



**Dr. J. Joseph Sahayarayan**  
**Assistant Professor**

**Contact:**

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**Academic Qualifications:**

<b>Degree</b>	<b>Year of Passing</b>	<b>University / Institute</b>
Ph.D. (Biotechnology)	November-2010	Bharathidasan University, Tiruchirappalli.
M.Sc. (Biotechnology)	April-2004	Bishop Heber College, Tiruchirappalli. (Bharathidasan University)
B.Sc. (Biochemistry)	April - 2002	Arputha College of Arts & Science, Vamban, Pudukkottai. (Bharathidasan University)

### Teaching Experience: 10.5 Years

Designation	Institution	Department	Duration
Assistant Professor	Alagappa University, Karaikudi, Tamil Nadu	Bioinformatics	Dec 2015 to till date
Assistant Professor	St. Joseph Groups of Institutions, Dar Es Salaam, Tanzania	General Engineering	-
Assistant Professor	RVS College of Arts and Science College, Karaikal, Pondicherry	Biochemistry and Microbiology	June 2010 to March 2012

### Research Experience: 13 Years

### Additional Responsibilities:

Sl.No.	Position - Dept. of Bioinformatics		Organization
1.	Member - Bioinformatics and Drug Discovery Society		Alagappa University
2.	Department level Member	Curriculum Development	Alagappa University
3.	Department level Member	Examination Board	Alagappa University
4.	Department level Member	Purchase Committee	Alagappa University
5.	Department level Member	Research Committee	Alagappa University
6.	Department level Co-coordinator	Time table	Alagappa University
7.	Department level Co-coordinator	M. Sc., Department Level external exam evaluation	Alagappa University
8.	Department level Co-ordinator	Academic Audit (IQAC)	Alagappa University
9.	Department level Co-ordinator	Alumni and Parent Teacher Association	Alagappa University
10.	Department level Co-ordinator	Mentor - Mentee Report	Alagappa University
11.	Department level Co-ordinator	Vivekananda Cadet Corps/ Employability Skills/ Career Guidance	Alagappa University
12.	Department level Co-ordinator	Azhagu/ Departmental magazine and e-magazine	Alagappa University
13.	Department level Co-ordinator	Swachhata Hi Seva (SHS)	Alagappa University

## Areas of Research Specialization:

**Plant Bioinformatics** - Network Pharmacology, Database Creation, Computer Aided Drug Designing and Next Generation Sequencing in plant system

My research area is mainly focusing on identification of bioactive compounds from medicinally important plants and concentrates on human diseases. Due to emerging problems of drug resistance in bacteria, fungus and viruses in plant system. Development of metabolic products for the control of bacterial, fungal and viral pathogens, which often emerges as a secondary infection following antibiotic treatment. Mainly explored many lead compounds from medicinal plants showing effect on bacterial, fungal and viral infection and human health.

- Quantification and purification of bioactive compounds
- Computational comparative genomics based detection of novel genes
- Chemical synthesis of the novel and putative defensins
- Structural elucidation of compounds using advanced techniques
- Genotoxicity studies
- Pharmacophore mapping and 3D QSAR studies
- Molecular docking studies using standard software and tools

## Ph. D Research Work:

### Title of the Thesis:

*In vitro* regeneration, Hairy root culture and *Agrobacterium tumefaciens*-mediated transformation in West Indian Gherkin (*Cucumis anguria* L.), Under the Guidance of Dr. A. Ganapathi, Department of Biotechnology, School of Life Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu.

## Extension Activities:

Sl.No.	Role	Name of the Field activity	Conducted at	Period	
				From	To
1	Department level Coordinator	VPP	Thiruvelangudi, Karaikudi, Tamil Nadu	23.09.2016	25.09.2016
2	Department level Coordinator	VEP	Azhagapuri, Karaikudi, Tamil Nadu	11.10.2018	13.10.2018
3	Department level Coordinator	Swachhata Hi Seva (SHS)	Ariyakudi, Karaikudi, Tamil Nadu	25.09.2018	25.09.2018

**Orientation / Refresher / MOOC / FDP / Other Courses Attended:**

Sl. No	Name of the Course	Conducted by	Course Period		No. of Days	Place
			From	To		
1.	National Short Term Training Course on "Plant Molecular Biology"	Plant Molecular Biology Laboratory, Department of Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu.	21.02.2005	06.03.2005	14	Bharathidasan University, Tiruchirappalli, Tamil Nadu.
2.	Faculty Development (Enrichment) Program – Accreditation Quality Enhancement.	Internal Quality Assurance Cell, Alagappa University, Karaikudi, Tamil Nadu.	06.01.2017	12.01.2017	07	Alagappa University, Karaikudi, Tamil Nadu.
3.	Research Publication and Anti-Plagiarism.	Alagappa University Karaikudi, Tamil Nadu.	09.10.2017	15.10.2017	07	Alagappa University, Karaikudi, Tamil Nadu.
4.	UGC-Sponsored 100 <sup>th</sup> Orientation Programme.	UGC, HRDC, Bharathidasan University Tiruchirappalli, Tamil Nadu.	15.11.2017	12.12.2017	28	Bharathidasan University, Tiruchirappalli, Tamil Nadu.
5.	UGC-Sponsored Refresher Course in Life Sciences (Interdisciplinary*)	UGC, HRDC, Bharathidasan University Tiruchirappalli, Tamil Nadu.	16.07.2019	29.07.2019	14	Bharathidasan University, Tiruchirappalli, Tamil Nadu.
6.	UGC-Sponsored Refresher Course in Life Sciences (Interdisciplinary*)	UGC, HRDC, Bharathidasan University Tiruchirappalli, Tamil Nadu.	08.09.2021	21.09.2021	14	Bharathidasan University, Tiruchirappalli, Tamil Nadu.
7.	UGC-Sponsored Refresher Course in Biological Sciences (Interdisciplinary*)	UGC, HRDC, Bharathidasan University Tiruchirappalli, Tamil Nadu.	05.07.2022	18.07.2022	14	Bharathidasan University, Tiruchirappalli, Tamil Nadu.

**Research Supervision/Guidance:**

Program of Study		Completed	Ongoing
Research	Ph.D.	-	2
	M.Phil.	1	-
Project	M.Tech.	-	-
	M.Sc.	15	4
	P.G.D.S.P.	1	-
	UG / Others	-	-

**Publications:**

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters/ Monographs / Manuals
16	18	1	12	1

Cumulative Impact Factor (as per JCR)	37.691
Average Impact Factor	4.345
h-index (As per Google scholar)	08
i10 index	08
Total Citations	308

**Funded Research Project**

Sl. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1.	AURF Start-up Grant	2018	2020	Isolation, structural elucidation and biological properties of secondary metabolites from <i>Mucuna pruriens</i> and their <i>In Silico</i> studies	50,000/-
2.	RUSA	2019	2020	Computational defensin profiling, chemical synthesis and assessment of bioactivity in	First Installment 4,80,000/-

				<i>Cucumis anguria</i> L. against antibiotic resistant New Delhi $\beta$ lactamase producers	
3.	TANSICHE	2021	2024	<i>In vitro</i> and <i>In silico</i> approach in endangered medicinal plant <i>Hemidesmus indicus</i> for conservation and production of clinically important triterpenoids (CO - PI)	Without Budget
4.	RUSA	2022	2023	Computational defensin profiling, chemical synthesis and assessment of bioactivity in <i>Cucumis anguria</i> L. against antibiotic resistant New Delhi $\beta$ lactamase producers	Second Installment 5,22,000/-

### Distinctive Achievements/Awards:

- ❖ University Research Fellowship (Bharathidasan University) - (Jan 2007 – Dec 2009).
- ❖ Key Note Speaker Award by Eudoxia Research Centre, Eudoxia Education Private Limited, Guwahati, India. (Aug - 2019).

### Events Organized in Leading Roles:

1. Organizing Committee Member in “8<sup>th</sup> National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design"(SBCADD'2016), at Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.
2. Event Co-ordinator for the ALUTES 2016 organized by the Cultural Club, Alagappa University, Karaikudi, Tamil Nadu.
3. Organizing committee member in “9<sup>th</sup> National Symposium cum Workshop on “Recent Trends in Structural Bioinformatics and Computer Aided Drug Design” (SBCADD'2017), at Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.
4. Organizing committee member in “10<sup>th</sup> National Symposium cum Workshop on “Recent Trends in Structural Bioinformatics and Computer Aided Drug Design” (SBCADD'2018), at Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.
5. Co-ordinator (Department level) for SWACHHTA HI SEVA 2018 Organized by Alagappa University, Karaikudi during 15<sup>th</sup> Sep-2<sup>nd</sup> Oct 2018 by University Grants Commission, New Delhi.
6. Organizing committee member in “11<sup>th</sup> National Symposium cum Workshop on “Recent Trends in Structural Bioinformatics and Computer Aided Drug Design” (SBCADD 2019), at Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.
7. Co-ordinator (Department level) for MHRD-UGC Initiative Swachhta Hi Seva, Swachhta Pakhwada, Rashtriya Poshan Maah & Jal Shakti Abhiyan Programmes Organized by

Alagappa University, Karaikudi, Tamil Nadu during 1<sup>st</sup> July- 30<sup>th</sup> November 2019.

8. Organizing Committee Member in “International Conference on Recent Trends in Structural Bioinformatics and Computer Aided Drug Design” (ICSBCADD 2019), Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.
9. Organizing Committee Member in 2<sup>nd</sup> International Conference cum Workshop “Recent Trends in Structural Bioinformatics and Computer Aided Drug Design” (ICSBCADD’ 2022), 21<sup>st</sup> – 25<sup>th</sup> November, 2022, Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.

**Events participated & Presented in International Conferences, Seminar, Workshop and Symposium:**

Sl.No	Name of the Conference/Seminar/Work-Shop	Date and Place of Conference, etc.,	Title of Paper Presented / Attended
1.	International Symposium on “Frontiers in Genetics and Biotechnology – Retrospect and Prospect”.	(08 <sup>th</sup> to 10 <sup>th</sup> Jan-2006) Department of Genetics, Osmania University, Hyderabad, India.	Attended
2.	International Colloquium on “Environmental Pollutant Hazards Management & Preventing Viral Diseases” - (IC - 2010).	(29.10.2010) Department of Biochemistry, RVS College of Arts and Science, Karaikal, Pondicherry.	Attended
3.	International Conference on “Recent Trends in Biosciences) - (ICRTB 2016).	(07 <sup>th</sup> to 09 <sup>th</sup> Apr-2016) Biosciences Departments, Alagappa University, Karaikudi, Tamil Nadu.	BioInformatics Opportunities for Identification and study of medicinal Plants. (Poster presentation)
4.	International workshop on “Molecular Physiology, Therapeutics and Experimental Medicine” - (MPTEM - 2016).	(6 <sup>th</sup> to 7 <sup>th</sup> - Sep - 2016) Department of Animal Health and Management, Alagappa University, Karaikudi, Tamil Nadu.	Attended
5.	International workshop on “Data Science & Analytics” – 2016.	(27 <sup>th</sup> to 28 <sup>th</sup> - Sep - 2016) Department of Computer Science, Alagappa University, Karaikudi, Tamil Nadu.	Attended
6.	International conference on “Recent Trends in Microbiology” (RTM - 2016).	(20 <sup>th</sup> to 21 <sup>th</sup> Dec - 2016) Department of Microbiology, Science campus, Alagappa University, Karaikudi, Tamil Nadu.	Phytochemical Screening and Antimicrobial Activity of <i>Cucumis anguria</i> L. Leaves.

7.	One day National Level Conference on "Exploring Commercialization of Biosensor in India".	(4 <sup>th</sup> – Mar - 2017) Department of Bioelectronics and Biosensors, Alagappa University, Karaikudi, Tamil Nadu.	Attended
8.	2 <sup>nd</sup> International Conference on "Recent Trends In Microbiology" - (RTM-2018).	(11 <sup>th</sup> -12 <sup>th</sup> Jan-2018) Department of Microbiology, Science campus, Alagappa University, Karaikudi, Tamil Nadu.	Attended
9.	International Conference on "Information, Communication and Digital Security" – (ICICDS 2018)"	(21 <sup>th</sup> to 22 <sup>nd</sup> March-2018) Department of Computer Applications, Alagappa University, Karaikudi, Tamil Nadu.	Attended
10.	3 <sup>rd</sup> International Conference on "Recent Trends In Microbiology" - (RTM-2018).	(24 <sup>th</sup> -25 <sup>th</sup> Jan-2019) Department of Microbiology, Science campus, Alagappa University, Karaikudi, Tamil Nadu.	Attended
11.	International Conference on "New Frontiers in Engineering, Science, Law, Management, Humanities and Social Science" – 2019. (INFES-2019).	(23 <sup>rd</sup> Feb- 2019) IST-Gauhati University, Guwahati, India.	Influences of shoot organogenesis in <i>Lavandula pubescens</i> using treatment with ethylene inhibitors and polyamines.
12.	International Conference on "Bioplastics" - (BIOP 2019).	(2 <sup>nd</sup> April- 2019) Department of Microbiology, Science campus, Alagappa University, Karaikudi, Tamil Nadu.	Attended
13.	International Conference on "Computational Sciences" - (ICCS 2019).	(23.10.2019 to 24.10.2019) Department of Computer Science, Alagappa University, Karaikudi, Tamil Nadu.	1. Medicinal plants Database for Dengue, Tuberculosis and Jaundice: A common Platform for Genomic, Chemical and Traditional Information. 2. <i>In -Silico</i> approach for screening and Assessment of Phytochemicals using National plants for Snake Bite.
14.	International Conference on "Innovative and Emerging Trends in Botany" - (ICIETB-2019).	(6 <sup>th</sup> – 7 <sup>th</sup> Nov-2019) Department of Botany,	Attended



		Alagappa University, Karaikudi, Tamil Nadu.	
15.	International Conference on "Recent Trends in Bioplastics" (RTB- 2019)	(9 <sup>th</sup> & 10 <sup>th</sup> Dec-2019) Department of Microbiology, Science campus, Alagappa University, Karaikudi, Tamil Nadu.	Attended
16.	International Conference on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design".	(11.12.2019 to 13.12.2019) Department of Bioinformatics, Alagappa University, Karaikudi.	1. Virtual Screening approaches to identify potent inhibitors against Obesity causing protein in PCOS. 2. A computational study to analyze the potent inhibitor against Cardiovascular disease (CVD) from <i>Salix tetrasperma</i> .

#### Events participated & Presented in National Conferences, Seminar, Workshop and Symposium:

Sl.No	Name of the Conference/Seminar/ Work- Shop	Date and Place of Conference, etc.,	Title of Paper Presented / Attended
1.	One day National Workshop on "Patent Information".	29 <sup>th</sup> April 2009, Jointly organizes by Patent cell, Bharathidasan University, Tiruchirappalli, National Institute of Technology, Tiruchirappalli & Tamil Nadu State Council for Science and Technology, Chennai, Tamil Nadu.	Attended
2.	8 <sup>th</sup> National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" - (SBCADD - 2016).	(16 <sup>th</sup> to 19 <sup>th</sup> Feb-2016) Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.	Assessment on Superior Protein Structure of Transgenic Cucumber ( <i>Cucumis sativus</i> L.) using Computational Tools and Software's.
3.	"World Animal Day Celebration".	(4 <sup>th</sup> Oct-2016) Department of Animal Health and Management, Alagappa University, Karaikudi, Tamil Nadu.	Attended
4.	9 <sup>th</sup> National Symposium cum Workshop on "Recent Trends in	(14 <sup>th</sup> to 17 <sup>th</sup> - Feb -2017) Department of Bioinformatics,	1. Protein-Protein docking studies

	Structural Bioinformatics and Computer Aided Drug Design" - (SBCADD - 2017).	Alagappa University, Karaikudi, Tamil Nadu.	of RANKL-RANK and the structural transition inducement of Hydroxyapatite for bone Remodeling – <i>in silico</i> perspective. 2. Understanding the Molecular Evolution, Divergence and their Structural Impact of Selenoprotein P - A computational approach.
5.	"World Animal Day Celebration".	(4 <sup>th</sup> Oct-2017) Department of Animal Health and Management, Alagappa University, Karaikudi, Tamil Nadu.	Attended
6.	Five Day Workshop on "Commercialization Prospects of Microbial Formulates".	(22 <sup>nd</sup> to 25 <sup>th</sup> Jan-2018) Jointly organized by Department of Microbiology and University Business Collaboration Centre (UBCC), Alagappa University, Karaikudi, Tamil Nadu.	Attended
7.	One Day Workshop on "Technical and Scholarly Writing".	(14.02.2019) Technical and Academic Writing Centre, Alagappa University, Karaikudi, Tamil Nadu.	Attended
8.	10 <sup>th</sup> National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" - (SBCADD – 2018).	(20 <sup>th</sup> to 23 <sup>th</sup> –Feb -2018) Department of Bioinformatics, Alagappa University, Karaikudi.	1. <i>In silico</i> analysis of potential targets in <i>Mycobacterium tuberculosis</i> . 2. <i>In silico</i> studies of proteins (RANKL, RANK & OPG) involved in osteoporosis & docking analysis of ant osteoporotic compounds isolated from

			medicinal plants.
9.	National Conference on "Advanced Materials For Sustainable Energy and Sensors" - (NCAMSES-2019).	Department of Physics, Alagappa University, Karaikudi, Tamil Nadu.	Attended
10.	A two Day National Conference on "Recent Trends in Drug Discovery Development and Targeted Delivery System for Cancer" - 2019.	(26.09.2019 to 27.09.2019) PG and Research Department of Biochemistry, J.J. College of Arts and Science (Autonomous), Pudukkottai, Tamil Nadu.	1. Identification of potential compound against CARM1 breast cancer protein using various species of <i>Hibiscus</i> . 2. Identification of Potent Inhibitor from Medicinal Plants for ABL Kinase Involved in Cervical Cancer through <i>In silico</i> Approach.
11.	11 <sup>th</sup> National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" - (SBCADD - 2019).	(12.02.2019-15.02.2019) Department of Bioinformatics Alagappa University, Karaikudi, Tamil Nadu.	1. "A computational approach to find an effective targets for 1, 3-Indandione based Schiff base ligands in search of anticancer drugs". 2. " <i>In silico</i> identification of compounds from <i>Adansonia digitata</i> plant for the treatment of Bladder cancer". 3. " <i>In silico</i> identification of compounds against on Diabetic Retinopathy". 4. " <i>In silico</i> docking studies with natural compounds & comparative analysis of

			available drugs against tau protein for Alzheimer disease". 5. "In silico identification of potent inhibitor against viral protein NS3 helicase from dengue virus".
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**Online certificates during covid 19 period (Webinars/Quiz):**

S. No.	Name of the Webinar/Quiz/Online conference	Organizer	Date
1.	"Coaching Aptitude Test-2020", State Level Quiz Competition for Teaching Proficient.	Department of Commerce (CA), Thiruvalluvar University Model Constituent College of Arts and Science, Tittagudi, Cuddalore, Tamil Nadu.	13.05.2020
2.	Webinar on "Micro & Nanotechnology and its Applications".	Department of Physics, G.T.N. Arts College (Autonomous), Dindigul, Tamil Nadu.	14.05.2020
3.	Webinar on "Research in Physics and COVID'19".	Department of Physics, IDHAYA College For Women, Sarugani, Tamil Nadu.	14.05.2020
4.	Employability Enhancement Webinar Series titled "Patent Professional – as a career".	Intellectual Property Rights Cell, Bharathidasan University, Tiruchirappalli, Tamil Nadu.	18.05.2020
5.	Online Awareness Quiz on COVID-19.	PG & Research Department of Economics, Kandaswami Kandar's College, Velur, Namakkal, Tamil Nadu.	18.05.2020
6.	e-Quiz on "TechnoInfo-2020".	Department of Computer Applications, J.J. College of Arts and Science (Autonomous), Pudukkottai, Tamil Nadu.	21.05.2020
7.	"Computer Quiz on Fundamentals".	Department of Computer Science, K.S.R College of Arts and Science For Women, Tiruchengode, Namakkal, Tamil Nadu.	22.05.2020

8.	National Level Online Awareness Quiz Programme on "International Day for Biological diversity-2020".	Biogalaxy, Department of Microbial Biotechnology, Bharathiar University, Coimbatore, Tamilnadu.	22.05.2020
9.	Online Quizophile - 2020 Competition.	EGS Pillay Group of Institutions, Nagapattinam, Tamil Nadu.	26.05.2020
10.	Online Quiz on "Molecular Genetics".	Department of Microbiology, Palanisamy College of Arts, Perundurai, Erode, Tamilnadu.	26.05.2020

### Membership in professional/ National/International Bodies:

1. Life member: BIDDS (Bioinformatics Drug Discovery Society), Karaikudi, Tamil Nadu.

### Resource persons in various capacities/ Invited Lecture:

Sl.No	Name of Invited Lecture/ Seminar / Conference	Organizer	Date
1.	Lecture on "Transgenic Plants" in the Remedial Coaching Class for Bioinformatics students. (Invited Lecture)	Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.	22.01.2016
2.	Lecture on "Medicinal Plants and its applications for human diseases" in the Remedial Coaching Class for Bioinformatics students. (Invited Lecture)	Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.	22.03.2019
3.	Five Day National Workshop on "Gene Transfer Technology in Plant Cells". (Invited Lecture)	Department of Biotechnology, Mother Teresa Women's University, Kodaikanal, Tamil Nadu.	03.09.2019 to 07.09.2019
4.	International Conference on "Innovative and Emerging Trends in Botany" - (ICIETB-2019). (Resource Person)	Department of Botany, Alagappa University, Karaikudi, Tamil Nadu.	6.11.2019 & 7.11.2019
5.	SPARC and RUSA 2.0 Sponsored "International Conference on Recent Trends in Bioplastics" (RTB-2019). (Judge)	Department of Microbiology, Alagappa University, Karaikudi, Tamil Nadu.	9.12.2019 & 10.12.2019
6.	"E-Learning Program on Bioinformatics as Cartographic tool in Drug Discovery". (Invited Lecture)	Department of Bioinformatics, Alagappa University, Karaikudi, Tamil Nadu.	27.05. 2020

7.	International Workshop on "Frontiers of Life Sciences in Human Welfare". (Resource person & Invited Lecture)	P.G and Research Department of Biochemistry, J. J. College of Arts And Science (Autonomous), Pudukkottai, Tamil Nadu.	16.09.2022
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## Recent Publications

1. Chandrasekaran, M., Paramasivan, M., & **Jesudass Joseph Sahayarayan**. (2022). Microbial Volatile Organic Compounds: An Alternative for Chemical Fertilizers in Sustainable Agriculture Development. *Microorganisms*, 11(1), 42. MDPI AG, (Impact Factor: 4.926).
2. Karthik, S., Sathish, S., **Jesudass Joseph Sahayarayan**, & Manickavasagam, M. (2022). Meta-topolin enhances regeneration and Agrobacterium-mediated genetic transformation in radish (*Raphanus sativus* L.). *In Vitro Cellular & Developmental Biology-Plant*, 1-10, (Impact Factor: 2.347).
3. **Jesudass Joseph Sahayarayan**, Rajangam Udayakumar, Muthukrishnan Arun, Andy Ganapathi, Mona S. Alwahibi, Norah Salim Aldosari, Abubaker M.A. Morgan, "Effect of different *Agrobacterium rhizogenes* strains for *in-vitro* hairy root induction, total phenolic, flavonoids contents, antibacterial and antioxidant activity of (*Cucumis anguria* L.)", *Saudi Journal of Biological Sciences*, 2020, (Impact Factor: 4.219).
4. **Jesudass Joseph Sahayarayan**, Kulanthaivel Soundar Rajan, Ramasamy Vidhyavathi, Mutharasappan Nachiappan, Dhamodharan Prabhu, Saleh Alfarraj, Selvaraj Arokiyaraj, Amalorpavanaden, NicholasDaniel, "Identification of potential drug target in malarial disease using molecular docking analysis", *Saudi Journal of Biological Sciences*, 2020, (Impact Factor: 4.219).
5. **Jesudass Joseph Sahayarayan**, Kulanthaivel Soundar Rajan, Ramasamy Vidhyavathi, Mutharasappan Nachiappan, Dhamodharan Prabhu, "In-silico protein-ligand docking studies against the estrogen protein of breast cancer using pharmacophore based virtual screening approaches", *Saudi Journal of Biological Sciences*, 2020, (Impact Factor: 4.219).
6. Sukanya Panikar, Gunasekaran Shobaa, Muthukrishnan Arun, **Jesudass Joseph Sahayarayan**, Usha Raja Nanthini, Arunachalam Chinnathambi, Sulaiman A. Alharbi, Omaima Nasiff, Hak-Jae King, "Essential oils as an effective alternative for the treatment of COVID-19: Molecular interaction analysis of protease (Mpro) with pharmacokinetics and toxicological properties", *Journal of Infection and Public Health*, 2021, (Impact Factor: 3.718).

## Book chapters:

1. **Jesudass Joseph Sahayarayan**, Enogochitra, A. and Chandrasekaran, M. (2021). **Basic Concepts in Proteomics and Applications**, In Computation in Bioinformatics. <https://doi.org/10.1002/9781119654803.ch14>.