

SACHIDANAND SINGH, M.Tech., Ph.D. PostDoc (USA)

**Associate Professor, Department of Biotechnology (Bioinformatics),
NBA Accredited (2021-24)**

Vignan's Foundation for Science, Technology and Research,
(Deemed to be University) **NAAC A+**, Guntur, Andhra Pradesh, India

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Google Scholar: <https://scholar.google.com/citations?user=sZPqcd4AAAAAJ&hl=en&oi=ao>

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=36519895500>



| Experience / Research | Publications | Patent | Book | PhD Completed | Highest Impact Factor | Organized Conference /Workshop | Initiated new Programs | Fund Raised | Govt. Fund Projects | Invited Lectures | Attended conf./ Workshops /FDP |
|-----------------------|--------------|--------|----------------|---------------|-----------------------|--------------------------------|------------------------|-------------|---------------------|------------------|--------------------------------|
| 12 Years | 35 | 2 | 3 (Ongoing) | 2 | 5.8 | 9 | 3 | ~12 Lac | 23 Lac | 12 | 18 |

HIGHLIGHTS OF THE ACADEMIC AND ADMINISTRATIVE CAREER

1. Experience of NAAC for 3 Times as department and University Level.
2. NBA experience for ones.
3. 2020- Initiated Institute of Agriculture and Technology, in Shri Ramswaroop Memorial University
4. Open House Thesis defense - External PhD Examiner for Amity University (Lucknow campus) and Integral University Lucknow.
5. 2021- NAAC SSR Head and final submission (First Time) in Shri Ramswaroop Memorial University.
6. During Covid 19- Initiated Online Teaching and Training and took Shri Ramswaroop Memorial University to 7th Position in whole Uttar Pradesh for E content Development.

ADMINISTRATIVE RESPONSIBILITY

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|-------------------|---|
| 2021- Till | Associate Professor (Bioinformatics), Department of Biotechnology Vignan's Foundation for Science, Technology and Research, Guntur, Andhra Pradesh, India |
| 2020- 2021 | Coordinator E-Development Cell, Shri Ramswaroop Memorial University (SRMU), Barabanki, Uttar Pradesh, India. Task Accomplished: |

- Initiated Learning Management System in SRMU campus
- Promoted and Executed E-learning resources (Lectures/Labs)
- Establishment of NPTEL local chapter and ISRO-IISR programs

2019- 2019 **(O) Head, Institute of Agriculture Sciences and Technology,** Shri Ramswaroop Memorial University, Barabanki, Uttar Pradesh, India

Task Accomplished:

- Initiated a new department as Agricultural and Sciences and SRMU,
- Proposal of the Institute as per ICAR norms
- Promotion and execution of Institute of Agriculture and Sciences.

2018- 2021 **Head, Faculty of Biotechnology, Institute of Biosciences and Technology,** Shri Ramswaroop Memorial University, Barabanki, Uttar Pradesh, India.

Responsibility:

- Administrative responsibility from academics to research
- Board of Studies, Academic Council.
- Enhancement of labs and their execution
- NAAC and NBA related activity

Assistant Co-ordinator - Research and Consultancy, Shri Ramswaroop Memorial University, Barabanki, UP.

Work Executed:

- Different policy released related to research and projects.
- Presentations on promotions of research and project writing

2013-2017 **Online Courses Coordinator,** School of Biotechnology and Health Sciences.

Budget Coordinator, Department of Bioinformatics, Karunya University.

Lab In-charge (High performance Computing Lab), Department of Bioinformatics, Karunya University.

Certificate Course and Consultancy Coordinator at Department of Bioinformatics, Karunya University.

2011- 2017 **Member of admission committee** at Department of Bioinformatics, Karunya University.

2010- 2017 **B.Tech and M.Tech Course Curriculum Coordinator,** Department of Bioinformatics, Karunya University

RESEARCH EXPERIENCE

2018-2018 **Research Associate-2** (position # 00020842), College of Pharmacy, Ohio State University, Columbus, Ohio, USA- **Consultancy from India**

2017-2017 **Visiting Scholar** (Post-Doctoral Fellow), College of Pharmacy, Ohio State University, Columbus, Ohio, USA.

EDUCATION

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| 2011-2015 | Ph.D. (Bioinformatics): “Network Biology Approach for Identifying Significant Drug targets and Pathways for Rheumatoid Arthritis”, SERB Funded Project, Department of Science and Technology, Department of Bioinformatics, Karunya University, Coimbatore, India |
| 2008-2010 | Master of Technology (Bioinformatics): 1st Rank with 89.2 % (Gold Medalist), Karunya University, Coimbatore, India. |
| 2004-2008 | Bachelor of Technology (Biotechnology): Distinction with 81.01% Sardar Vallabh Bhai Patel University of Agriculture and Technology, Indian Council of Agriculture Research. |
| 2001 | Physics, Chemistry, Biology (PCB) Group- Kendriya Vidyalaya School, CBSE, Gorakhpur |
| 1999 | Higher Secondary School, CBSE- Kendriya Vidyalaya School, CBSE, Gorakhpur |

TEACHING AND RESEARCH EXPERIENCE

| | |
|-------------------|---|
| 2021- Till | Faculty, Department of Biotechnology, Vignan’s Foundation for Science, Technology and Research, (Deemed to be University) NAAC A, Guntur, Andhra Pradesh, India |
| 2018- 2021 | Faculty, Faculty of Biotechnology, Institute of Biosciences and Technology, Shri Ramswaroop Memorial University, Barabanki, Uttar Pradesh, India. |
| 2018- 2018 | Research Associate , College of Pharmacy, Ohio State University, Columbus, Ohio, USA. |
| 2017- 2017 | Visiting Scholar (Post-Doctoral Fellow) , College of Pharmacy, Ohio State University, Columbus, Ohio, USA. |
| 2013-2017 | Assistant Professor (Young Scientist- SERB, Government of India) , Department of Bioinformatics, School of Biotechnology and Health Sciences, Karunya University, Coimbatore, Tamil Nadu, India. |
| 2010-2013 | Lecturer , Department of Bioinformatics, School of Biotechnology and Health Sciences, Karunya University, Coimbatore, Tamil Nadu, India. |
| 2009-2009 | Teaching Assistant , Department of Bioinformatics, School of Biotechnology and Health Sciences, Karunya University, Coimbatore, Tamil Nadu, India. |

GRANTS AND FELLOWSHIP

- 1. Young Scientist Fellowship and Research grant by Science Engineering and Research Board – Department of Science and Technology, Government of India for the Project titled - “A novel approach for the identification of key regulatory molecules and their pathways for Rheumatoid Arthritis”, 2013- 2016, worth Rs 21,65,000 (2.165 million Rupees) (SERB/LS-966/2012)**
- 2. Short term research grant** obtained as seed money from Karunya University for the project entitled “Anti-inflammatory Database”, **Rs. 40,000.**
- 3. Student project proposal** by Karunya University for the project entitled “To identify the

efficacy of the plant extract of *Alpinia galangal* as anti-inflammatory and anti-arthritis", 2012-2013, worth **Rs.10, 000**.

PATENTS

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| Identification of anti-Covid 19 agent Somniferine as an inhibitor of Mpro & ACE2-RBD | Filled: Patent-Australian Innovation Patent Patent Application Number: 2021104451 |
| Identification of Withaferin A as an Inhibitor of RHO-Associated Kinase-2 Catalytic Domain: Potential to be Developed as Neurotherapeutic Agent for Ischemic Stroke | Filled: Australian Innovation Patent Application Number: 2021105021 |

AWARDS

1. Outstanding performance in high quality research, 15th Sept, 2021, Vignan's Foundation for Science, Technology and Research, 2021
2. Innovative Scientist award, Asian Biological Research Foundation Prayagraj (India), 2020.
3. Best Researcher award for contribution towards research and academics 2019, Shri Ramswaroop memorial University, Barabanki, UP.
4. Best Fellow Awards in Agri-informatics, Nepal, 2019
5. Special Award for contribution towards research and academics 2018, Shri Ramswaroop Memorial University, Barabanki, Uttar Pradesh.
6. EMC Academic Associate, Data Science and Big Data Analytics, EMC Education Services, 22 July 2016
7. Young Scientist award for the year 2014, by honorable, Ganta Srinivasa Rao, Education Minister, Government of Andhra Pradesh.
8. Qualified the State Level Lecturer Eligibility Test for Lectureship conducted by Government of Tamil Nadu, 2013.
9. Best Researcher Award for the year 2013, by Karunya University, Coimbatore, India.
10. Best Teacher Award for the year 2012, by Karunya University, Coimbatore, India.

TECHNICAL EXPERTISE

1. **Plant Biotechnology**
2. **Genome Wide Association Studies-** Post Doc experience
3. **Software Expertise:** GeneSpring GX12.0, Schrodinger- Drug Design, Discovery Studio, Modeller, Molegro virtual Docker, Biointerpreter, dChip.
4. **Big Data Analysis:** Next generation sequencing data analysis and management
5. **Expression Data Analysis:** Microarray data analysis
6. **Molecular modeling and Drug Design:** Protein structure prediction- Homology Modelling

and threading, drug design and protein dynamics.

7. **Network Biology:** Protein- Protein interaction, Drug-target interaction, and Amino acid-amino acid interaction for active site identification.

INVITED LECTURES

1. Invited lecture on **“Developing Audio-Video Lectures as a Learning Resource”**, for Faculty Development Program, program organized by Shri Ramswaroop Memorial University, Barabanki, on **18 June 2020**.
2. Bansal Institute of Engineering and Technology Lucknow is organizing an **“International Conference on Modern Approaches in Engineering, Science and Management (MAESM-2021)”** during April 16-17, 2021. As a session chair for the conference.
3. Invited lecture on **“Identification of novel targets and their associated pathways Implying next generation sequence data analysis”**, for International Online Conference, The Theme for the E-Conference is **“Novel Biotechnological Approach to sustain natural resources in a pandemic scenario”**. program organized by SNMV College, Coimbatore, Tamil Nadu, on **19 May 2020**.
4. Invited lecture on **“Identification of novel targets and their associated pathways for Rheumatoid Arthritis by Implying next generation sequence data analysis”**, for Online Alumni Lecture Series, program organized by Karunya University, Coimbatore, Tamil Nadu, on **9 May 2020**.
5. Invited lecture on **“Network Biology Approach for Identifying Novel Targets and Pathways for Rheumatoid Arthritis”**, the International conference on **“Biotechnology and Applied Microbiology”**, which is going to be organized by Department of Biotechnology, Faculty of Life Sciences, Institute of Applied Medicines and Research, Ghaziabad, INDIA from **07-08 February, 2020**.
6. Invited lecture on **“Urban farming: Green and Clean Energy”**, for a Mission Hariyali 2k19, program organized by Shri Ramswaroop Memorial University, on **23 September 2019**
7. Invited lecture on **“Wildlife protection laws in India”**, for a value-added course on Wildlife protection laws in India on **April 28, 2019**.
8. Invited lecture on **“Agroforestry”**, for a value-added course on Sustainable Agriculture on **September 19, 2019**.
9. Invited lecture on **“Computational Approaches for ADME Identification”** In a DBT sponsored national seminar on **“Machine Learning in Bioinformatics”** conducted by M. Kuraswamy College of Engineering, Karur, on **9.12.2016 and 10.12.2016**

10. Invited lecture on “**Computational Approaches for ADME Identification**” In a DBT sponsored national conference on conducted by Dr. N.G.P. Arts and Science College, Coimbatore, **06-10-2016**.
11. Hands on training on “**Metabolomics approach for identification of key regulatory enzymes and metabolites**” in a DBT Sponsored Workshop on Fermentation and Bioseparation methods in **Pondicherry University**, 8-01-2015.
12. Hands on training on “**Network based studies for high throughput data analysis**” in DBT sponsored workshop on Data mining in Bioinformatics - Engineers Contribution for Health Care and Drug Design, **Anna University, Coimbatore** on 19-12-15.
13. Talk on “**Computational Approaches for ADME Identification**” In a national conference cum workshop – Cheminformatics and In-silico Drug Design conducted by **T.K.I.E.T, Waranagar**, Maharashtra, 2012.
14. Talk on “**Knowledge Based System Application for DNA Computing**” in a Department of Biotechnology, Government of India sponsored Seminar – “Research Issues in DNA Computing Technology” in **Kongu Engineering College**, Erode, Tamil Nadu, on 27.07.2011- 28.07.2011.

STUDENT THESIS/PROJECT - GUIDANCE/COMPLETED/ONGOING

1. **Student Projects Completed:** M.Tech- 8, B.Tech-40, PhD- 2 (Awarded), 3 (Ongoing).
2. Apart from this, one **project assistant** is working under my guidance since 2013, in the SERB project funded by Government of India.
3. July- September 2016 trained two **international students** in expression data analysis through IAESTE Student fellowship Max Juriaan Beauchez, Ghent University, Belgium and Jack Lawless Trinity College, Dublin, Ireland.

NEW INITIATIVES

1. Establishment of **Bioinformatics Computing Facility** at Faculty of Biotechnology, Shri Ramswaroop Memorial University, Barabanki.
2. Establishment of **High-Performance Computing Facility** at School of Biotechnology and Health Sciences, Karunya University.
3. Establishment of **Molecular Dynamics Facility** at Department of Bioinformatics, Karunya University.

WORKSHOP/CONFERENCE/ CERIFICATE COURSES ORGANISED

(Funds: Rs. 11,0,000)

1. **Co-Chairman**, Two day DST Sponsored, Bee Farming and Biofertilizer Entrepreneurship Awareness Camp: An Initiative to Serve Indian Farmers by Young Entrepreneurs on 18th-20th October, 2019., Venue: Shri Ramswaroop Memorial University, Barabanki **(Rs.1,24,000)**.
2. **Organizing Committee Chair**, National Conference on Biotechnology Innovation: Interdisciplinary Approach to Agriculture, Food, Health, Environment and Sustainable Development (NatConBio-2019)” in association with Society for Biotechnologists (India) during September 27-28, 2019, Venue: Shri Ramswaroop Memorial University, Barabanki.
3. **Convener**, one day DBT funded National **Popular Lecture series on Biotechnology**, Venue: Shri Ramswaroop Memorial University on 19th January 2019, Barabanki **(Fund Generated: Rs. 65,000)**..
4. **Convener**, one day National Seminar on “**Beefarming: Sustainable Development of Agriculture and Small-Scale Industry Celebration Honey Bee Day**” on 21st May 2018, in Collaboration With Royal Honey and Bee farming Society, Barabanki, funded by Khadi and Village Industry Commission, Barabanki **(Fund Generated: Rs. 90,000)**. .
5. **Co-Convener**, Two days national symposium on “**Recent Trends in Biotechnology: Technology to skill development** on 23-03-18 –24-03-18, 2018, Shri Ramswaroop Memorial University, Barabanki, UP, India **(Fund Generated: Rs. 30,000)**.
6. **Organizer**, Two days workshop on “**Disease Gene Identification Using Microarray Data Analysis**” on 11-02-16 – 12-02-16 **(Fund Generated: Rs. 6000)**.
7. **Convener**, Two days National Conference on “**Biological Complexity**” funded by Department of Science and Technology, Government of India on 11-12-13 – 12-12-13 **(Funds: Rs. 80,000)**.
8. **Co-Convener**, Two days National Conference on “**High Throughput Technologies in Bioinformatics**” funded by Department of Biotechnology and Council of Scientific and Industrial Research, Government of India on 23-08-12 - 24-08-12 **(Funds: Rs. 100,000)**.

9. **Organizing Secretary**, Three days National workshop on “**Application of Artificial Intelligence in Bioinformatics**” funded by Council of Scientific and Industrial Research, Government of India on 30.11.2011 – 2.12.2011 (**Funds: Rs. 100,000**).
10. **Organizing Member**, Two days International Conference on “**Human Infectious Disease and Immunity**” funded by Department of Biotechnology and Council of Scientific and Industrial Research, Government of India on 14.10.2011 & 15.10.2011 (**Funds: Rs. 200,000**).
11. **Organizing Member**, Three days National workshop on “**Molecular Simulation & Cheminformatics approaches towards New Drug Development**” (MSCNDD’11) funded by Department of Biotechnology and Council of Scientific and Industrial Research, Government of India on 24.02.2011 to 26.02.2011 (**Funds: Rs. 250,000**).
12. **Course Instructor**, Certificate course on “**Protein Modeling and Drug Design**” from 10-02-13 to 10-03-13 (**Funds: Rs. 30,000**).
13. **Course Instructor**, Certificate course on “**Protein Structure Prediction and Validation**” from 10-07-15 to 25-07-15 (**Funds: Rs. 15,000**).
14. **Course Instructor**, Certificate course on “**Drug Design and Docking Studies**” from 10-08-15 to 10-02-16 (**Funds: Rs. 10,000**).

INTERNATIONAL/NATIONAL/ BOOK CHAPTER PUBLICATIONS

(Citations: 137, h-index: 7, i10 index:5)

HIGH IMPACT PUBLICATIONS/ POSTER /PAPER PRESENTATION:

1. Chand, Yamini, and Sachidanand Singh. "Prioritization of potential vaccine candidates and designing a multiepitope-based subunit vaccine against multidrug-resistant *Salmonella Typhi* str. CT18: A subtractive proteomics and immunoinformatics approach." **Microbial Pathogenesis** 159 (2021): 105150 (**Impact Factor: 3.78**).
2. Sao, Prachi, Yamini Chand, Atul Kumar, and Sachidanand Singh. "Potential drug target identification in *porphyromonas gingivalis* using in-silico subtractive metabolic pathway analysis." **Bangladesh Journal of Medical Science** 20, no. 4 (2021): 887-896 (**Scopus**).
3. Chand, Yamini, Prachi Sao, Shivani Singh, Niharika Chandra, Surojeet Das, and **Sachidanand Singh**. "Prioritizing potential diagnostic biomarkers of Alzheimer's disease by investigating gene expression data: A network-based approach: Biomarkers (non-neuroimaging)/Novel biomarkers." **Alzheimer's & Dementia** 16 (2020): e044322.z Abstract (**Impact Factor: 14.2**)- Poster Presentation.

4. Singh, Shivani, Shweta Paliwal, Namrata Verma, Surojeet Das, Niharika Chandra, and **Sachidanand Singh**. "An insight into anti-arthritis property of Schleicher oleosin for rheumatoid arthritis using molecular modelling approach." In **GENES & DISEASES**, vol. 7, no. 3, pp. 478-478. **RADARWEG 29, 1043 NX AMSTERDAM, NETHERLANDS: ELSEVIER, 2020- Paper Presentation**
5. George, Gincy, **Sachidanand Singh**, Sowmya Bekshe Lokappa, and Jobin Varkey. "Gene co-expression network analysis for identifying genetic markers in Parkinson's disease-a three-way comparative approach." **Genomics (2018). Elsevier, (Impact Factor: 5.8).**
6. Karaesmen, Ezgi, Abbas Rizvi, Leah Preus, Philip L. McCarthy, Marcelo C. Pasquini, Sandeep Kumar Singh, **Sachidanand Singh** et al. "Genome-Wide Significant Donor Genetic Associations with Death Due to Disease in AML and MDS Patients in the First 1 Year after BMT are Not Modified by Conditioning Intensity or TBI." **Biology of Blood and Marrow Transplantation** 24, no. 3 (2018): S79, **(Impact Factor: 4.7) - Paper Presentation**
7. Rizvi, Abbas, Ezgi Karaesmen, Leah Preus, Philip L. McCarthy, Marcelo C. Pasquini, **Sachidanand Singh**, Sandeep Kumar Singh et al. "Genetic Associations with Day+ 100 Transplant Related Mortality (TRM) after HLA-Matched Unrelated Donor (MUD) Blood and Marrow Transplantation (DISCOVeRY-BMT Study)." **Biology of Blood and Marrow Transplantation** 24, no. 3 (2018): S81-S82, **(Impact Factor: 4.7) - Paper Presentation**
8. Arulmozhi, S., Monica Steffi Matchado, V. P. Snijesh, Atul Kumar, and **Sachidanand Singh**. "An insight into anti-arthritis property OF C25H34O7 for Rheumatoid arthritis using molecular modelling and molecular dynamics approach." **Informatics in Medicine Unlocked (2018). (Impact Factor: 2.1), Quartile: Q3**
9. Snijesh, V. P., Monica Steffi Matchado, and Sachidanand Singh. "Classifying Rheumatoid Arthritis gene network signatures for identifying key regulatory molecules and their altered pathways by adopting network biology approach." **Gene Reports** 13 (2018): 199-211. **(Impact Factor: 0.6), Quartile: Q3**
10. Chand, Yamini, Md Afroz Alam, and **Sachidanand Singh**. "Pan-genomic analysis of the species Salmonella enterica: Identification of core essential and putative essential genes." **Gene Reports (2020): 100669. (Impact Factor: 0.6), Quartile: Q3**
11. Arulmozhi, S., Monica Steffi Matchado, V. P. Snijesh, Atul Kumar, and **Sachidanand Singh**. "An insight into anti-arthritis property OF C25H34O7 for Rheumatoid arthritis using molecular modelling and molecular dynamics approach." **Informatics in Medicine Unlocked (2018). (Impact Factor: 2.1), Quartile: Q3**
12. Femlin Blessia, J. Jannet Vennila, **Sachidanand Singh**. "Unwinding the novel genes involved in the differentiation of embryonic stem cells into insulin producing cells - a

network-based approach". **Interdisciplinary Sciences: Computational Life Sciences**, 2016: ISSN: 1913-2751, (Impact Factor: 2.23), Quartile: Q3

13. **Sachidanand Singh**, J. Jannet Vennila, V. P. Snijesh, Gincy George, and Chinnu Sunny. "Implying analytic measures for unraveling rheumatoid arthritis significant proteins through drug target interaction." *Interdisciplinary Sciences: Computational Life Sciences* (2015): 1-11. ISSN: 1913-2751, (Impact Factor: 2.23), Quartile: Q3
14. **Singh, Sachidanand**, Atul Kumar, K. Panneerselvam, and J. Jannet Vennila. "Diagnosis of arthritis through fuzzy inference system." *Journal of Medical systems* 36, no. 3 (2012): ISSN: 1459-1468. 1573-689X (Impact factor: 4.46, Citations: 48), Quartile: Q1

JOURNALS

15. Das, Surojeet, Parul Johri, Ruchi Sharma, Monika Kashyap, Shivani Singh, and **Sachidanand Singh**. "Comparative Modeling, Characterization and Energy Minimization Studies of Aquaporin 9: An Exclusive Target Protein for Rheumatoid Arthritis." *International Journal of Pharmaceutical Investigation* 9, no. 2 (2019): 43-46. (Scopus and WOS).
16. Singh, Abhishek, R. S. Sengar, Alok Kumar Singh, **Sachidanand Singh**, Atul Kumar, and Khurshid Ahmad. "Impact of Genetic Engineering on Agriculture Food Crops." *Biotech Today: An International Journal of Biological Sciences* 9, no. 1 (2019): 17-24.
17. Das, Surojeet, Vivek Kumar, Rini Tiwari, Leena Singh, and **Sachidanand Singh**. "Recent advances in hydrogels for biomedical applications." (2018). (Scopus Indexed)
18. Sunny JS, Snijesh VP and **Sachidanand Singh**. Potential Role of Mirnas in Rheumatoid Arthritis. *Austin Arthritis*. 2016; 1(2): 1009.
19. Sao, P., Kishore, I., **Sachidanand Singh**, Panneerselvam, K., Kumar, A., & Chaudhuri, T. (2013). "Putative Target Identification for Gout; A Network Biology Approach. *Journal of Bionanoscience*, 7(6), 649-653. ISSN: 1557-7910, (Citations: 1), Quartile: Q1
20. Blessantoli Mohandhas, J. Jannet Vennila, **Sachidanand Singh** (2012) "Drug target identification in *Helicobacter pylori* associated with Gastric Cancer: an Insilco approach, *Journal of Pharmacy Research* Vol.5: 4303-4306. ISSN: 2319-5622, Quartile: Q3
21. T.F. Blessia, **Sachidanand Singh**, Atul Kumar, J. Jannet Vennila (2011). "Application of Knowledge Based System for Diagnosis of Osteoarthritis". *Journal of Artificial Intelligence*. ISSN: 2077-2173, (Impact factor: 1.9, Citations:2), Quartile: Q4

22. J. Mano Bala, J. Jannet Vennila, G. Ganesh, Sachidanand Singh. (2011). "Analysis of active components in *Acanthus ilicifolius* leaves for their potential chemoprotective activity against hepatocellular carcinoma: An in-silico approach". Journal of Pharmacy Research. Vol. 4 (6). ISSN: 2319-5622, **(Citations: 2), Quartile: Q3**
23. **Sachidanand Singh**, Atulkumar, Ashish Patel, Anup Tripathi, Deepesh kumar, M. K. Verma (2010) "In Silico 3d Structure Prediction and Comparison of Nucleocapsid Protein of H1N1". Journal of Modelling and Simulation of Systems. Vol.1: 108-111. **ISSN: 1793-9615, (Citations: 4), Quartile: Q3**
24. S. Martha Merlyn, S. Shiney Valentina, **Sachidanand Singh**, J. Jannet Vennila and Atul Kumar. (2011). "Application of Artificial Intelligence in the Diagnosis of Eosinophilia". International Journal of Health & Medical Informatics. **ISSN: 1386-5056, Quartile: Q**
25. **Sachidanand Singh**, Manitha T.P, Atul kumar. (2010) "Optimized production and purification of bacterial tannase for large scale production" International journal of pharmaceutical research and development Vol.2: 4. **ISSN -0975-2366, Quartile: Q4**
26. Deepesh Kumar, AnupTripathi, **Sachidanand Singh**, Atul Kumar, J. Jannet Vennila, K. Panneerselvam. (2010) "Identification of *In-silico* 3D Structure of Cyclooxygenase-2(COX-2) Responsible for Biosynthesis of the Prostanoids" Online Journal of Biotechnology Research Vol. 1:4. **ISSN 1944-3285. Quartile: Q3**
27. **Sachidanand Singh**, J. Jannet Vennila, and Rajiv Kant. "Gene interaction map: a paradigm for identifying significant pathways responsible for rheumatoid arthritis." Network Modeling Analysis in Health Informatics and Bioinformatics, Springer, 3.1 (2014): 1-7. **ISSN: 2192-6670**
28. Snijesh, V. P., and Sachidanand Singh. "Molecular modeling and network based approach in explaining the medicinal properties of *nyctanthes arbortristis*, *lippianodiflora* for rheumatoid arthritis." Journal of Bioinformatics and Intelligent Control 3, no. 1 (2014): 31-38. ISSN: 2326-7496, **(Citations:2)**
29. **Sachidanand Singh** and J. Jannet Vennila. "Gene Expression Profiling for Identifying Key Role of Synovial Macrophages in Rheumatoid Arthritis." Int J Comput Bioinfo In Silico Model 3.2 (2014): 332-336. **ISSN: 2320-0634 (Citations: 1)**
30. Mohana Priya Raman, **Sachidanand Singh**, Ponnuswamy Renuka Devi, Devadasan Velmurugan (2012) Uncovering potential Drug Targets for Tuberculosis using Protein Networks Bioinformation. **ISSN 0973-2063, (Impact Factor: 0.5 Citations: 7)**
31. Brigit, S. A., Amitha, J., Sathish, S., **Sachidanand Singh**, Atul, K., & Jannet, J. V. (2012). Detection of Obstructive Jaundice through Artificial Intelligence. Journal of Bioinformatics and Intelligent Control, 1(2), 121-128. **ISSN: 2326-7496, (Citations: 1)**

32. **Sachidanand Singh**, Atulkumar, Manitha T.P, D. Jaya. Sundra Sharmilla, K. Panneerselvam. (2010) "Detection of Over Expression of Gene in Small Lung Carcinoma by Cigarette Smoking". International Journal of Engineering Science and Technology. Vol. 2: 243-246. **ISSN: 2141-2839**
33. Anup tripathi, Deepesh Kumar, **Sachidanand Singh**, Atul kumar, Manitha T. P., Babu Ram, K. Panneerselvam, J. Jannet Vennila. (2010) "In Silico Epitope Structure Prediction for Matrix Protein of H1N1" Annals of Biological Research Vol.2 : 16-22, ISSN: 0975-508X.
34. Atul Kumar, **Sachidanand Singh**, Akash tomar. (2010). "Development of Midi-Plasmid Isolation Kit & Cost Optimization of DNA Molecular Weight Ladder: Economy of Laboratory vs. Commercial Product". Advances in Applied Science Research Vol. 1: 129-146. ISSN: 0976-8610, (Citations: 1),
35. J. Manobala, J. Jannet Vennila and **Sachidanand Singh**. (2010). "Comparative Protein Modelling of Metallothionein 1b Protein Acting as a Potential Chemo Protector Against Hepatic Neoplasia". International Journal of Applied Biology and Pharmaceutical Technology. Vol. 1: 1092-1097. ISSN 0976-4550, (Impact Factor: 0.9), (Citations: 1)
36. G. Shashikanth, James Abraham, **Sachidanand Singh**, Atul Kumar, J. Jannet Vennila. (2011). "Modelling of Infectious Immunological Pathway Protein Related to Systemic Lupus Erythematosus (SLE) Acting as Drug Targets". International Journal of Drug Formulation and Research, Vol. 2. ISSN 2229-5054.

BOOK CHAPTER:

1. **Sachidanand Singh**, V. P. Snijesh, and J. Jannet Vennila. "Rheumatoid Arthritis Candidate Genes Identification by Investigating Core and Periphery Interaction Structures." **In Computational Intelligence in Medical Informatics**, pp. 87-96. Springer Singapore, 2015. ISBN 978-981-287-260-9. (Citations:1).
2. Verma, Namrata, Prachi Sao, Aashna Srivastava, and **Sachidanand Singh**. "Physiological and Molecular Responses to Drought, Submergence and Excessive Watering in Plants." **Harsh Environment and Plant Resilience: Molecular and Functional Aspects**: 305.

SOCIETY REGISTRATION:

1. Life Member of Society for Biotechnologists (INDIA) (ID: 972)
2. Life Member of Agricultural Technology Development Society (INDIA) (ID: 1105)

WORKSHOP AND TRAINING PROGRAM ATTENDED

1. Five-day faculty development program from **10-14 July 2020** held on the topic "**E Content creation for MOOCs and Moodle**", organized by **Institute of Engineering and Technology, Faizabad and IIT Bombay- Spoken Tutorial**.

2. Two-day national workshop from **23-24th October, 2019** held on the topic **“Application of technical vocabulary in the field of science and technology”**, organized by SRMU, Uttar Pradesh Science & Technology Council, State Higher Education Ministry, government.
3. Two days Faculty Development Program on Resource Mobilization for Research, SRMU, 15th -16th July, 2019.
4. **Five days** faculty development program from 1 July – 6 July, 2018, SRMU.
5. **Six days** workshop July 22- 27, 2016, Karunya University, EMC Academic Associate, **Data Science and Big Data Analytics** by EMC Education Services.
6. **Three Days** workshop on **“Next Generation Sequencing”** held on 07- 09 Oct, 2015 By Mysore University, India
7. **Fifteen days’** workshop (Sixth UGC- Networking resources Centre) on **“Basic Immunological Techniques”** by **Indian Institute of Science, Bangalore**.
8. **Two days** faculty development program on Statistical Analysis and Interpretation Using SPSS and AMOS, by School of Business, leadership and management, **Karunya University**.
9. **Six days** workshop on **“High Impact teaching skill by Dale Carnegie”**, Mission10X, conducted by **Wipro Pvt. India Ltd**.
10. **Six Days** Workshop attended on **“Modeling of Infectious diseases”** conducted by **Institute of mathematical Sciences** funded by IISC Bangalore and CCMB Hyderabad.
11. **Two Days** Workshop on **“Application of System Biology in Molecular Interaction network”** conducted by **BIOCOS Life Sciences** company funded by ICMR.
12. **Three-day** training on supercomputer facility for bioinformatics and computational biology at **Indian Institute of Technology, Delhi**.
13. **Three months** project on Artificial intelligence at **National Institute of Technology, Raipur**.
14. **Two months** training of MAT LAB for Neural Network and Fuzzy Logic, **Karunya University**.
15. **One-month** training program on **“Computational Analysis of genomics & Proteomics”** from **The Bioinformatics Solutions, Barabanki**.
16. **One-month** training on **“Industrial Microbiology”** in **Mohan Meakin Ltd, Barabanki**.
17. **One-month** training on **“Quality & Chemical Analysis of Milk & Milk Product”** in **Pradeshik Co-operative Dairy Federation Limited, Barabanki**.

NATIONAL/INTERNATIONAL SYMPOSIUM PARTICIPATION/PRESENTATION

ABROAD:

1. **Presenting author** for the poster presentation on **“Genetic variation in the MHC region increases risk of death to graft versus host disease in leukemia patients treated with an HLA-matched unrelated donor transplant”**, Sachidanand Singh, Sandeep Kumar Singh, Abbas Rizvi, Ezgi Karaesmen, Leah Preus, Philip L.

McCarthy, Marcelo Pasquini, Kenan Onel, Xiaochun Zhu, Stephen Spellman, Christopher Haiman, Daniel O. Stram, Loreall Pooler, Xie Sheng, Qianqian Zhu, Li Yan, Qian Liu, Qiang Hu, Song Liu, Alyssa I. Clay-Gilmour, Sebastiano Battaglia, David Trichtler, Theresa Hahn, Lara E Sucheston-Campbell, **at 2nd Annual Division of Pharmaceutics Scientific Retreat, 2017, September 22, at College of Pharmacy, Ohio State University, Ohio, USA.**

2. **Co-Author** of the poster Presentation of **“LBA4 Donor SNPs in IL1RL1, Strongly Correlated with Serum sST2 Concentration, Significantly Associate with Risk of Acute GvHD: Implications for Donor Selection”**, Lara Sucheston-Campbell, Sandeep Kumar Singh, Ezgi Karaesmen, Abbas Rizvi, Sachidanand Singh, Tao Wang, Michael Haagenson, Alex Dile, Leah Preus, Stephen R. Spellman, Stephanie J. Lee, Theresa E. Hahn and Sophie Paczesny, and **BMT Tandem Meeting, February 24- 2018, Salt Lake city, Utah, USA.**
3. Co-Author of the poster presentation of **“Donor SNPs in IL1RL1, strongly correlated with serum SST2 concentration, significantly associate with risk of acute GvHD: Implications for donor selection”**, Ezgi Karaesmen, Abbas Rizvi, Michael Sovic, Junke Wang, Sandeep Kumar Singh, **Sachidanand Singh**, Tao Wang, Michael Haagenson, Alex Dile, Leah Preus, Stephen R. Spellman, Stephanie J. Lee, Theresa E. Hahn, Sophie Paczesny, Lara Sucheston-Campbell, **at 13TH annual research day celebrates expansive research in the college, April 4, 2018, at College of Pharmacy, Ohio State University, Ohio, USA.**
4. Co-Author of the poster presentation of Sucheston-Campbell, Lara, Sandeep Kumar Singh, Ezgi Karaesmen, Abbas Rizvi, **Sachidanand Singh**, Tao Wang, Michael Haagenson et al. "Donor SNPs in IL1RL1, strongly correlated with serum sST2 concentration, significantly associate with risk of acute GvHD: implications for donor selection." **In 2018 BMT Tandem Meetings. TCT Meetings, 2018.**
5. Co-Author of the poster presentation of **“Genetic associations with day +100 transplant related mortality after hla-matched unrelated donor blood and marrow transplantation”**, Abbas Rizvi ,Ezgi Karaesmen, Michael Sovic, Junke Wang, **Sachidanand Singh**, Sandeep Kumar Singh, Tao Wang, Michael Haagenson, Alex Dile, Leah Preus, Stephen R. Spellman, Stephanie J. Lee, Theresa E. Hahn, Sophie Paczesny, Lara Sucheston-Campbell, **at 13TH annual research day celebrates expansive research in the college, April 4, 2018, at College of Pharmacy, Ohio State University, Ohio, USA.**

INDIA:

1. Oral Presentation on “Characterizing a Putative protein involved in Parkinsons disease: An integrated approach” in National Conference on Emerging Innovations in Agriculture, Biotechnology, and Health Sciences In B.N College of Engineering and Technology, Barabanki, **November 8-9, 2019.**
2. Poster presentation and collaborating Author on “**Functional annotation of Rheumatoid Arthritis associated loci identified by genome-wide association studies**” in an **BiOmics'19 - Symposium on Biomics between 17th April, 2019.**
3. Presented paper on “Therapeutic approaches for the identification of SLE target proteins” in National conference on “**Big Data In Life Sciences and Health care**” Amity University, Barabanki between 12-13th February, 2015.
4. Poster presented on “Analysis of Osteopontin (OPN) as intrinsically disordered proteins using computational and biophysical properties” in an International conference on “**Converging Biotechnological innovations in Health, Food and Environmental welfare**” ICCBI-2015 between 2-4th, Dec, 2015.
5. Poster presented on “**Revealing Sub Network Signatures for Predicting Outcomes of Rheumatoid Arthritis Treatment**” in an **International Conference on New Horizons In Biotechnology**, Nov-22-25, 2015.
6. Abstract published on “**Molecular modeling study of the interaction between small molecules of medicinal plants and inflammatory targets**” in an International conference on Bio India ICBI-2012 funded by DRDO and MESGI, held in Vivekananda Educational Institutions.
7. Abstract published on “**Uncovering potential Drug Targets for Tuberculosis using Protein Networks**” in an International conference on Recent Perspectives in Macromolecular structures and Functions, held in Central Agricultural Research Institute, Port Blair.
8. Abstract published on “**In silico mutational analysis of AB hydrolase superfamily for the selection of putative drug targets**” in an International conference on Bio India ICBI-2012 funded by DRDO and MESGI, held in Vivekananda Educational Institutions.
9. Abstract published on “**Gene Expression studies using network biology approach in gastric cancer**” in a 3rd International conference on Bioinformatics and Systems Biology INCOBS-2012 funded by DBT, DST, ICMR and DST, held in Annamalai University.
10. Abstract published on “**Expression based analysis of synovial macrophages for Rheumatoid Arthritis**” in a 3rd International conference on Bioinformatics and Systems Biology INCOBS-2012 funded by DBT, DST, ICMR and DST, held in Annamalai University.
11. Paper presented on “**Identification of significant pathways responsible for rheumatoid arthritis through Network Biology Approach**” in national conference held by BIOCOS Life sciences Pvt . Ltd.
12. Abstract published on “**Therapeutic Target identification for Cervicitis through Data Mining Approach**” in a 2nd International conference on Bioinformatics and

Systems Biology INCOBS-2011 funded by DBT, DST, ICMR and DST, held in Annamalai University.

13. Abstract published on **“Common Disease pathway Analysis for Sjogren’s Syndrome through Network biology Approach”** in a 2nd International conference on Bioinformatics and Systems Biology INCOBS-2011 funded by DBT, DST, ICMR and DST, held in Annamalai University.
14. Poster and abstract published/presented on **“Therapeutic targets identification for gastric cancer through *Insilico* approach”** in a national symposium/ workshop conducted by Alagappa University funded by Department of biotechnology and TNSCST.
15. Paper presented on **“Therapeutic target identification and shortest pathway analysis for systemic lupus erythematosus”** at national level symposium, supported by Tamil Nadu Science and Technology.
16. Paper presented on **“Analysis of inhibitory of 2,4-diamino -5-deazapteridine (DMDP) derivatives against recombinant human dihydrofolate reductase”** in a international conference on Drug design and development in Nadar Saraswathi College of Arts & Science.
17. Paper presented on **“*In-silco* vaccine production against Japanese encephalitis”** at International Seminar on Role of Biotechnology in corporate field.
18. Paper presented on **“*In-silico* 3d structure prediction of nucleocapsid protein of influenza A (H1N1) virus, responsible for the swine flu disease”** at International Seminar on Role of Biotechnology in corporate field.
19. Attended a “National conference on Computational Biology”, organized by Karunya University, 2009.
20. Won Second prize in poster presentation in “National Science Conference”, organized by Sardar Vallabh Bhai Patel University of Agriculture and Technology.

REFERENCES:

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