

# Dr. Jamaluddin Shaikh

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يعمل في الجامعة: منذ 2010

:Teaching Philosophy My personal teaching philosophy is composed of the following points

As a teacher it is my duty to challenge and support students according to their individual strengths • and needs. I pre-assess students' daily progress to determine the instruction they need and modify lessens and assignments accordingly. Furthermore, I provide varied opportunities for students to .communicate and use their knowledge

Students are naturally curious. They wonder about and are intrigued by the world around them. • Student learn best when they construct their own knowledge through exploration and discussion. Classroom discussion is an essential part of student exploration, as this is the space where students use .language to synthesize their knowledge and make them public

It is crucial that each student is publicly recognized for his and her strengths and contributions and • given credibility within the classroom. This makes the classroom a safe space where students can publicly make brilliant discoveries

A teacher is always a student. The classroom should be fresh and exciting, a place to try and adapt • new ideas. Most importantly, through personal reflection and student feedback, I am to refine my .teaching practice on a daily basis

**Research Interests:** Brief description of research expertise and research interests: I use a multidisciplinary approach to evaluate the effects of drugs on the brain. Much of my current research focuses on the development of new drugs for the treatment of neurological and psychiatric disorders. Recently, we developed new classes of drugs with powerful anti-cocaine and anti-methamphetamine actions in animals. Much of research is now focused on optimizing these compounds, and identifying the cellular and molecular mechanisms through which they exert their beneficial actions. In addition, we recently developed and characterized a new class of compounds that changes animal behavior and neuronal structure and function in ways that predict favorable antidepressant potential. By targeting new mechanisms of action, these compounds are expected to help individuals who do not respond to

.existing medications

Academic Honors Junior Research Fellowship from University Grants Commission (UGC), India Senior Research Fellowship from University Grants Commission (UGC), India Young Scientist Travel Award for American Society of Pharmacology and Experimental Therapeutics Annual meeting at Experimental Biology 2006 meeting, San Francisco, USA First position in poster presentation in 25th Annual Meeting of the Southeastern Pharmacology Society, Nov. 4-5, 2004 at Oxford, Mississippi, USA

### المؤهلات الأكاديمية

Ph.D., University of Calcutta, 2003

## أنشطة التدريس

Pharmacology I, This course is designed to impart students an in-depth understanding about the general pharmacological principles. This includes the mechanisms of drug action at molecular level and various processes involving drug-cell interactions. Basic pharmacology is reinforced with the introduction of clinical pharmacological concepts like bioavailability, volume of distribution, half life of drugs and clinical applications of therapeutic drug monitoring. In addition to general pharmacology, this course deals with the drugs acting on the autonomic nervous system and the central nervous system., 2010-Till date

Pharmacology III. This course is designed to impart students an in-depth understanding about the antimicrobial drugs, immunosuppressant agents and drugs used in the treatment of malignancies and endocrine disorders. This includes the mechanisms of action, antimicrobial spectrum, pharmacokinetics, adverse effects and drug interaction of all anti-bacterial, anti-viral, anti-fungal, anti-protozoal, anti-helminthic and anti-cancer drugs. The pharmacology of corticosteroids, immunosuppressant drugs and drugs used in the treatment of diabetes mellitus and thyroid disorders is also included in this course., 2010-Till date

Biochemistry, Biochemistry seeks to explain life in chemical terms and it covers the chemistry of the molecules and macromolecules in the living system. Biochemistry is designed to study molecules and macromolecules in living systems through an application of the principles of .organic and physical chemistry as well as molecular biology and genetics

Bacteriology, The course covers the basic cell structure, survival, colonization, and genetics. The course also stresses the role of bacteria in environment and on human. There is special emphasis on the spread and control of bacteria. The course teaches the basic laboratory techniques, major groups of bacteria, microbial diseases (sexually-transmitted, airborne, foodborne, and waterborne), and differentiating bacteria species using biochemical tests as well as antibiotics .and chemotherapeutic agents

Toxicology, The course is designed to provide students with basic knowledge about the history of toxicology; toxicant types; general principle of toxicology; general management of poisoned patient. Also the course provides detailed information about signs of toxicity, management and mechanism of toxicity of drugs listed in the course syllabus and the common toxic effects .associated with air pollutants and pesticides

Chemotherapy, The Chemotherapy Tutorial emphasizes self-directed learning. It provides the students an in-depth understanding and knowledge on the antimicrobial and anticancer drugs and .corticosteroids. It also provides up-to-date information on immunosuppressant

Cell Biology, This course deals primarily with eukaryotic cells. Lectures are devoted to structural details and the molecular functions of the different parts of the cell. Lectures will introduce topics such as organelle structure & function, cell- cell interaction, and cell types and function in different tissues. Lectures also deal with signal transduction and cellular functions that are required for cell growth and differentiation. The course also includes cytochemistry for identifying .normal and abnormal cells

Microbiology and Immunology. This course is an introduction to basic Microbiology, virology and microbiology. Emphasis on understanding the fundamentals of these disciplines, with examples relevant to clinical and diagnostic medicine. Topics covered in Bacteriology includes: bacterial structure, classification and growth; mechanisms of bacterial pathogenesis; sterilisation and disinfection. Virology section will include: virus classification, structure and replication; pathogenesis, epidemiology and control of virus infections. Immunology section will cover Innate immunity; specific humoral effector mechanisms; cells and tissues of the immune system; antigen recognition by T cells; cell-mediated immunity, hypersensitivity; autoimmunity; immunodeficiency

General and Neuronal Pharmacology, This course is designed to impart students an in-depth understanding about the general pharmacological principles. This includes the mechanisms of drug action at molecular level and various processes involving drug-cell interactions. Basic pharmacology is reinforced with the introduction of clinical pharmacological concepts like bioavailability, volume of distribution, half life of drugs and clinical applications of therapeutic drug monitoring. In addition to general pharmacology, this course deals with the drugs acting on the autonomic nervous system and the central nervous system., 2023-till date

الأنشطة البحثية

الاهتمامات البحثية ـ

Neuropharmacology
Biochemical Pharmacology
Toxicology and Neurotoxicology
Drug Development

Neurobiology

العرض في المؤتمرات ــ

Reem Khalfan Almaqbali and Jamaluddin Shaikh In-Vivo Screening of Antidepressant Activity of Methanolic and Aqueous Extracts from Withania qaraitica in Mice, 6th International Conference of Pharmacy and Medicine (ICPM) held on 18-20 January, 2022, Sharjah Research Technology and Innovation Park, Sharjah, United Arab Emirate, 20/01/2022

Phytochemical and Pharmacological Activity of the Essential Oil from the Peels of Citrus Aurantium Grown in Oman, 3rd Multidisciplinary Scientific Conference., Ibri, Oman, 16 September 2024

مضور المؤتمرات ـ

20th International Symposium on Atherosclerosis, Muscat, 4th to 6th of December - 2024

المنشورات ـ

- Antidepressant-like activity of methanolic extract of Rosa damascena in mice., 2024 .1 Jamaluddin Shaikh, Afaf Mohammed Weli, Sadri Abdullah Said. International Journal of Pharmacy .and Pharmaceutical Sciences. 16 (11): 44-49
- Pharmacological and Phytochemical Screening of the Essential Oil from peels of Citrus 2024 .2 limetta Risso. , Afaf Mohammed Weli, Khaled Ali Abdin, Mustafa Mazen Hamza, Jamaluddin Shaikh, Sadri Abdullah Said, Jamal Al-Sabahi, Ajmal Khan, Saeed Allah, Abdullah Mohammed Al-Hatmi, Najeeb Ur Rahman, Salem Said Al Touby, Ahmed Al-Harrasi. Acta Scientific Pharmaceutical .Sciences. 8(7): 72-80
  - Antidepressant-like activity of methanolic extract of Withania qaraitica in mice., Reem 2023 .3 Khalfan Almaqbali , Jamaluddin Shaikh, Afaf Mohammed Weli , Sadri Abdullah Said. 2023. .International Journal of Pharmacy and Pharmaceutical Sciences. 15(2), 25-30
  - Prevalence of Substance Abuse among School Students in Muscat and Al-Mudhaibi in 2022 .4 Sultanate of Oman: A Comparative Study., Mahfudha Saif Said Al-Mahruqi, Jamaluddin Shaikh.

    .Madridge J.Nurs. 7, 194-199
- Evaluation of the solubility of 11-keto-beta-boswellic acid and its histological effect on the 2021 .5 diabetic mice liver using a novel technique. Issa Al Amri, Fazal Mabood, Isam T. Kadim, Abdulaziz Alkindi, A. Al-Harrasi, Sulaiman Al-Hashmi, Ghulam Abbas, Ahmed Hamaed, Basant Ahmed, Jawaher Al-Shuhaimi, Samera Khalaf, Jamaluddin Shaikh. Veterinary World. 14 (7), 1797-1803
- Prevalence of substance abuse among Omani population intwo Governorates in Sultanate 2021 .6 of Oman, Jokha Sulieman Al Ghafri, Senaida Said Al-Senaidi, Jamaluddin Shaikh. Madridge Journal of Nursing. 5, 167-172
  - Knowledge and perception of preventable medical errors in Sultanate of Oman., 2019 .7 Jamaluddin Shaikh, Habiba Al-Ruzaiki. Madridge J. Nurs. 4, 134-138
  - Prevalence of substance abuse among the school students in Al-Dhahirah Governorate, 2018 .8 Sultanate of Oman., Amna Al-Alawi, Jamaluddin Shaikh. Madridge J. Nurs. 3, 118-123
    - Sigma receptor ligand AC927 (1-(2-phenethyl)piperidine oxalate) attenuates 2011 .9 methamphetamine-induced hyperthermia and serotonin damage in mice., Michael Seminerio, Nidhi Kaushul, Jamaluddin Shaikh, Andrew Coop, and Rae R. Matsumoto. Pharmacol. Biochem. .Behav. 98, 12-20
  - CM 156, a high affinity sigma ligand, attenuates the stimulant and toxic effects of 2011 .10 methamphetamine in mice.. Nidhi Kaushal, Michael Seminerio, Jamaluddin Shaikh, Mark Medina, Christophe Mesangeau, Lisa L Wilson, Christopher McCurdy, and Rae Matsumoto.

    .Neuropharmacology 61, 992-1000
- A novel substituted piperazine, 3-(4-(4-cyclohexylpiperazin-1-yl)butyl)benzo[d] 2010 .11 thiazole-2(3H)-thione (CM156), attenuates the stimulant and toxic effects of cocaine in mice., Yan-Tong Xu, Nidhi Kaushal, Jamaluddin Shaikh, Lisa L. Wilson, Christophe Mésangeau, Christopher R. .McCurdy and Rae R. Matsumoto. J. Pharmacol. Exp. Ther. 333, 491-500
- Attenuation of methamphetamine-induced effects through the antagonism of sigma 2008 .12 receptors: evidence from in vivo and in vitro studies., Rae R. Matsumoto, Jamaluddin Shaikh, Lisa .L. Wilson, Jiajia Wang and Andrew Coop. Eur. Neuropsychopharmacol. 18, 871-881
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- Conversion of a highly selective sigma-1 receptor-ligand to sigma-2 receptor preferring 2008 .14 ligands with anticocaine activity., Christophe Mesangeau, Sanju Narayanan, Andrea Green, Jamaluddin Shaikh, Nidhi Kaushal, Eddy Viard, Yan-Tong Xu, James Fishback, J. Poupaert, Rae

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- Identification of antidepressant drug leads through the evaluation of marine natural 2008 .15 products with neuropsychiatric pharmacophores., Jeffrey A. Diers, Kelly D. Ivey, Abir El-Alfy, Jamaluddin Shaikh, Jiajia Wang, Anna J. Kochanowska, John F. Stoker, Mark T. Hamann and Rae R. .Matsumoto. Pharmacol. Biochem. Behav. 89, 46-53
  - Nitrile analogs of meperidine as high affinity and selective sigma-1 receptor ligands., 2008 .16 Susan L. Mercer, Jamaluddin Shaikh, J. R. Traynor, Rae R. Matsumoto, and Andrew Coop. Eur. J. .Med Chem. 43, 1304-1308
- Interactive effects of paraoxon and pyridostigmine on blood-brain barrier integrity and 2004 .17 cholinergic toxicity., Xun Song, Carey Pope, Ramesh Murthy, Jamaluddin Shaikh, Bachchu Lal and .Joseph P. Bressler. Toxicol. Sci. 78, 241-247
  - Effects of daily stress or repeated paraoxon exposures on subacute pyridostigmine 2003 .18 toxicity in rats., Jamaluddin Shaikh, Subramanya Karanth, Dibyendu Chakraborty, Steve Pruett .and Carey N Pope. Arch. Toxicol. 77, 576-583
  - Combined forced running stress and subclinical paraxon exposure have little effect on 2003 .19 pyridostigmine-induced acute toxicity in rats., Jamaluddin Shaikh and Carey N Pope. Toxicology .190. 221-230
- Brain regional gamma-aminobutyric acid (GABA) and locomotor activity: Effect of long- 2003 .20 .term aldrin exposure., Sk. Jamaluddin and M. K. Poddar. Pol. J. Pharmacol. 55, 371-382
  - Aldrin-induced stimulation of locomotor activity and brain regional glutamate., Sk. 2001 .21 .Jamaluddin and M. K. Poddar. Meth. Find. Exp. Clin. Pharmacol. 23, 183-189
  - Aldrin-induced locomotor activity: Possible involvement of GABAergic-cholinergic- 2001 .22 .dopaminergic interaction., Sk. Jamaluddin and M. K. Poddar. Pol. J. Pharmacol. 53, 21-30
- Role of brain regional GABA: Aldrin-induced stimulation of locomotor activity in rat., Sk. 2001 .23 .Jamaluddin and M. K. Poddar. Neurochem. Res. 26, 439-451

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- Benzyl Benzoate., Jamaluddin Shaikh. In: Encyclopedia of Toxicology. Ed: Philip Wexler, 2005 .2 .2nd edn, Academic Press, pages 264-265
- Benomyl., Jamaluddin Shaikh. In: Encyclopedia of Toxicology. Ed: Philip Wexler, 2nd edn, 2005 .3 .Academic Press, pages 248-249
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#### الخبرة الإدارية

# العضوية في الهيئات المهنية

Society for Neuroscience: 2005-2010

American Society of Pharmacology and Experimental Therapeutics: 2004-2010

Society of Toxicology: 2003-2006

International Neurotoxicology Association: 2003-2010

### الجوائز والتقدير

Internal Research Grant UoN/27/IF/25 2025

(TRC Research Grant (BFP-RGP-HSS-20-092 2020

Principal Investigator in TRC RG project entitled `` Characterization of indigenous antidepressant plants growing in Oman`` (Project No. BFP/RGP/HSS/20/092) approved for implementation in November, 2020 .for two years

المرجع: https://www.unizwa.edu.om/staff/chs/jamaluddin