

Malathi Srinivasan, Ph. D. Life Sciences

Senior Principal Scientist, Dept. of Lipid Science,
Central Food Technological Research Institute
Mysore 570020
E-mail: m.srinivasan@cftri.res.in
malathi.srinivasan@gmail.com
Ph. : +91-8971489936

Research Experience

March 2018 to date: Senior Principal Scientist & Professor, AcSIR (CSIR),
Co-ordinator, Dept of Lipid Science, CFTRI, Mysore

Feb 2016 - March 2018: Principal Scientist and Associate Professor, AcSIR (CSIR),
Dept of Lipid Science, Co-ordinator, Short term Courses,
CFTRI, Mysore

Aug 2015 – Feb 2016: Principal Scientist, Associate Professor, AcSIR, CSIR-
CIMAP Resource Center, Bangalore

Nov 2012- July 2015: Principal Scientist, Associate Professor, AcSIR and
Principal Investigator of CSIR-Lipidomic Center/ CFTRI,
and Head, CFTRI Resource center, Bangalore

Mar 2010 – Nov 2012: Principal Scientist (Life Sciences and Intellectual Property),
Associate Professor, AcSIR & Head, CSIR-CIMAP
Research Center, Bangalore

July 2007- Jan 2010: Research Scientist/ Principal Investigator, Biochemical
Sciences & Engineering/ Central Research &
Development, DuPont Knowledge Center, E I DuPont India
Pvt Ltd., Hyderabad

Oct 2007 – Dec 2007: Trainee scientist at the Experimental Station, E I DuPont
de Nemours Company Ltd, Wilmington, DE, USA

2006 – 2007: Visiting Scientist, Department of Biochemistry, University
of Iowa, Carver College of Medicine, Iowa City, USA

2004 – 2006: Senior Scientist, Drug Discovery, at Jubilant Biosys
Ltd., Bangalore

2003 – 2004: Trainee Scientist at Gangagen Biotechnologies Pvt Ltd.,
Bangalore

2002 – 2003: DBT- Post Doctoral Fellow, Dept of Biochemistry, IISc,
Bangalore

1999 – 2001: CSIR- Senior Research Fellow

1996 – 1999: DBT- JRF

1995 - 1996: MS Dissertation - Worked on Air Pollution and its effects in
Neyveli Lignite Corporation area, Neyveli, Tamil Nadu

Educational Qualification

Postdoctoral Research Department of Biochemistry, IISc, Bangalore
2002-2003
Project: *Characterization of a diacylglycerol-generating
lipase from rice bran*. Supervisor: Prof. Ram Rajasekharan

Ph. D (Life Sciences) CAS in Botany, University of Madras

1996-2001	Project: <i>Ectomycorrhizal associations of Pisolithus tinctorius with Eucalyptus spp.</i> Supervisor: Late Prof. K. Natarajan
M.Sc (Life Sciences) 1994-1996	Sri Avinashilingam Deemed University, Coimbatore
B. Sc (Botany), Hons. 1991-1994	Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam, Puttaparthi

Awards & Achievements

- II Place for **Best Technology presentation** on National Technology Day, CSIR-CFTRI, 2017
- Team award for **Best Societal Contribution** on CSIR-CFTRI Foundation Day, 2015
- **DuPont BCS&E Catalyst award** – at the DuPont global level by DuPont ExSta, Wilmington, Delaware, USA
- **Jubilant Biosys Certificate of appreciation** by Eli Lilly, Indianapolis, USA
- **Post Doctoral fellowship by DBT**, Govt. of India through DBT-PDF national selection
- **Senior Research Fellowship by CSIR**, Govt. of India through national selection
- **Junior Research Fellowship by DBT**, Govt. of India
- **Passed the State Level Education Test (SLET), Tamil Nadu**
- **Passed the online certificate course on Intellectual Property Rights** conducted by **WIPO**
- **Selected for PhD at the Cambridge University**, UK by the Nehru- Cambridge trust
- **Gold Medal in M.Sc.** for University 1st Rank
- **Gold Medal in B.Sc.** for University 1st Rank

Professional Memberships

- **Life member of Society of Biological Chemists (I)**

Editorial Boards/ Journals/ Funding agencies

- Reviewer for Journal of Food Process Engineering
- Reviewer for Journal of Food Science and Technology
- Reviewer for Scientific Reports
- International Science Reviewer for the Russian Science Foundation
- Reviewer for BIRAC, DBT, Gol.

Students Guided from 2012:

- Ph.D. – 5 awarded
- MSc – 10 awarded

Research Publications

1. Bhat, A, Ray, B, Mahalakshmi, AM, Tuladhar, S, Nandakumar DN, **Srinivasan, M**, Essa, MM, Chidambaram, SC, Guillemain, GJ, Sakharkar, MK. (2020) Phosphodiesterase 4 enzymes as a novel target in neurological disorders.

2. **Srinivasan, M** and Rajasekharan, R. (2020). Insights into yeast phospholipid trafficking. In: Analysis of membrane Lipids. Ed. Rajendra Prasad and Ashutosh Singh. Pp. 41-58. Springer. ISSN 1949-2448 ISSN 1949-2456 (electronic) Springer Protocols Handbooks <https://doi.org/10.1007/978-1-0716-0631-5>
3. Antonisamy, WJ, Chidambaram, R, **Srinivasan, M** and Nachiappan, V. (2019). Crosstalk between protein N-glycosylation and lipid metabolism in *Saccharomyces cerevisiae*. **Sci. Rep.** 9:14485 | <https://doi.org/10.1038/s41598-019-51054-7> (IF – 4.525)
4. L.A. Nadtochii¹, D.V. Kuznetcova¹, A.V. Proskura, A.D. Apalko, V.V. Nazarova and **M. Srinivasan** (2019). Investigation of various factors on the germination of chia seeds sprouts (*Salvia hispanica* L.) **Agronomy Research** 17(S2), 1390–1400, <https://doi.org/10.15159/AR.19.128> (IF= 0,24)
5. Jahagirdar, A., **Srinivasan, M** and Rajasekharan,R. (2018) Sesaminol diglucoside, a water-soluble lignin from sesame seeds induces brown fat thermogenesis in mice, November 2018, **Biochem Biophys Res Commun.** DOI: 10.1016/j.bbrc.2018.10.195 (IF= 2.56)
6. Proskura A. V., Muradova M. B., Kuznetcova D. V., Nadtochii L. A., Struzhkova E. A., **Srinivasan M.** (2018) Investigation of the moisture regime during the germination of chia seeds (*Salvia hispanica* L.) In: Scientific journal of NIU ITMO University, Saint Petersburg, Russia. *The series of "Processes and equipment of food production. – 2018. - no 2.- p. 27-33.*
7. Venkateshwari, V., Vijayakumar, A., Vijayakumar, A.K., Reddy, L.P.A, **Srinivasan, M** and Rajasekharan, R (2018) Leaf lipidome and transcriptome profiling of *Portulaca oleracea*: Characterization of lysophosphatidylcholine acyltransferase. **Planta** <https://doi.org/10.1007/s00425-018-2908-8> (IF =3.36)
8. Rao MJ, **Srinivasan M** and Rajasekharan R. (2018) Cell size is regulated by phospholipids and not by storage lipids in *Saccharomyces cerevisiae*. **Curr Genet.** Mar 13. Doi: 10.1007/s00294-018-0821-0 (IF =3.76)
9. Sreedhar, RV., Prasad, P., Reddy, LPA, Rajasekharan, R and **Srinivasan, M** (2017) Unravelling a stearidonic acid-rich triacylglycerol biosynthetic pathway in the developing seeds of *Buglossoides arvensis*: A transcriptomic landscape. (Nature Publishing Group) **Sci Rep.** 7, Article No. 10473 (IF = 5.2)
10. Arya, M., **Srinivasan, M.**, and Rajasekharan, R (2017) Human alpha beta hydrolase domain containing protein 11 and its yeast homolog are lipid hydrolases. **Biochem Biophys Res Commun.** 487(4): 875-880 (IF= 2.56)
11. Kanagavijayan, D., R. Rajasekharan, and **M. Srinivasan** (2016) Yeast MRX deletions have short chronological life span and more triacylglycerols. **FEMS Yeast Res.** 16 (1), pii: fov109. PMID: 26678749. (IF= 2.5)
12. R V Sreedhar, Kumari P, Rupwate SD, Rajasekharan R and **Srinivasan M** (2015), Exploring Triacylglycerol Biosynthetic Pathway in Developing Seeds of Chia (*Salvia hispanica* L.): A Transcriptomic Approach, **PLoS ONE**, Apr

13;10(4):e0123580 (IF = 4.4)

13. Varthini, LV, Selvaraju, K, **Srinivasan M** and Nachiappan, V (2014). *Rog1* encodes a monoacylglycerol lipase in *Saccharomyces cerevisiae*. **FEBS Lett.** <http://dx.doi.org/10/1016/j.febslet.2014.11.019> (IF = 3.5)
14. K Natarajan and **Malathi Srinivasan** (2009) Production of Indole Acetic acid by Ectomycorrhizal fungi, Chapter 11. *In Frontiers in Fungal Ecology, Diversity and Metabolites* (Ed.) K R Sridhar, IK International Pvt. Ltd. ISBN 81-89866-91-4, p 352.
15. **Srinivasan M**, Nachiappan V, Rajasekharan R (2006) Potential application of urea-derived herbicides as cytokinins in plant tissue culture **J Biosci** 31: 599–605 (IF = 1.4).
16. Rajakumari S*, **Srinivasan M***, Rajasekharan R (2006) Spectrophotometric method for quantitative determination of nonionic, ionic and zwitterionic detergents. **J Biochem Biophys Method** 68: 133-137. (*- equal contribution) (IF = 1.8)
17. Natarajan K, **Srinivasan M** (2003) The role of ectomycorrhizal fungi in bioremediation of heavy metals. *In Biodiversity of fungi: their role in human life* (Eds.) S K Deshmukh and M K Rai, Oxford & IBH Publishing Co. Pvt. Ltd. Pp. 251 – 266.
18. Kumaresan V, **Srinivasan M** (2002) *Heliocephala natarajanii* sp. Nov. From India. **Cryptogamie Mycologie** 23: 329 – 333 (This was a novel fungal species identified and named after my Supervisor Late Prof.K. Natarajan) (IF = 1.5)
19. **Srinivasan M**, Natarajan K, Nagarajan G (2000) Growth optimization of an ectomycorrhizal fungus with respect to pH and temperature in vitro, using design of experiments. **Bioprocess Engineering** 22: 267 – 273 (IF = 1.9)
20. **Srinivasan M**, Sukumar S (1998) Effect of air pollutants on flora and human population in the Neyveli Lignite Corporation area. **Proc Acad Environ Biol** 7: 39-43.
21. **Srinivasan M**, Sukumar S (1997) Ambient air quality in the area of Neyveli Lignite Corporation, Tamil Nadu, India: A case study. **Int J Env Educ Inf** 16 (a Salford Univ., UK Publication)

Technical Papers:

1. Rajasekharan, R., **Srinivasan, M.** and Sreedhar, RV. New oil seed varieties for cultivation, 2015. In Compendium on AGRI-BUSINESS, CSIR-CFTRI, Mysore.
2. Rajasekharan, R., **Srinivasan, M.**, Ramesh Kumar, R., Sreedhar, R.V. and Reddy L.P.A. Super food grain crop for cultivation, 2015. In Compendium on AGRI-BUSINESS, CSIR-CFTRI, Mysore.

International Conferences/Symposia attended

1. Jahnavi K, Bhojaraj, S., Bishir, M., Babu, CS and Srinivasan, M. A study on the effects of Krill oil on autophagy-lysosomal functions and amyloid- β clearance in scopolamine intoxicated mice brains. International Conference on Autophagy and Lysosomes held at the Indian Institute of Science, **Bangalore**, January 16-18. 2020.
2. Venkateshwari, V., Srinivasan, M. and Rajasekharan, R. Leaf omega-3 fatty acids – a sustainable solution to the global omega-3 deficiency. Indo- Finnish Workshop on Nutri-concept: Innovative Food concepts and technologies for Global Nutrition and Business held at CFTRI, **Mysore**, May 15-16, 2018.
3. Kanagavijayan D, Srinivasan, M. and Rajasekharan, R. Aging yeast cells are fat! March 28- April 1, 2015 Experimental Biology Annual Meeting, Boston, MA, **USA**. (Abstract chosen for ASBMB Graduate/ Postdoctoral Travel Award). Published in The FASEB Journal, April 2015:vol. 29 (1 Suppl.) 715.47
4. Poster at the 5th International Singapore Lipids Symposium held at **Singapore**, March 18-21, 2014
3. Presented a poster “Adaptation of chia (*Salvia hispanica*) in India: Looking for an omega 3 rich variety” at the Gordon Research Conference on Plant Lipids held at Galveston, Texas, **USA**, Jan 27-Feb 1, 2013
5. Presented a paper at the University of Malaya, **Malaysia**, towards signing of an MoU between the University of Malaya and CSIR, India in Aug 2011.
6. Presented a poster at the 15th Annual BIOCATS “Biopharmaceuticals and Industrial Biotechnology: From Gene Expression to Bioprocessing”, Iowa City, Iowa, **USA**, October 2006.
7. Presented a paper on diacylglycerol generating lipase at the I Eurofed lipid Conference, Aachen, **Germany**, September 2003 ([European Journal of Lipid Science and Technology Volume 105, Issue 12](#) , Pages 784 – 792)
8. Presented a poster at the III ICOM (International Conference on Mycorrhiza), **Australia**, August 2001.
9. Presented a poster at the “International Mycological Conference”, Madras, **India**, January 2000.
10. Presented a paper at the “International Conference on Conservation of Natural resources”, Trivandrum, **India**, November 1999.
11. Presented a paper at the “International Conference on forest management”, Coimbatore, **India**, November 1998.

ONGOING RESEARCH PROJECTS			
Title of Project	Source of Funds	Amount	Duration (from – to --)
Alpha linolenic acid as a nutraceutical for cognition enhancement	CSIR Nutraceutical Mission	Rs 41.96 Lakhs	Aug 2018 to March 2020
Deciphering the mode of action of a sleep inducing seed oil – a potent and safe alternate to sleeping pills	DST-SERB	Rs 35.1 Lakhs	Nov 2019 to Oct 2022

RESEARCH PROJECTS COMPLETED DURING THE LAST THREE YEARS

Title of Project	Source of Funds	Amount	Duration (from – to --)
Lipidomic Center (Facility Creation)	CSIR	Rs 22.6 Crores	2012-2017
Fast Track Translational Project on DAG – an anti-obesity oil	CSIR	Rs 1.45 Crores	2016-2018