

Dr. Satya Kumar Avula

Senior Scientist

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Time at UoN: Since 2015

Marital Status: Married...

Dr. Satya Kumar Avula was born in Kodangal town, Vikarabad Dist., Telangana State (Hyderabad), India on 9th November. He obtained his Master's degree in Inorganic Chemistry (2004) from Osmania University, Hyderabad. He worked as an Assistant Professor (on a contract basis) in the Chemistry department, Osmania University Post Graduate College (OUPGC) from 2004 to 2007. He has also qualified national level competitive tests Council of Scientific and Industrial Research (CSIR, New Delhi)-NET exam in 2006 and also he secured 96 percentile in GATE examination, which are reputed research-oriented exams in India. Then he moved to Indian Institute of Chemical Technology (IICT, CSIR Lab), Hyderabad to pursue his Ph.D degree (2007). He received his Ph.D. degree in Organic Chemistry from Jawaharlal Nehru Technological University Hyderabad (JNTUH-IICT), India in 2012. In his doctoral work he studied investigation on bioactive compounds through the stereo selective total synthesis of Stagonolide-D molecule, development of new synthetic methodologies and isolation of natural products from Jatropha Multifida plant under the supervision of Dr. Biswanath Das, Scientist-G, IICT, and Hyderabad. Dr. S. Kumar successfully presented his research work in the form of oral talks and poster presentations at various national and international conferences. He then moved to the Department of Chemistry, Uppsala University, Sweden, as a Postdoctoral Fellow (2012–2013) in the group of Prof. Pher. G. Anderson. FRSC, (a student of K. B. Sharpless, Nobel Laureate in 2001 & 2022), where he worked on an effort towards the cyclization of 1,6-enynes and synthesis of

chiral N, P ligands and their applications in asymmetric catalysis. He worked as an Assistant Professor in the Department of Chemistry, Vasavi College of Engineering, Hyderabad, from 2013-2015. Then he moved to Natural & Medical Sciences Research Center (NMSRC), University of Nizwa, and Sultanate of Oman, in July 2015. Dr. S. Kumar, presently working as a “Senior Scientist” in Organic Chemistry at the Natural & Medical Sciences Research Center (NMSRC), University of Nizwa in Oman, since 2015 to till today. After completing his postdoctoral work, Dr Kumar began independent research at the NMSRC in 2015 and has since been an invited speaker at numerous national and international conferences. His research focuses on the chemical transformations of natural products and the total stereo-selective synthesis of marine natural products with activity against cancer, tuberculosis, malaria, diabetes, and inflammation, among others. Additionally, Dr. Kumar has authored and co-authored over 95 scientific articles/reviews/patents in peer-reviewed international journals. He has presented his research at various national and international conferences. He is a Member of the Royal Society of Chemistry & American Chemical Society. His supervising Master, Ph.D & Post-Doctoral Fellows in Organic/Bio-organic/Medicinal chemistry.

Academic Qualifications

- Ph.D, Indian Institute of Chemical Tchnology - JNTUH, Hyderabad, India, 2012
- MSc, Osmania University, Hyderabad, India, 2004
- BSc, Osmania University, Hyderabad, India, 1999

Teaching Activities

- M. Sc., , Worked as an Assistant Professor in Inorganic Chemistry, Osmania University Post Graduate College (Mirzapur PG center), Osmania University, Hyderabad, Telangana State, India. August 2004-2007, Aug-2004 to Aug-2007
- B. Tech., , Worked as an Assistant Professor in Department of Chemistry, Vasavi College of Engineering, Hyderabad, India. , June 2013-June 2015

Research Activities

- Research Interests

- Organic Synthesis

Natural Products

Total Synthesis

Medicinal Chemistry

Synthesis of bioactive molecules

Synthesis of 1H-1,2,3-Triazoles

- Conference Presentations

Synthesis of Incensole derivatives and their biological activity, “Interdisplinary International Conference On Current Trends In Applied Sciences” , School of Science & Agriculture, Loyola Academy, Secunderabad, Telangana State, India. , 03/09/2022

Total Synthesis of Stagonalide A and B, “Third GCC Marine & Biotechnology Conference” , Sultan Qaboos University, Muscat, Oman. , 09/12/2021

Synthesis bioactive compounds and their biological activities, “Frontiers in Science & Technology” , Mahatma Gandhi University, Nalgonda, Telangana State, India. , 06/09/2020

Synthessi novel AKBA derivatives , “Oman Pharmaceutical Conference” , National University of Science & Technology, Muscat, Oman. , 04/12/2019

“Incensfuran: isolation, X-ray crystal structure and absolute configuration by means of chiroptical studies and solid state”, “1st international Conference on Frankincense and Medicinal Plants” , Sultana Qaboos University, Muscat, Oman. , 01/10/2018

“An efficient procedure for the synthesis of substituted pyridines using KF. Al2O3”, “Role of Chemistry in Advanced Engineering Materials” , Vasavi College of Engineering, Hyderabad, Telangana State, India. , 26/07/2013

- Conference Attendance

“Multidisciplinary International Conference on Advances in Applied Sciences” , held at Departments of Physics & Chemistry, Vasavi College of Engineering, Osmania University, Hyderabad, India on 22-23 December 2023., 22/12/2023

“Writing and Publishing Papers- The 6Ps Workshop” , held at The Center for Human Resources Development, University of Nizwa, Oman on 29th November 2023., 29/11/2023

“7th International Conference on Pharmacy and Medicine” , held at DUBAI, United Arab of Emirates on 23-25 January 2023., 23/01/2023

“International e-Conference on Emerging Materials for Technological Applications” , held at Department of Physics, Vignan’s IIT, Visakhapatnam, India on 23-25 November 2022.,

23/11/2022

“Interdisplinary International Conference On Current Trends In Applied Sciences (IICCTAS-2022)” , held at School of Science and Agriculture, Loyola Academy, Secunderabad, India on 1-3 September 2022., 01/09/2022

“Chemical Advances for Sustainable Development CASD-2022” , held at Department of Chemistry, University College for Women, Hyderabad, India on 12-13 April 2022. , 12/04/2022

“National Science Day”, held at Department of Chemistry, SGT University, Delhi, India on 26th February 2022. , 26/02/2022

“GCC-Marine Biotechnology Conference” , held at Sultan Qaboos University, Muscat, Oman on 8-9 December 2021. , 08/12/2021

“Webinar on Computational Tools & Their Applications” , held at Wavefunction Inc., Irvine, California, USA on 29th August 2021. , 29/08/2021

“National Conference on Nucleic acid Science & Technology” , held at CSIR-Institute of Minerals and Materials Technology, Bhubaneshwar, India on 10-13 August, 2021. , 10/08/2021

“International e-Conference on Development in Chemical, Biological and Environmental Sciences (DCBES-2021)” , held at Department of Chemistry, jointly organized by GITAM School of Science, Hyderabad & GITAM Institute of Science, Visakhapatnam, India on 28-30 June 2021., 28/06/2021

“Applications of Molecular Modeling, Discovery & Development of Anti-viral Drugs”, held at Department of Chemistry, S.R.R. Govt. Arts & Science College, Karimnagar, Telangana State, India on 27th February 2021., 27/02/2021

“Advances in Science and Technology for Betterment of Health, Environment and Energy” , held at Department of Chemistry, GITAM School of Science, Bengaluru, India on 1st-3rd December 2020. , 01/12/2020

“Frontiers in Science & Technology”, held at Department of Chemistry & Pharmaceutical sciences, Mahatma Gandhi University, Nalgonda, Telangana, India on 5th-6th September 2020., 05/09/2020

“Role of Chemists in Discovery of Drug and Vaccine for COVID-19”, held at Department of Chemistry, University College of Science, Satavahana University, Karimnagar, Telangana State, India on 16th August 2020. , 16/08/2020

International webinar on “Polymers & Solid-State NMR Spectroscopy” , held at St. Mary’s College, Thrissur, India on Aug 10th, 2020., 10/08/2020

Two-day International level webinar on “Recent Innovations and Concepts in Chemical Science (RICCS-2020)” , held at Usha Rama College of Engineering and Technology, Qaboos University, Telaprolu, Andhra Pradesh, India on Aug 7th & 8th, 2020. , 07/08/2020

International webinar on “Real World Applications of Nanomaterials” , held at University College of Science, Osmania University, Hyderabad, India on Aug 4th & 5th, 2020., 04/08/2020

International webinar on “Recent Advances in Organic Synthesis & Clinical Trial Process for Drug Approval” , held at University College of Science, Osmania University, Hyderabad, India on Aug 3rd, 2020., 03/08/2020

One day National Webinar on “Role of Chemist in COVID-19 Pandemic: An Interactive Session with the Distinguished alumni of Chemistry” , held at University College of Science, Osmania University, Hyderabad, India on Aug 1st, 2020., 01/08/2020

International webinar on “Pivotal role of Chemistry/Chemical Engineering in Present Scenario-2020”, held at VNRVJIET, Hyderabad, India on July 20th-22nd, 2020., 20/07/2020

National webinar on “COVID-19: A View on Vaccine Production” , held at GITAM University, Bengaluru, India on June 23rd, 2020., 23/06/2020

Two-day National webinar on “TECHNO SCIENCE-2020” , held at Loyola Academy, Secunderabad, India on May 27th & 28th, 2020., 27/05/2020

Poster presentation in “Oman Pharmaceutical Conference-2019” , held at National University Science & Technology, Muscat, Oman on December 3rd & 4th, 2019. , 03/12/2019

Poster presentation in “1st International conference on Frankincense and Medicinal Plants”, held at Sultan Qaboos University, Muscat, Sultanate of Oman on Oct 30th-Nov 1st, 2018. , 30/11/2018

“Sustainable Chemistry for Health, Environment and Materials (SuCHEM-2018)”, held at Indian Institute of Chemical Technology, Hyderabad, India on Aug 5th-8th, 2018., 05/08/2018

“Green and Sustainable Chemistry Conference” , held at Sultan Qaboos University, Muscat, Sultanate of Oman on Nov 13th-15th, 2017., 13/11/2017

Poster presentation in “Nano Science & Nano Technology” (NCNN), held at MGU, Nalgonda, Telangana, India on Feb 14th, 2014., 14/02/2014

Poster presentation in “A. P. Science Congress” , held at HCU, Hyderabad, Telangana, India on Nov 14th-16th, 2013., 14/11/2013

Selected as the Best Oral Presentation at “Role of Chemistry in Advanced Engineering

Materials" (RCAEM) , held at Vasavi College of Engineering, Hyderabad, India on July 26th-27th, 2013., 26/07/2013

"National seminar on "Recent Advances in Heterocyclic Chemistry" (RAHC) , held at JNTUH, Hyderabad, Telangana, India on Nov 4th-5th, 2011., 04/11/2011

"MEDCHEM Congress" , held at IICT, Hyderabad, Telangana, India on Feb 25th-26th, 2011., 25/02/2011

2nd Science conclave: "A Congregation of Noble Laureates", held at Indian Institute of Information Technology (IITA), Allahabad, India on Dec 08th-14th, 2009., 08/12/2009

CIMAP golden jubilee "National Symposium on future trends in medicinal & aromatic plants technologies and strategies" , held at IICT, Hyderabad, Telangana, India on Nov 17th, 2009., 17/11/2009

"ISCBC", held at DU, New Delhi, India on Feb 26th-28th, Mar 1st, 2009., 26/02/2009

Poster presentation in "National Conference on Recent Advances in Chemical Research" , held at Osmania University, Hyderabad, Telangana, India on Feb 6th-7th, 2009., 06/02/2009

Poster presentation at "ASOPMS XIII", held at IICT, Hyderabad, Telangana, India, Nov 3rd-6th, 2008. , 03/11/2008

- Publications

Article:

1. 2025 "Pentacyclic Triterpenoids from Frankincense and Boswellia: A Focus on their 13C-NMR Assignments" , Najeeb Ur Rehman, Kashif Rafiq, Satya Kumar Avula, Simon Gibbons, Ahmed Al-Harrasi. Phytochemistry., 2025, 229, 114297. (IF = 3.40).

2. 2025 "Dihydrofolate reductase inhibitory potential of 1H-indole-based-meldrum linked 1H-1,2,3-triazoles as new anticancer derivatives: In-vitro and In-silico studies" , Satya Kumar Avula, Saeed Ullah, Amirhossein Ebrahimi, Ali Rostami, Sobia Ahsan Halim, Ajmal Khan, Muhammad U. Anwar, Simon Gibbons, René Csuk and Ahmed Al-Harrasi. Eur. J. Med. Chem., 2025, 283, 117174. (IF = 5.90).

3. 2025 "Recent advances on artificial intelligence-based approaches for food adulteration and fraud detection in the food industry: Challenges and opportunities" , Puja Das, Ammar B. Altemimi, Pinku Chandra Nath, Mehak Katyal, Radha Krishnan Kesavan, Sarvesh Rustagi, Jibanjyoti Panda, Satya Kumar Avula, Prakash Kumar Nayak, Yugal Kishore Mohanta. Food Chemistry., 2025, 468, 142439. (IF = 9.80).

4. 2025 "Synthesis, in-vitro evaluation and in-silico analysis of new anticholinesterase

inhibitors based on sulfinylbis(acylhydrazones) scaffolds" , Muhammad Ibrahim, Mumtaz Ali, Sobia Ahsan Halim, Sajid Ali, Abdul Latif, Manzoor Ahmad, Muhammad Zubair, Satya Kumar Avula, Magda H. Abdellattif, Ajmal Khan, Ahmed Al-Harrasi. J. Mol Str., 2025, 1334, 141796. (IF = 4.70).

5. 2025 "Design and synthesis of terephthalic dihydrazide analogues as dual inhibitors of glycation and urease" , Hazart Bilal, Saeed Ullah, Sobia Ahsan Halim, Momin Khan, Satya Kumar Avula, Aftab Alam, Eman Serry Zayed, Sabah H. El-Ghaiesh, Hanan A. Ogaly, Zarbad Shah, Ajmal Khan and Ahmed Al-Harrasi. RSC Advances., 2025, 15, 9510-9520. (IF = 4.60).

6. 2025 "Semisynthesis of Novel Alicyclic Triterpene-Triazole Derivatives from Boswellia sacra Gum Resin: Potential Anti-breast Cancer and Immunomodulatory Effects on T-Cell Activation", Najeeb Ur Rehman, Hassan Moghtaderi, Saeed Mohammadi, Sadiq Noor Khan, Sobia Ahsan Halim, Muhammad U. Anwar, Shaikh Mizanoor Rahman, Simon Gibbons, René Csuk, Satya Kumar Avula and Ahmed Al-Harrasi. ACS Omega., 2025, 10 (21), 21715–21730. (IF = 4.20).

7. 2025 "Macro-fungi mediated nanoparticles for sustainable agriculture: recent advancement and future strategies" , Jibanjyoti Panda, Amilia Nongbet, Satya Kumar Avula, Debases Nayak, Sarvesh Rustagi, Bibhu Prasad Panda and Yugal Kishore Mohanta. Springer Nature's Discover Sustainability., 2025, 6, 375. (IF = 3.00).

8. 2025 "Exploring Edible Insects as a Potential Source of Food-Nutraceuticals: A Sustainable Approach" , Vivono Rhetso, Awdhesh Kumar Mishra, Pinku Chandra Nath, Jibanjyoti Panda, Debasis Nayak, Bibhu Prasad Panda, Sarvesh Rustagi, Satya Kumar Avula, Seydur Rahman, and Yugal Kishore Mohanta. Springer Nature's Food Biophysics., 2025, 20:93. (IF = 3.20).

9. 2025 "Exploring the mechanisms of epithelial-mesenchymal transition (EMT) in breast cancer: The role of MicroRNA and the therapeutic promise of bioactive compounds from edible plants" , Ahmad Zeb, Hazera Binte Sufian, Hasan Moghtaderi, Walizeb Khan, Faizullah Khan, Marvin M. Shaikh, Satya Kumar Avula, Issa Sulaiman Al Amri, Ajmal Khan, Haroon Khan, Mahua Choudhury, Ahmed Al-Harrasi and Shaikh Mizanoor Rahman. J. Mol. Str., 2025, 1346, 5, 143197. (IF = 4.70).

10. 2025 "Synthesis of Novel Fluoro Substituted Urea-Linked 1H-1,2,3-Triazole Derivatives as Potential Tyrosinase Inhibitors: In-Vitro and In-Silico Approaches" , Sadiq Noor Khan, Atta Ullah, Hossein Yazdani, Sobia Ahsan Halim, Ajmal Khan, Muhammad U. Anwar, René Csuk, Satya Kumar Avula and Ahmed Al-Harrasi. J. Mol. Str., 2025, 1348, 2, 143574. (IF = 4.70).

11. 2024 "Efficient Microwave Synthesis of Flurbiprofen Derivatives and Their Enhancement of Efficacy in Chronic Inflammatory Pain Models and Gastro-protective Potential in Post-Operative Model", Nisar Zamin Shah, Ajmal Khan, Sobia Ahsan Halim, Satya Kumar Avula,

Nazar Ul Islam, Imran Khan, Nasiara Karim, Muhammad Kifayatullah, Asaad Khalid, Hassan A. Alhazmi, Ashraf N. Abdalla, Ahmed Al-Harrasi. J. Biomolecular. Str. and Dyn., 2024. (IF = 2.70).

12. 2024 "Efficient Microwave Synthesis of Flurbiprofen Derivatives and Their Enhancement of Efficacy in Chronic Inflammatory Pain Models and Gastro-protective Potential in Post-Operative Model" , Nisar Zamin Shah, Ajmal Khan, Sobia Ahsan Halim, Satya Kumar Avula, Nazar Ul Islam, Imran Khan, Nasiara Karim, Muhammad Kifayatullah, Asaad Khalid, Hassan A. Alhazmi, Ashraf N. Abdalla, Ahmed Al-Harrasi. J. Biomolecular. Str. and Dyn., 2024. (IF = 2.70).

13. 2024 "Bacterial Proteins and Peptides as Potential Anticancer Agents: A Novel Search for Protein-based Therapeutics", Mahitha Pyal, Sanjana Kankipati, Sumithra. B, Piyush Kumar Mishra, Bishwambahar Mishra, Sanjeeb Kumar Mandal, Jibanjyoti Panda, Hotesh Chopra, Satya Kumar Avula, Mohammed S. Attia, Yugal Kishore Mohanta and Mohammad Amjad Kamal. Current Medicinal Chemistry., 2024. (IF = 3.50).

14. 2024 "Identification of new pharmacophore against SARS-CoV-2 spike protein by multi-fold computational and biochemical techniques" , Atta Ullah, Saeed Ullah, Sobia Ahsan Halim, Muhammad Waqas, Basharat Ali, Farid S. Ataya, Nasser M. El-Sabbagh, Gaber El-Saber Batiha, Satya Kumar Avula, René Csuk, Ajmal Khan, Ahmed Al-Harrasi. Nature's Scientific Reports., 2024, 14:3590. (IF = 3.90).

15. 2024 "Development and Synthesis of Novel Salen-type Ligand Based on Phenylalanine for Mizoroki-Heck, and S-Arylation Cross-Coupling Reactions", Azizollah Habibi, Ahmad Takallou, Elham Badali, Bahnood Salmani Nezhad, Satya Kumar Avula, Ahmed Al-Harrasi. Nat. Pro. Res., 2024. (IF = 2.20).

16. 2024 "New 1H-1,2,3-Triazole Analogues of Boswellic Acid are Potential Anti-Breast Cancer Agents" , Satya Kumar Avula, Najeeb Ur Rehman, Faizullah Khan, Tanveer Alam, Sobia Ahsan Halim, Ajmal Khan, Muhammad U. Anwar, Shaikh Mizanoor Rahman, Simon Gibbons, René Csuk and Ahmed Al-Harrasi. J. Mol. Str., 2024, 1319, 139447. (IF = 4.70).

17. 2024 "Amelioration of gold nanoparticles mediated through Ocimum oil extracts induces reactive oxygen species and mitochondrial instability against MCF-7 breast carcinoma" , Yugal Kishore Mohanta, Kunal Biswas, Awdhesh Mishra, Biswajit Patra, Bishwambhar Mishra, Jibanjyoti Panda, Satya Kumar Avula, Rajender Varma, Bibhu Panda, Debasis Nayak. RSC Advances., 2024, 14, 27816. (IF = 4.60).

18. 2024 "Synthesis of novel organophosphonate Schiff bases: A potential agents for post-cancer treatment and diabetics management" , Nasir Ud Din, Maryam Niaz, Saeed Ullah, Sobia Ahsan Halim, Satya Kumar Avula, Ajmal Khan, Farhan A. Khan, Kanwal Iftikhar, Shabana Usman Simjee, Fatima Iftikhar, Basit Niaz, Magda H. Abdellattif, Ahmed Al-Harrasi.

J. Mol. Str., 2024, 1322, 2, 140399. (IF = 4.70).

19. 2024 “Effects of 1H-1,2,3-Triazole Derivatives of 3-O-Acetyl-11-Keto-Beta-Boswellic Acid from Boswellia sacra Resin on T-Cell Proliferation and Activation” , Abdo Meyiah, Satya Kumar Avula, Ahmed Al-Harrasi, and Eyad Elkford. Pharmaceuticals., 2024, 17, 1650. (IF = 4.80).

20. 2024 “Our Work on Silica Supported Sodium Hydrogen Sulfate (NaHSO4.SiO2) Catalyzed Chemical Transformations”, Biswanath Das, N. Salva Reddy, Rathod Aravind Kumar, Satya Kumar Avula, Ratna Das. Current Organic Synthesis., 2024, (IF = 2.50).

21. 2023 “Biochemical and in-silico inhibition of bovine and human carbonic anhydrase-II by 1H-1,2,3-triazole analogues”, , Majid Khan, Satya Kumar Avula, Sobia Ahsan Halim, Muhammad Waqas, Mufarreh Asmari, Ajmal Khan, Ahmed Al-Harrasi. Frontiers in Chem., 2022, 10, 1072337. (IF = 4.20)

22. 2023 “Triazole-tethered boswellic acid derivatives against breast cancer: Synthesis, in vitro, and in-silico studies”, Satya Kumar Avula, Najeeb Ur Rehman, Faizullah Khan, Obaid Ullah, Sobia Ahsan Halim, Ajmal Khan, Muhammad U. Anwar, Shaikh Mizanoor Rahman, René Csuk, Ahmed Al-Harrasi. J. Mol. Str. 2023, 1282, 135181. (IF = 4.70)

23. 2023 “Discovery of New Boswellic acid Hybrid 1H-1,2,3-Triazoles for Diabetic Management: In-Vitro and In-Silico Studies” , Najeeb Ur Rehman, Saeed Ullah, Tanveer Alam, Sobia Ahsan Halim, Tapan Kumar Mohanta, Ajmal Khan, Muhammad U. Anwar, René Csuk, Satya Kumar Avula and Ahmed Al-Harrasi. Pharmaceuticals. 2023, 16 (2), 229. (IF = 4.80)

24. 2023 “Nanotechnology in combating biofilm: A smart and promising therapeutic strategy” , Yugal Kishore Mohanta, Ishani Chakrabarthy, Awdhesh Kumar Mishra, Hitesh Chopra, Saurov Mahanta, Satya Kumar Avula, Kaustuvmani Patowary, Ramzan Ahmed, Bibhudutta Mishra, Tapan Kumar Mohanta, Muthupandian Saravanan, Nanaocha Sharma. Frontiers in Micro., 2023, 13, 1028086. (IF = 4.50)

25. 2023 “Bio-oriented synthesis of ibuprofen derivatives for enhancement efficacy in post-operative and chronic inflammatory pain models”, Nisar Zamin Shah, Satya Kumar Avula, Nasiara Karim, Nazar Ul Islam, Gaber El-Saber Batiha, Abdullatif Bin Muhsinah, Ajmal Khan, Ahmed Al-Harrasi. RSC Advances., 2023, 13, 12518-12528. (IF = 4.60)

26. 2023 “Our Contribution on Microwave-Assisted Conversions of Bioactive Compounds”, Biswanath Das, Nayaki Salva Reddy, Aravind Kumar Rathod, Satya Kumar Avula, Ratna Das. Curr. Micro. Chem., 2023, 10. (IF = 1.20)

27. 2023 “Nanotechnology as a Promising Tool Against Phytopathogens: A Futuristic Approach to Agriculture” , Manjit Kumar Ray, Awadhesh Kumar Mishra, Yugal Kishore

Mohanta, Saurov Mahanta, Ishani Chakrabartty, Neelam Amit Kungwani, Satya Kumar Avula, Jibanjyoti Panda, Ramesh Namdeo Pudake. Agriculture., 2023, 13, 1856. (IF = 3.60)

28. 2023 "Recent updates in nanotechnological advances for wound healing: A narrative review" , Hitesh Chopra, Yugal Kishore Mohanta, Saurov Mahanta, Tapan Kumar Mohanta, Inderbir Singh, Satya Kumar Avula, Sarada Prasanna Mallick, Ali A. Rabaan, Hajir Al-Saihati, Ahmed Al-Sayyah, Mohammed Al-Issa, Hussain R. Al-Turaifi, Bader Al-Alwan, Mohamed S. Attia, Sandip Chakraborty, Kuldeep Dhama. Nanotechnology Reviews., 2023, 12, 20230129. (IF = 6.10)

29. 2022 "Naturally Occurring O-heterocycles as Anticancer Agents", Satya Kumar Avula, Biswanath Das, Rene Csuk, Ahmed Al-Harrasi. Anti-Cancer Agents in Med. Chem., 2022, 22 (19), 3208. (IF = 3.00)

30. 2022 "Exploring the Bioactive Potentials of C60-AgNPs Nano-Composites against Malignancies and Microbial Infections", Kunal Biswas, Awdhesh Kumar Mishra, Pradipta Rajan Rauta, Abdullah G. Al-Sehemi, Mehboobali Pannipara, Avik Sett, Amra Bratovcic, Satya Kumar Avula, Tapan Kumar Mohanta, Muthupandian Saravanan, Yugal Kishore Mohanta. Int. J. Mol. Sci., 2022, 23, 714. (IF = 4.90)

31. 2022 "Microwave-Assisted: An efficient aqueous Suzuki-Miyaura cross-coupling reaction in the substituted 1H-1,2,3-triazoles", Satya Kumar Avula, Najeeb Ur Rehman, Rene Csuk, Biswanath Das and Ahmed Al-Harrasi. Curr. Micro. Chem., 2022, 9 (3), 1-9. (IF = 1.20)

32. 2022 "Effect of Edible Mushrooms on Lipids, Obesity, and BMI: Expedition of Novel Mycotherapeutics", Faheem Mustafa, Hitesh Chopra, Atif Amin Baig, Satya Kumar Avula, Sony Kumari, Tapan Kumar Mohanta, Muthupandian Saravanan, Awdhesh Kumar Mishra, Nanaocha Sharma, Yugal Kishore Mohanta. J. Fungi., 2022, 8, 211. (IF = 4.00)

33. 2022 "Exploring Dose-Dependent Cytotoxicity Profile of Gracilaria edulis-Mediated Green Synthesized Silver Nanoparticles against MDA-MB-231 Breast Carcinoma", Yugal Kishore Mohanta, Awdhesh Kumar Mishra, Debasis Nayak, Biswajit Patra, Amra Bratovcic, Satya Kumar Avula, Tapan Kumar Mohanta, Kadarkarai Murugan, Muthupandian Saravanan. Oxidative Med. Cel. Lon. (Hindawi)., 2022, 3863138. (IF = 7.31)

34. 2022 "Incensole derivatives from frankincense: Isolation, enhancement, synthetic modification, and a plausible mechanism of their anti-depression activity" , Najeeb Ur Rehman, Sulaiman Al-Shidhani, Nasiara Karim, Ajmal Khan, Imran Khan, Sobia Ahsan Halim, Sajid Khan Sadozai, Satya Kumar Avula, Rene Csuk, Ahmed Al-Harrasi. Bioorg. Chem., 2022, 105900. (IF = 4.70)

35. 2022 "A waste valorization strategy for the synthesis of phenols from (hetero) aryl boronic acids using pomegranate peel ash extract", Jangam Lakshmidevi, Bandameeda

Ramesh Naidu, Satya Kumar Avula, Anjoy Majhi, Poh Wai Chia, Ahmed Al-Harrasi and Katta Venkateswarlu. Green Chem. Letters Rev., 2022, 15 (2), 425-436. (IF = 6.60)

36. 2022 "Synthesis and antidepressant-like effects of new 5-epi-incensole and 5-epi-incensole acetate in chronic unpredictable mild stress model of depression; Behavioral and biochemical correlates", Satya Kumar Avula, Ajmal Khan, Najeeb Ur Rehman, Nasiara Karim, Imran khan, Rene Csuk, Biswanath Das, Ahmed Al-Harrasi. Biomed & Pharma., 2022. 156, 113960. (IF = 7.50)

37. 2022 "A Review on DBU Mediated Organic Transformations", Shashi Kanth Boddu, Najeeb Ur Rehman, Tapan Kumar Mohanta, Anjoy Majhi, Satya Kumar Avula, Ahmed Al-Harrasi. Green Chem. Letters Rev., 2022, 15 (3), 765-795. (IF = 6.60)

38. 2022 ``Virtual 2D map of Cyanobacterial Proteomes", , Tapan Kumar Mohanta, Yugal Kishore Mohanta, Satya Kumar Avula, Amilia Nongbet, Ahmed Al-Harrasi. PLoS ONE., 2022, 17(10), e0275148. (IF = 2.60)

39. 2021 "Total Synthesis of Surinamensinols A and B", Satya Kumar Avula, Biswanath Das, Rene Csuk, Ahmed Al-Rawahi, Ahmed Al-Harrasi. SynOpen., 2020, 4, 84-88. (IF = 2.00)

40. 2021 "Synthesis of new 1H-1,2,3-triazole analogues in aqueous medium via "Click" chemistry: A novel class of potential carbonic anhydrase-II inhibitors", Satya Kumar Avula, Majid Khan, Sobia Ahsan Halim, Ajmal Khan, Samia Ahmed Al-Riyami, Rene Csuk, Biswanath Das, Ahmed Al-Harrasi. Frontiers in Chemistry., 2021, 9, 642614. (IF = 4.20)

41. 2021 "Synthesis and Antimicrobial Activity of 1H-1,2,3-Triazole and Carboxylate Analogues of Metronidazole", Satya Kumar Avula, Syed Raza Shah, Khdija Al-Hosni, Muhammad U. Anwar, Rene Csuk, Biswanath Das and Ahmed Al-Harrasi. Beilstein. J. Org. Chem., 2021, 17, 2377-2384. (IF = 2.40)

42. 2021 "Synthesis, Characterization, and X-ray Crystal Structures of New Derivatives of Metronidazole", Satya Kumar Avula, Syed Raza Shah, Rene Csuk, Muhammad U. Anwar, Ahmed Al-Harrasi. Crystallography Reports. 2021. (IF = 0.90)

43. 2021 "Cembranoids from Boswellia Species", Ahmed Al-Harrasi, Satya Kumar Avula, Rene Csuk, Biswanath Das. Phytochemistry., 2021, 191, 112897. (IF = 3.40)

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Faculty Administrative Experience

2015 - Present: Senior Scientist - Organic Chemistry/Bio-oraganic/Medicinal Chemistry, Natural & Medical Sciences Research Center (NMSRC), University of Nizwa, Sultanate of Oman.

Area of work: Teaching and Research: Design and synthesis of new bioactive compounds and derivatives of natural products, ABA, AKBA, KBA and Incensole.

2011 - 2012: Post-Doctoral Fellow (PDF) - Department of Chemistry, Uppsala University, Sweden

Worked as a Post-Doctoral Fellow (2012–2013) in the group of Prof. Pher. G. Anderson. FRSC, (a student of K. B. Sharpless, Nobel Laureate in 2001 & 2022).Research area: “Synthesis of Chiral N, P ligands and their application in Asymmetric Catalysis”.

Membership in Professional Bodies

2020-Present: Member of The American Chemical Society (MACS), U.S.A.

2019-Present: Member of The Royal Society of Chemistry (MRSC), London, UK.

Award and Recognitions

2025 The National Research Award-2025 (12th Cycle/2025)-2nd Place”–Our paper entitled, ``Semisynthesis of Novel Alicyclic Triterpene-Triazole Derivatives from Boswellia sacra Gum Resin: Potential Anti-breast Cancer and Immunomodulatory Effects on T Cell Activation`` (ACS Omega., 10, 21, 21715–21730, 2025. (IF=4.20); https://doi.org/10.1021/acsomega.5c01259). The Annual Research Forum, from the Ministry of Higher Education (MoH), Majesty Sultan Haitham bin Tariq, 7th December 2025, Majan Hall, Al Bustan Palace Hotel, Muscat, Oman.

2025 The National Research Award-2025 (12th Cycle/2025)-3rd Place”–Our paper entitled, “Dihydrofolate reductase inhibitory potential of 1H-indole-based-meldrum linked 1H-1,2,3-triazoles as new anticancer derivatives: In-vitro and In-silico studies” (Eur. J. Med. Chem., 283, 117174, 2025. (IF = 6.10); https://doi.org/10.1016/j.ejmech.2024.117174). The Annual Research Forum, from the Ministry of Higher Education (MoH), Majesty Sultan Haitham bin

Tariq, 7th December 2025, Majan Hall, Al Bustan Palace Hotel, Muscat, Oman.

2024 Distinguished Researcher Award–2024”–University of Nizwa on Research Day Awards 25th December - 2024, from Ministry of higher Education (MoH), Majesty Sultan Haitham bin Tariq, University of Nizwa, Nizwa, Oman.

2022 “Lifetime Achievement Award–2022”–International Research Awards On Science and Technology 14th – 15th March 2022, Chennai, India.

2020 “Member of The American Chemical Society Award–2020”–(MACS-Award, Membership No: 33784490) 9th November 2020- till the date, The American Chemical Society, Washington, 1155 16th St NW, USA.

2019 “Member of The Royal Society of Chemistry Award–2019”–(MRSC-Award, Membership No: 683849) 23rd June 2019-till the date, The Royal Society of Chemistry, Cambridge, London, UK.

2012 “Post-Doctoral Fellowship-Award–2012”–from the University of Kwazulu-Natal (UKZN), Durban, South Africa-Uppsala University, Sweden, UK.

2009 “Senior Research Fellowship (SRF) Award – 2009” – from the Council for Scientific and Industrial Research (CSIR), New Delhi, India.

2007 “Junior Research Fellowship (JRF) Award – 2007” – from the Council for Scientific and Industrial Research (CSIR), New Delhi, India.

2006 “National Eligibility Test conducted by CSIR-UGC Award – 2006”, on behalf of the Ministry of Human Resources Development (MHRD), Government of India.