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# Area of Research

Phytochemistry, Animal Research model, Pharmacology, Nano-biotechnology.

#### Research Id's:

Google scholar id: <a href="https://scholar.google.com/citations?user=UjiXqaMAAAAJ">https://scholar.google.com/citations?user=UjiXqaMAAAAJ</a>

Orchid id: https://orcid.org/0000-0002-7334-4483

Web of Science Researcher ID: GOK-0846-2022

Scopus Author ID: 57211981187

### **Funded Project Details**

• As Principal investigator "Young scientist" in research project

Title: Evaluation of antiarthritic and ameliorative potential of Terrestrial and Marine Lichens.

Sanctioned amount: Rs. 40,75,000/- (US \$ 70,250) Funding Agency: SERB- DST, New Delhi.

Completed a project as Faculty mentor in a student project funded by TNSCST, entitled Preparation
of biocomposite bioflim using Portulaca Quadrifida as wound dressing material. TNSCST/SPS2022-23 dated 03-03-23- MS-0315

## **Patent details:**

#### Granted

- K. Syed Zameer Ahmed, S. Sidhra, A. Thangakumar, Ameliorative potential of *Parmotrema reticulatum* against Complete Freund's Adjuvant-induced arthritis in rats and isolation of novel secondary metabolites. Date of filing: 12/12/2018; Publication Date: 21/12/2018. Application No.201841046961 A. Grant No. 363466, Dated 09.03.2021
- K. Syed Zameer Ahmed, A. Thangakumar, S. Sidhra, S. Syed Tajudeen. Novel phenolic compounds from *Nerium indicum* with anti-breast cancer activity Date of filing: 27/12/2017; Publication Date: 05/01/2018. Application No.201741046767 A, Grant No. 420602, Dated 06.02.2023
- 3. K. Syed Zameer Ahmed, S. Sidhra, A. Thangakumar. Therapeutic effect of Parmotrema

*tinctorum* against complete freund's adjuvant-induced arthritis in rats and identification of novel isophthalic ester derivative. Date of filing: 23/08/2018; Application No. 201841031516 A. **Grant No. 428986, Dated 13.04.2023** 

## Patent filed and published- Indian

- K. Syed Zameer Ahmed, S. Sidhra, K.R. Abithaa, B. Naveen, Optimization of low-cost media from chicken feather waste for the growth of *Nostoc calcicola* for SPF rich sunscreen cream formulation. App. No. 202341052447, Dated 04.08.2023
- 2. **K. Syed Zameer Ahmed**, S. Sidhra, T. Divya, K.R. Abithaa, Improved formulation of anti-acne peel off mask with *Parmotrema reticulatum* loaded aspasomes. App. No. **202341052449**, Dated **04.08.2023**
- 3. **K. Syed Zameer Ahmed**, S. Sidhra, K.R. Abithaa, B. Naveen, S Sundarraj. Culture medium optimization using cow dung to enhance UV protection and sunscreen formulation from *Nostoc calcicola*. App. No. **202341052453**, Dated **04.08.2023**
- 4. **K. Syed Zameer Ahmed**, S. Sidhra, M. Lohashree, K.R. Abithaa, K Vishnubala, K. Meenakshi. Formulation of probioticated herbal drink for synergetic effect against anemia. App. No. **202341052463**, Dated **04.08.2023**
- K. Syed Zameer Ahmed, S. Sidhra, R. Manthra, K.R. Abithaa, M.K Nandhini. Synthesis of Dioxepine derivative impregnated gold nanoparticles against Lung cancer. App. No. 202341052467, Dated 04.08.2023
- K. Syed Zameer Ahmed, S. Sidhra, S. Dinisha, K.R. Abithaa, R. Rishitha. Preparation and development of biodegradable bilayer wound dressing material to enhance wound healing process. App. No. 202341052473, Dated 04.08.2023
- 7. **K. Syed Zameer Ahmed**, S. Sidhra, S.M. Moogambigai , Mr. R. Kishore, K.R. Abithaa, S. Syed Tajudeen Rapid isolation and purification of bioactive compounds in *Desmodesmus serratus* (photobiont) from *Heterodermia togashii*. App. No. **202341052474**, Dated **04.08.2023**
- 8. **K. Syed Zameer Ahmed**, S. Sidhra, A. Dhanush Kumar, K.R. Abithaa, S. Syed Tajudeen Sustainable preparation of waste to wealth as organic cost affordable bio composite for better crop yield. App. No. **202341052477**, Dated **04.08.2023**
- 9. **K. Syed Zameer Ahmed**, S. Sidhra, Kadam Pranav Dipak, K.R. Abithaa, S. Syed Tajudeen YBEM (Yam Beet Enrichment Media) formulation, optimization and growth enhancer for *Trichoderma harzianum*. App. No. **202341052478**, Dated **04.08.2023**.
- 10. K. Syed Zameer Ahmed, S. Sidhra, M. Mohamed Rafi, V Manimaran, K.R. Abithaa, S. Sundarraj

- Sustainable synthesis of magnetite nanoparticles using photobiont/ mycobiont from *Hypotrachyna exsecda* (Taylor) hale with its therapeutic effect. App. No. 202341052483, Dated 04.08.2023.
- 11. **K. Syed Zameer Ahmed**, S. Sidhra, M. Mohamed Rafi, S. Sundarraj, K.R. Abithaa, V. Sivabalan. Rapid formulation of Dioxepine derivative impregnated silver nanoparticles against Lung cancer. App. No. **202341052484**, Dated **04.08.2023**
- 12. **K. Syed Zameer Ahmed**, A. Thangakumar, S. Sidhra, S. Syed Tajudeen. Novel compound from *Leucas aspera L*. and its Anti Cancer activity. Date of filing: 27/12/2017; Publication Date: 05/01/2018. Application No.201741046766 A
- 13. **K. Syed Zameer Ahmed**, A. Thangakumar, S. Sidhra, S. Syed Tajudeen. Novel Phenolic Compounds from *Nerium indicum* with Anti Breast cancer activity. Date of filing: 27/12/2017; Publication Date: 05/01/2018. Application No.201741046767 A
- 14. K. Syed Zameer Ahmed, S. Sidhra, A. Thangakumar, Therapeutic effect of *Parmotrema tinctorum* against complete Freund's adjuvant-induced arthritis in rats and identification of novel Isophthalic ester derivative. Date of filing: 23/08/2018; Publication Date: 31/08/2018. Application No.201841031516 A

## Patent filed and published- International PCT

1. **K. Syed Zameer Ahmed**, A. Thangakumar, S. Sidhra, S. Syed Tajudeen. Novel compound from *Leucas aspera L*. and its Anti - Cancer activity. Date: 04/07/2019, Application No.PCT/IN2018/050876.

### Sequence deposited at GenBank- NCBI

- 1. **Sidhra,S**., Dhanush Kumar,A., Syed Zameer Ahmed, K. and Abithaa,K.R. Streptomyces sp.strain KSZ1530, July 2023. https://www.ncbi.nlm.nih.gov/nuccore/OR244425
- 2. Syed Zameer Ahmed K, **Sidhra S**, Dhanush Kumar, A. and Naveen, B, GenBank Ref. No. SUB13654812, Microbacterium atlanticum strain WY121, Production of cost effective organic manure, July 2023. https://www.ncbi.nlm.nih.gov/nuccore/OR244427
- Syed Zameer Ahmed K, Sidhra S, Kishore R, Moogambigai S M, Gayathri Menon G, GenBank Ref. No. SUB3905025 PHOTOBIONT1CS-MH203317, April 2018. https://www.ncbi.nlm.nih.gov/nuccore/1377569311
- Syed Zameer Ahmed K, Sidhra S, Kishore R, Moogambigai S M, Gayathri Menon G, GenBank Ref. No. SUB3905025 PHOTOBIONT2HE-MH203318, April 2018. https://www.ncbi.nlm.nih.gov/nuccore/1377569312
- Syed Zameer Ahmed K, Sidhra S, Kishore R, Moogambigai S M, Gayathri Menon G, GenBank Ref. No. SUB3905025 PHOTOBIONT3HT-MH203319, April 2018. https://www.ncbi.nlm.nih.gov/nuccore/1377569313

- 6. Syed Zameer Ahmed K, Kishore R, **Sidhra S**, Krishnaveni R, Karamchand R, GenBank Ref. No. SUB3903064 MYCOBIONT1CS-MH197141, April 2018. https://www.ncbi.nlm.nih.gov/nuccore/1377041345
- 7. Syed Zameer Ahmed K, Kishore R, **Sidhra S**, Krishnaveni R, Karamchand R, GenBank Ref. No. SUB3903064 MYCOBIONT2HE-MH197142, April 2018. https://www.ncbi.nlm.nih.gov/nuccore/1377041346
- 8. Syed Zameer Ahmed K, **Sidhra S**, Kishore R, Moogambigai S M, Gayathri Menon G, N Visali, GenBank Ref. No. SUB4330492-Endolichenic fungi- MH675494, July 2018. https://www.ncbi.nlm.nih.gov/nuccore/MH675494.
- 9. Syed Zameer Ahmed K, **Sidhra S**, Kishore R, Moogambigai S M, Gayathri Menon G, N Visali, GenBank Ref. No. SUB4330458- Endolichenic fungi-MH668964, July 2018. https://www.ncbi.nlm.nih.gov/nuccore/MH668964

## **Publication Details: Papers**

### **Published**

- Syed Zameer Ahmed K, Sidhra S, Mohamed Rafi M, Selva Barathi P, Shanmugasundaram O L, Kishore R, Daniel David. *In vitro* anti-inflammatory, anti-arthritic and anti-proliferative activity of green synthesized silver nanoparticles *Phoenix dactylifera* (Rothan dates). Brazilian Journal Pharmaceutical Science. 2022. 58; e18594 https://doi.org/10.1590/s2175-97902022e18594 Impact Factor- 1.321
- Syed Tajudeen Syed Ameen, Anbalagan Vilvanathan, Syed Zameer Ahmed Khader and Gayathri Mahalingam. Microwave-assisted Green Synthesis of β Diketone Hydrazone Derivatives and Evaluation of their Antioxidant and Antibacterial Activities. Current microwave chemistry 2020; 07(3), 1-7. Doi. 10.2174/2213335607999200917145217
- Sidhra Syed Zameer Ahmed, Naresh Balu, Syed Zameer Ahmed Khader, Mohamed Rafi Mahboob, Shanmugasundaram O Lakshmanan. Fabrication and evaluation of bamboo fabric coated with extracts of *Curcuma longa*, *Centella asiatica* and *Azadirachta indica* as a wound dressing material. Advances in Traditional Medicine 2020. 21, 83–95 https://doi.org/10.1007/s13596-020-00503-0 Impact Factor- 1.86
- 4. Thangakumar A, **Syed Zameer Ahmed K**, Sidhra S, Manimaran V, Syed Tajudeen S, Ibrahim Sheriff A K, Puniethaa P, Philip Robinson J, Dastageer M S. Radical scavenging and antiproliferative effect of novel phenolic derivatives isolated from *Nerium indicum* against human breast cancer cell line (MCF-7) an *Insilco* and *invitro* approach. Environmental Science and Pollution Research. **27**, 9038–9057 **2019**. DOI: 10.1007/s11356-019-07252-x. **Impact Factor- 5.109**

- Syed Zameer Ahmed K, Sidhra S, Gayathri Menon G, Mohamed Rafi M, Manimaran V, Manavalan S. *Rhynchosia rufescens* AgNPs enhance cytotoxicity by ROS-mediated apoptosis in MCF-7 cell lines. Environmental Science and Pollution Research. 27, 2155–2164 2019. https://doi.org/10.1007/s11356-019-06479-y. Impact Factor- 5.109
- 6. Sidhra S, Syed Zameer Ahmed K, Vanmathi M, Muniraj C, Venkatesan T, Karamchand R and Manimaran V. 2019. Antiobesity and antihyperlipidemic effect of *Ixora coccinea* on triton-X100 induced hyperlipidemia in rats- an approach to evaluate Asymmetrical Temperature Distribution Analysis Using Thermography. Chinese Herbal Medicines. 11(3), 326- 331. <a href="https://doi.org/10.1016/j.chmed.2019.05.006">https://doi.org/10.1016/j.chmed.2019.05.006</a> Impact Factor- 1.21
- 7. **Syed Zameer Ahmed K.** Sidhra S. Thangakumar A. Krishnaveni R. **2019**. Therapeutic effectof *Parmotrema tinctorum* against complete Freund's adjuvant-induced arthritis in rats and identification of novel Isophthalic ester derivative. Biomedicine & Pharmacotherapy. 112, 108646. <a href="https://doi.org/10.1016/j.biopha.2019.108646">https://doi.org/10.1016/j.biopha.2019.108646</a>. **Impact Factor- 7.419**
- 8. **Syed Zameer Ahmed K**, Sidhra S, Nithiya Priya BT, Krishnaveni R, Muniraj C, Venkatesan T, Kisore PV, Karamchand R, Rajadurai SR, Moogambigai S M. **2018**. *In vitro* radical scavenging activity and modulating effect of *Annona cherimola* on complications associated with diabetes in experimental diabetic rats An approach to evaluate Asymmetrical Temperature Distribution Analysis Using Thermography. Interventions in Obesity & Diabetes. 1(5); 1-7. doi: 10.31031/IOD.2018.01.000522. **Impact Factor- 3.165**
- O.L. Shanmugasundaram, K. Syed Zameer Ahmed, K. Sujatha, P. Ponnmurugan, Amit Srivastava, R. Ramesh, R. Sukumar, K. Elanithi. 2018. Fabrication and characterization of chicken feather keratin/ polysaccharides blended polymer coated nonwoven dressing materials for wound healing applications. Materials Science and Engineering- C, 92; 26–33. doi:10.1016/j.msec.2018.06.020.
   Impact Factor-7.328
- Syed Zameer Ahmed K, Sidhra Syed Zameer Ahmed, Kisore Perundurai Venkatesh, Kamaraj Chinnaperumal, Sanjeeva Nayaka. 2018. Larvicidal Potential of Selected Indigenous Lichens against Three Mosquito species- *Culex quinquefasciatus*, *Aedes aegypti* and *Anopheles stephensi*. Chinese Herbal Medicines. 10(2); 152-156. <a href="https://doi.org/10.1016/j.chmed.2018.03.002">https://doi.org/10.1016/j.chmed.2018.03.002</a> Impact Factor-1.21
- 11. **Syed Zameer Ahmed K**, Sidhra Syed Zameer Ahmed. Thangakumar Arunachalam, Sanjeeva Nayaka, Senthil Kumar Balasubramanian, Syed Tajudeen SyedAmeen, Ponmurugan Ponnusamy. **2018.** Radical scavenging potential, antiinflammatory and antiarthritic activity of isolated Isomer Methyl-γ-Orsellinate and Roccellatol from *Roccella Montagnei*. Bulletin of Faculty of Pharmacy, Cairo University, 56(1); 39-45. doi.org/10.1016/j.bfopcu.2018.02.001

- 12. **K. Syed Zameer Ahmed**, S. Sidhra, S. Jagadeeswari, M. Mohamed Rafi, R. Kishore. **2018**. A comparative study on larvicidal potential of selected medicinal plants over green synthesized silver Nano particles. Egyptian Journal of Basic and Applied Sciences. 5(1); 54-62. doi. 10.1016/j.ejbas.2018.01.002
- 13. Thangakumar A, **Syed Zameer Ahmed K**, Sidhra S, Syed Tajudeen S, Ibrahim Sheriff A, Dastageer MS, Senthil Kumar B. **2017**. *In vitro* anti-inflammatory, anti-arthritic activity of *Nerium indicum* and *Leucas aspera* a traditional folklore medicine. International Research Journal of Pharmacy. 8(11): 77-80.
- 14. Sidhra S, **Syed Zameer Ahmed K,** Krishnaveni Radhakrishnan, Anupriya Balaji, Senthil Kumar Balasubramanian, Kishore Ramesh Kumar. 2017. Modulatory effect of *Leucas aspera* on oxidative stress and glucose metabolism against diabetic complications in experimental rats. International Research Journal of Pharmacy. 8(8): 27-33. DOI: 10.7897/2230-8407.088140
- 15. **Syed Zameer Ahmed K**, Sidhra S, Senthil Kumar B, Thanga Kumar A, Geetha K, Mohamed Rafi M, Ponmurugan P, Kishore R. **2017.** Modulatory effect of dianthrone rich alcoholic flower extract of *Cassia auriculata*. L. on experimental diabetes. Integrative Medicine Research. 6, 131-140. https://doi.org/10.1016/j.imr.2017.01.007 **Impact 4.473**
- 16. Fahad Khalid Aldhafiri, Balakrishnan Santhanaraj, Gokulan Selvam, Khader Syed Zameer Ahmed, Ramasamy Subbaiya, Suriya Kumaresan, Ponnusamy Ponmurugan. 2017. Hepatoprotective Studies of Methanolic Leaf Extract of *Barringtonia acutangula* (L) against Carbon Tetrachloride Induced Liver Injury in Wistar Rats. Research Journal of Pharmacy and Technology, 10(1), 1-7. Impact Factor- 1.203
- 17. Kameshwaran Muralikrishnan, Sharath Asokan, P. R. Geetha Priya, K. Syed Zameer Ahmed, G. Ayyappadasan. 2017. Comparative evaluation of the local anesthetic activity of root extract of Anacyclus pyrethrum and its interaction at the site of injection in guinea pigs. *Anesthesia Essay and Research*, 11(2) 444-448.
- 18. **Khader Syed Zameer Ahmed,** Syed Zameer Ahmed Sidhra, Ponnusamy Ponmurugan and Balasubramanian Senthil Kumar. **2016.** Ameliorative potential of *Solanum trilobatum* on oxidative stress in alloxan induced diabetic rats. Pakistan Journal of Pharmaceutical Sciences. 29 (5): 1571-1578. **Impact Factor- 0.684**

### **Journal Reviewer**

- 1. Asian Pacific Journal of tropical medicine Elsevier
- 2. Pakistan Journal of pharmaceutical science
- 3. Journal of Pharmacy research

- 4. Environmental Science and Pollution Research Springer
- 5. Journal of Basic and Clinical Physiology and Pharmacology
- 6. Intervention in obesity & diabetes
- 7. Journal of Applied Pharmaceutical Science
- 8. Future Journal of Pharmaceutical Sciences
- 9. World Journal of Surgical Oncology
- 10. Journal of International Medical Research
- 11. Indian Journal of Pharmaceutical Education and Research
- 12. Journal of Institute of Scholars

## **Professional Membership**

- Permanent professional member of Institute of Scholars (InSc), Bangalore, India.
- Permanent member in IAENG International Association of Engineers.
- ➤ Life Member in Society for Biotechnologist (India)
- > Fellow Member in International society of Biotechnology

### **Educational Qualification:**

➤ **Ph.D - Biochemistry** – Zoology [Thiruvalluvar University]. [2012]

Project: Studies on antihyperglycemic and ameliorative Potential of Medicinal Plants in Alloxan induced diabetic rats - An approach to Phytochemical Characterization of *Cassia auriculata.L* 

➤ M.Phil - Biochemistry [Bharathidasan University] [2007].

Project: Analysis of Anticholesterol Activity of Selected Herbal Plants.

- ➤ M.Sc Biochemistry from [Adhiparasakthi College of Arts & Science, G.B.Nagar, Kalavai. University of Madras], [2004].
- ➤ **B.Sc Biochemistry** from [Adhiparasakthi College of Arts & Science, G.B.Nagar, Kalavai, University of Madras], [2002].

### Other Qualification:

- 1. Diploma in Medical Laboratory Technology **DMLT** [AIMLTA Board, New Delhi]
- 2. Diploma in Computer application **D.C.A** [TAICE]
- 3. Diploma in Pharmaceutical marketing **PGDPHM** [Pondicherry University]

### **Communication Address**

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