Dr. Ajeet Kaushik

Assistant Professor

Florida Polytechnic University

EMAIL: akaushik@floridapoly.edu

PHONE: 863-874-8745

Ph.D. in Chemistry, Jamia Millia University and National Physical University, India, 2011
M.S. in Chemistry, CCS University Meerut, India, 2002
B.S. in Physics, Chemistry, & Mathematics, CCS University Meerut, India, 2000

About

Presently, Dr. Kaushik, as an Assistant Professor of Chemistry, is exploring advanced electrochemical sensing systems and nanomedicine for personalized health wellness at Department of Natural Sciences of Division of Sciences, Art, & Mathematics at Florida Polytechnic University.

He is the recipient of various reputed awards for his service in the area of nano-biotechnology for health care. His excellent research credentials reflect by his four edited books, 100 international research peer reviewed publications, and three patents in the area of nanomedicine and smart biosensors for personalized health care. In the course of his research, Dr. Kaushik has been engaged in design and development of various electro-active nanostructures for electrochemical biosensor and nano-medicine for health care. His research interests include nano-bio-technology, analytical systems, design and develop nanostructures, nano-carries for drug delivery, nano-therapeutics for CNS diseases, on-demand site-specific release of therapeutic agents, exploring personalized nano-medicines, biosensors, point-of-care sensing devices, and related areas of health care monitoring.

Expertise

- Analytical Science and electrochemistry
- Nanotechnology for gas/bio sensor for point-of-care application
- Nanotechnology for nanomedicine and drug delivery systems
- Advanced systems for personalized health care.
- Numerical aspects for biomedical nanotechnology

Professional Activities

- Editorial Board Member: Nature Scientific Reports IMDPI-Sensor, MDPI-Biosensor I International Journal of Nanomedicine
- Associate Editor for Nanobiotechnology: Frontiers in Nanobiotechnology, Frontiers in Molecular Biosciences
- Guest Associate Editor for Neuropharmacology: Frontiers in Pharmacology, Frontiers in Neurology, Frontiers in Neuroscience

- Advisory Board Member: Sci-MDPI Journal
- Specialty Chief Editor: Biomedical Nanotechnology, featured in Frontiers in Nanotechnology
- Science Committee Member: Society for Brain Mapping and Therapeutics (SBMT)

Awards and Honors

1. Junior Research Investigator Award in Personalized Nanomedicine by Society for Personalized Nanomedicine-2017
2. Excellent Leadership Award by Nano-Florida Foundation, 2017
3. Young Investigator Award by Society for Brain Mapping and Therapeutics (SBMT)-2017.
4. Certificate of Excellence Research, by 21st Society of Neuroimmune Pharmacology (SNIP) 2016
5. Best research presentation award on Science Day held at National Physical Laboratory, India, 2009

Selected Publications

1. Kaushik, A., Yndart, A., Atluri, V., Tiwari, S., Tomitaka, A., Gupta, P., Jayant, R.D., Alvarez-Carbonell, D., Khalili, K. and Nair, M. (2019) Magnetically guided non-invasive CRISPR-Cas9/gRNA delivery across blood-brain barrier to eradicate latent HIV-1 infection. Scientific Reports,*9*(1), 3928.
2. Kaushik, A., Yndart, A., Kumar, S., Jayant, R.D., Vashist, A., Brown, A.N., Li, C.Z. and Nair, M. (2018). A sensitive electrochemical immunosensor for label-free detection of Zika-virus protein. Scientific Reports, 8(1), p.9700.
3. Kaushik, , Jayant, R. D., Bhardwaj, V., & Nair, M. (2018). Personalized nanomedicine for CNS diseases. Drug Discovery Today, 23(5), 1007-1015.
4. Kaushik, A., Nikkhah-Moshaie, R., Sinha, R., Bhardwaj, V., Atluri, V., Jayant, R.D., Yndart, A., Kateb, B., Pala, N. and Nair, M. (2017). Investigation of ac-magnetic field stimulated nanoelectroporation of magneto-electric nano-drug-carrier inside CNS cells. Scientific Reports, 7, 45663.
5. Kaushik, A., Vabbina, P.K., Atluri, V., Shah, P., Vashist, A., Jayant, R.D., Yandart, A. and Nair, M. (2016). Electrochemical monitoring-on-chip (E-MoC) of HIV-infection in presence of cocaine and therapeutics. Biosensors and Bioelectronics, 86, 426-431.
6. Kaushik, A., Yndart, A., Jayant, R. D., Sagar, V., Atluri, V., Bhansali, S., & Nair, M. (2015). Electrochemical sensing method for point-of-care cortisol detection in human immunodeficiency virus-infected patients. International Journal of Nanomedicine, 10, 677.
7. Kaushik, A., Solanki, P.R., Ansari, A.A., Ahmad, S., & Malhotra, B.D. (2009). A nanostructured cerium oxide film-based immunosensor for mycotoxin detection. Nanotechnology, 20(5), 055105.

8. Kaushik, A., Khan, R., Solanki, P. R., Pandey, P., Alam, J., Ahmad, S., & Malhotra, B. D. (2008). Iron oxide nanoparticles–chitosan composite based glucose biosensor. Biosensors and Bioelectronics, 24(4), 676-683.
9. R. Solanki, Ajeet Kaushik, V. Varun, B.D. Malhotra, *Solanki, P. R., Kaushik, A., Agrawal, V. V., & Malhotra, B. D. (2011). Nanostructured metal oxide-based biosensors.* NPG Asia Materials, *3(1), 17-24.*
10. Kaushik, A., Kumar, R., Arya, S. K., Nair, M., Malhotra, B. D., & Bhansali, S. (2015). Organic–inorganic hybrid nanocomposite-based gas sensors for environmental monitoring. Chemical Reviews, 115(11), 4571-4606.

More information at: https://floridapoly.edu/directory/faculty/ajeet-kaushik.php