) - *MOLECULES*.

## Research Papers

**8) Ketogenic diet induces an inflammatory reactive astrocytes phenotype reducing glioma growth (2024).**

(Maria Rosito; **Javeria Maqbool**; Alice Reccagni; Micol Mangano; Tiziano D'Andrea; Arianna Rinaldi; Flavia Trettel; Giuseppina D'Alessandro; Myriam Catalano; Sergio Fucile; Cristina Limatola) - *Cellular and Molecular Life Sciences* (Springer)

**9) Antibiotics treatment promotes vasculogenesis in the brain of glioma-bearing mice (2024).**

(Rosito Maria; **Maqbool Javeria**; Reccagni Alice; Giampaoli Ottavia; Sciubba Fabio; Raspa Marcello; Cordella Federica; Tondo Lucrezia; DI Angelantonio Silvia; Antonangeli Fabrizio; Trettel Flavia; Miccheli Alfredo; D'Alessandro Giuseppina; Limatola Cristina) - *CELL DEATH & DISEASE* (Nature Group)

**10) Comparative Evaluation of Ethyl acetate and n-Hexane extracts of Cannabis sativa L. leaves for muscle function restoration after peripheral nerve lesion (2023).**

(**Maqbool Javeria**; Anwar Haseeb; Rasul Azhar; Imran ali; Saadullah Malik; Malik Shoaib; Shabbir asghar; Akram rabia; Sajid faiqa; Zafar Shamalia; Saeed Suman; akram numan; kieliszek marek; Hussain Ghulam; Islam Saiful) - *Food Science & Nutrition*.

**11) Protective effect of a strain-specific probiotic formulation (Renadyl) following Gentamicin induced nephrotoxicity in albino rats (2022).**

(Rabia Akram, Sadia Khalil, **Javeria Maqbool**, Arslan Iftikhar, Arslan Shaukat, Tehreem Asghar, Faiqa Sajid, Nayab, Nimra Iqbal, Haseeb Anwar). *National Journal of medical and health sciences*.

**12) Methanolic extract of Foeniculum vulgare (Fennel) escalates functional restoration following a compression injury to the sciatic nerve in a mouse model (2021).**

(**Javeria Maqbool**, Azhar Rasul, Javed Iqbal, Haseeb Anwar, Ali Imran, Shoaib Ahmad Malik, Shamaila Zafar, Fazeela Ijaz, Faiqa Sajid, Khadija Uraib, Rabia Akram, Asghar Shabbir, Tao Sun and Ghulam Hussain). *Food Science & Nutrition*.

**13) Indian ginseng (N.Hexane and Chloroform extracts) offers ameliorating effects on muscle function restoration in a mouse model of peripheral nerve injury (2021).**

(Faiqa Sajid, Haseeb Anwar, Azhar Rasul, Ali Imran, Shoaib Ahmad Malik, Shamaila Zafar, **Javeria Maqbool**, Rabia Akram, Fazeela Ijaz, Amna Rashid Tariq, Ghulam Hussain). *International Journal of Biosciences*.

**14) Calotropis Procera (leaves) supplementation exerts curative effects on promoting functional recovery in a mouse model of peripheral nerve injury (2021).**

(Shamaila Zafar,Azhar Rasul,Javed Iqbal,Haseeb Anwar,Ali Imran,Farhat Jabeen,Asghar Shabbir,Rabia Akram,**Javeria Maqbool**, Faiqa Sajid,Muhammad Umair Arshad,Ghulam HussainandSaiful Islam). Pakistan Journal of Pharmaceutical Sciences.

**15)Moringa oleifera (crude leaf powder) ameliorates the muscles function repossession following an induced insult to the Sciatic nerve in a mouse model (2020).**

(Aroona Razzaq,Shoaib Ahmad Malik,Azhar Rasul,Muhammad Qasim,Ali Imran,Shamaila Zafar,Syed Kashif Shahid Kamran,**Javeria Maqbool**,Muhammad Imran;Ghulam Hussain ).Food Science & Nutrition.

## CONFERENCES AND SEMINARS

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### Seminars

Attended half day seminar on **“Diabetes Mellitus”** at **GCUF**.

Attended half day seminar on **“Neurological Disorders”** at **GCUF**.

Attended International Seminar of **Department of Physiology** in collaboration with **The Biotech Scientific International** at **GCUF**.

### Conferences

Two days **International Conference of Applied Zoology** at **GCUF**.

Two days **International Conference of Institute of Home & Food Sciences** at **GCUF**.

Three days **International Conference of Brainstorming Research Assembly For Young Neuroscientists (BRAYN)**.

### Workshop

Two-days training workshop From **Ramon Y Cajal To CryoEM Course for Advanced Microscopy** at **Sapienze University of Rome**.

One-day training workshop on **Storytelling & grant/paper writing** at **Sapienze University of Rome**.

General **lab training, health & safety course** in workplace at **Sapienze University of Rome**.

One-day training workshop on **Primer designing tool & troubleshooting** at **GCUF**.

IBRO GLOBAL ENGAGEMENT WORKSHOP ON **NEURODEGENERATIVE DISEASES-** (Virtually).

IBRO-APRC Nepal Associate School on **Neurophysiology of Pain Mechanism to Medicine-** (Virtually).

## HONOURS AND AWARDS

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### Scholarship

-PhD Fellowship 37th cycle, Sapienza University Rome.

-Merit Based scholarship in M.Phil (Physiology) awarded by Punjab educational endowment fund (PEEF).

## COMMUNICATION AND INTERPERSONAL SKILLS

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### Communication skills

Communicational skills developed through class presentations and teaching experience.

### Organisational / managerial skills

Organizational skill gained through being the member of seminar conducting team at departmental level.

### Job-related skills

Good command on delivering lectures.

Animal handling (part of my research work).

07/04/2025

