



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE \_5129\_

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di di Bioscienze\_\_\_\_\_

Scientist- in - charge: \_\_\_\_\_Prof. Borsello\_\_\_\_\_

[Amer Ahmed Ghalb Faraa]

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Faraa
Name	Amer Ahmed Ghalb

### PRESENT OCCUPATION

Appointment	Structure
PhD student	Università di Siena

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Bachelor	Biochemistry	Islamia University of Bahawalpur	2010-2014
Specialization			
PhD	Life Sciences	University of Siena	2018-In progress
Master	Biochemistry	Islamia University of Bahawalpur	2014-2016
Degree of medical specialization			
Degree of European specialization			

### REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
March 2019	Italian Society of Pharmacology	Rome



## FOREIGN LANGUAGES

Languages	level of knowledge
Arabic	Native
English	Fluent
Italian	Beginner

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2018	Fully funded PhD scholarship, The University of Siena, Italy.
2018	Fully funded PhD scholarship, Chinese Academy of Agricultural Science, China, (Left)
2017	Golden Medal for attaining 1 <sup>st</sup> position in MS (Biochemistry), the Islamia University of Bahawalpur
2010	Cultural Exchange Program Scholarship for Bachelor, Ministry of Higher Education,
2014	Cultural Exchange Program Scholarship for Master, Ministry of Higher Education

## TRAINING OR RESEARCH ACTIVITY

During bachelor and master education I carried my research work has two avenues 1) Screening thermophilic bacterial strains from Cholistan desert, Pakistan for the presence of  $\beta$ -glucosidase gene and characterising this enzyme under cellulose containing medium, and 2) biological activities: antioxidant, anti-bacterial, and enzyme inhibition (e.g., urease and  $\alpha$ -glucosidase) activities.

During PhD, my research focused on 1) investigating *in vitro* functional interplay between a series of dietary flavonoids and perivascular adipose tissue (PVAT) using the rat aorta rings as in a model, 2) assessing the vascular activity and cardiovascular safety of many natural and synthetic compounds, and 3) assessing the vascular activity of dynamin and mitochondrial fission inhibitor and the coupling mechanism of smooth muscle contraction to mitochondrial fission.

## PROJECT ACTIVITY

Year	Project
2018	<i>In vitro</i> Functional interplay between Perivascular adipose tissue and flavonoids: critical role of beta3 receptor and superoxide anion
2015	Screening and Characterization of $\beta$ -Glucosidase of Rhizospheric Bacteria Isolated from Cholistan Desert
2014	Screening of Bacterial Isolates from Cholistan Desert for $\beta$ -Glucosidase gene Using Molecular Approach



## CONGRESSES AND SEMINARS

Date	Title	Place
March 08-13, 2021	Modulation by flavonoids of vascular reactivity to noradrenaline: role of perivascular adipose tissue (PVAT)	40 <sup>th</sup> congress of Italian Society of pharmacology-virtual
November 20-23, 2019	Modulation of quercetin vasoactivity by perivascular adipose tissues on rat aorta rings	39 <sup>th</sup> congress of Italian Society of pharmacology, Florence, Italy
December 4-7, 2014	Screening of Bacterial Isolates from Cholistan Desert for $\beta$ -Glucosidase gene Using Molecular Approach	12 <sup>th</sup> International Conference of Biochemistry and Molecular Biology, The Islamia University of Bahawalpur, Pakistan

## PUBLICATIONS

Original journals articles
<b>Ahmed, A.</b> , Fusi, F., Valoti, M., 2021. "In vitro Functional interplay between Perivascular adipose tissue and flavonoids: critical role of beta3 receptor and superoxide anion", submitted
<b>Ahmed, A.</b> 2021. Flavonoids and cardiovascular risk factors: a review. <i>Pharmadvances</i> , 3(3):521-547
Saponara, S., Fusi, F., Iovinelli, D., <b>Ahmed, A.</b> , Trezza, A., Spiga, O., Sgaragli, G., Valoti, M., 2021. Flavonoids and hERG channels: Friends or foes? <i>European Journal of Pharmacology</i> , 899, 174030. IF= 4.432
Carullo, G., <b>Ahmed, A.</b> , Trezza, A., Spiga, O., Brizzi, A., Saponara, S., Fusi, F., Aiello, F., 2021. A multitarget semi-synthetic derivative of the flavonoid morin with improved in vitro vasorelaxant activity: Role of CaV1.2 and KCa1.1 channels. <i>Biochemical Pharmacology</i> 185, 114429. IF= 5.858
Carullo, G., <b>Ahmed, A.</b> , Trezza, A., Spiga, O., Brizzi, A., Saponara, S., Fusi, F., Aiello, F., 2020. Design, synthesis and pharmacological evaluation of ester-based quercetin derivatives as selective vascular KCa1.1 channel stimulators. <i>Bioorganic Chemistry</i> 105, 104404. IF=5.275
Lamraoui, I., Eltoukhy, A., Wang, J., Lamraoui, M., <b>Ahmed, A.</b> , Jia, Y., Lu, T., Yan, Y., 2020. Biodegradation of Di (2-Ethylhexyl) Phthalate by a novel Enterobacter spp. Strain YC-IL1 Isolated from Polluted Soil, Mila, Algeria. <i>International Journal of Environmental Research and Public Health</i> 17, 7501. IF=3.390
Carullo, G., <b>Ahmed, A.</b> , Fusi, F., Sciubba, F., Di Cocco, M.E., Restuccia, D., Spizzirri, U.G., Saponara, S., Aiello, F., 2020a. Vasorelaxant Effects Induced by Red Wine and Pomace Extracts of Magliocco Dolce cv. <i>Pharmaceuticals</i> 13, 87. IF=5.863
Waratchareeyakul, W., Fusi, F., Durante, M., <b>Ahmed, A.</b> , Knirsch, W., Mas-Claret, E., Mulholland, D.A., 2020. Vasorelaxing Activity of Stilbenoid and Phenanthrene Derivatives from <i>Brasiliorchis porphyrostele</i> : Involvement of Smooth Muscle CaV1.2 Channels. <i>Planta Med</i> 86, 631-642. IF=3.352



Cuong, N.M., Son, N.T., Nhan, N.T., Khanh, P.N., Huong, T.T., Tram, N.T.T., Sgaragli, G., <b>Ahmed, A.</b> , Trezza, A., Spiga, O., Fusi, F., 2020. Vasorelaxing Activity of R-(-)-3'-Hydroxy-2,4,5-trimethoxydalbergiquinol from Dalbergia tonkinensis: Involvement of Smooth Muscle CaV1.2 Channels. <i>Planta Med</i> 86, 284-293. IF=3.352
Carullo, G., Durante, M., Sciubba, F., Restuccia, D., Spizzirri, U.G., <b>Ahmed, A.</b> , Di Cocco, M.E., Saponara, S., Aiello, F., Fusi, F., 2019. Vasoactivity of Mantonico and Pecorello grape pomaces on rat aorta rings: An insight into nutraceutical development. <i>Journal of Functional Foods</i> 57, 328-334. IF=4.451
<b>Ahmed, A.</b> , Sumreen, A., Bibi, A., Nasim, F.H., Batool, K., 2019. In silico Approach to Elucidate Factors Associated with GH1 $\beta$ -Glucosidase Thermostability. <i>J Pure Appl Microbiol</i> 13, 1953-1968.
<b>Ahmed, A.</b> , Nasim, F.H., Batool, K., Bibi, A., Rafi, S., 2018. Characterization of Thermophilic $\beta$ -Glucosidase of Rhizospheric Bacterial Strain (LSKB15) Isolated from Cholistan Desert, Pakistan. <i>American Journal of Microbiological Research</i> 6, 173-180.
<b>Ahmed, A.</b> , Bibi, A., 2018. Fungal cellulase; production and applications: minireview. <i>Int. J. Health Life Sci</i> 4, 19-36. Cited by 21
<b>Ahmed, A.</b> , Aslam, M., Ashraf, M., Nasim, F.H., Batool, K., Bibi, A., 2017. Microbial $\beta$ -Glucosidases: Screening, Characterization, Cloning and Applications. <i>Journal of Applied &amp; Environmental Microbiology</i> 5, 57-73. Cited by 10
<b>Ahmed, A.</b> , Batool, K., Bibi, A., 2017. Microbial $\beta$ -glucosidase: sources, production and applications. <i>Journal of Applied &amp; Environmental Microbiology</i> 5, 31-46. Cited by 70
Congress proceedings
Fusi F, Trezza A, Iovinelli D, <b>Ahmed A</b> , Spiga O, Sgaragli G, Valoti M, Saponara S The surge of flavonoids as novel, fine regulators of cardiovascular ion channels: friends or foes?. 1st Joint meeting on Natural Products Pharmacology SIF "submitted".
Gabriele C, Sarah M, <b>Ahmed A</b> , Trezza A, Spiga O, Saponara S, Fusi F, Aiello F. Sclareolide-based small molecules, TRPV4/CaV1.2 modulators, as new vasodilating agents. 7th International Electronic Conference on Medicinal Chemistry.
Aluani D, Yordanov Y, <b>Ahmed A</b> , Gorelli B, Fusi F, Valente A, Riganti C, Tzankova V, Saponara S. <i>In vitro</i> biocompatibility and cardiovascular safety evaluation of ruthenium organometallic compounds, effective against MDR cancer cells. 4th Annual Conference "New diagnostic and therapeutic tools against multidrug resistant tumors", Prague, 6-8 September 2021
Saponara S, <b>Ahmed A</b> , Frosini M, Gorelli B, Fusi F. In vitro assessment of venom cardiovascular pharmacology and safety: a trip from single cells to isolated organs. EUVEN 2021: 1st International Congress of the European Venom Network EUVEN (CA19144), 14-16 September 2021 - Virtual Congress
<b>Ahmed A</b> , Mancini G, Cosi S, Fusi F, Valoti M. "Modulation by flavonoids of vascular reactivity to noradrenaline: role of perivascular adipose tissue (PVAT)" in 40th congress of Italian Society of pharmacology digitally held between 08-13 March, 2021.
<b>Ahmed A</b> , Tagliafierro S, Conti S, Fusi F, Valoti M. Modulation of quercetin vasoactivity by perivascular adipose tissues on rat aorta rings. In 39th congress of Italian Society of



pharmacology held in Florence between 20-23 November, 2019.

**Ahmed A**, Nasim FH, Ejaz S. "Screening of Bacterial Isolates from Cholistan Desert for B-Glucosidase gene Using Molecular Approach" in 12th International Conference of Biochemistry and Molecular Biology organized by Pakistan Society for Biochemistry and Molecular Biology (PSBMB) at The Islamia University of Bahawalpur, December 4-7, 2014

#### OTHER INFORMATION

##### TRAINING COURSES

Animal experimentation and bioethics course; 48 hour course, organized by The university of Siena, Italy, during 20<sup>th</sup> October to 1<sup>st</sup> December, 2020

Training course on workplace health and safety in high-risk scientific areas, 16 hours course, organized by The University of Siena, Italy, March, 5-6, 2019

Biosafety Training Workshop for Young Scientists organized by American Society of Microbiology, NAYS (Pakistan), and The Islamia University of Bahawalpur at the Department of Biochemistry and Biotechnology in The Islamia University of Bahawalpur, Pakistan, April 23, 2014

Internship at pathology department of the Shaukat khanum cancer hospital and research centre, Lahore, Pakistan, August 1-30, 2013,

##### Co-Supervisory

During PhD, I monitored the following master students during their thesis

Carmelo Spinella, Gioele Mancini, Stefania Cosi, Gemma Elisabetta Di Pumpo, Anna Liace

##### Mentorship

Practical course on pharmacological assays and dosages to the students of chemistry and pharmaceutical technology, department of biotechnology, chemistry and pharmacy, the University of Siena, during 08-26 March, 2021

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Siena, 13-12-2021