



CURRICULUM VITAE

Dr. P.S. SUDHAKAR GANDHI

Assistant professor

Department of Biotechnology

UCE – BIT Campus, Tiruchirappalli 620 024

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➤ Research Area:

Animal reproductive biology

➤ Educational Qualifications:

Qualification	College/University	Year of completion
Ph.D. (Plant Science)	University of Madras	2003
M.Phil.	-	-
PG (M.Sc., Plant Science)	University of Madras	1994
UG (B.Sc., Botany)	St. Josph's College (autnomous)/ Bharathidasan University	1992
Others	-	-

Experience: (chronological order)

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
Institute of Biological Sciences, National Taiwan University (NTU), Taiwan (ROC)	Post-doctoral Fellow	2005	2009	4 years
Institute of molecular microbiology and genetics, University of Louis Pasteur	Post-doctoral Fellow	2003	2004	1 year

(ULP), Strasbourg, France				
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➤ Awards / Honours Received:

- CSIR Senior Research Fellowship (2001-2003)
- ICFRE Junior Research Fellowship (1998-2000)
- Qualified the laboratory bio-safety and radiation safety training examinations conducted by the Environmental Protection and Occupational Safety Health Center (EPOSH), at the National Taiwan University, Taipei, Taiwan (Dec. 2008).

➤ Additional / Academic Responsibilities at University:

- Programme coordinator for B.Tech-Biotechnology, University college of Engineering,BIT, Anna University, Tiruchirappalli
- Programme coordinator for M.Tech-Biotechnology, University college of Engineering,BIT, Anna University, Tiruchirappalli
- Coordinator for departmental NBA activities
- Sports coordinator of University college of Engineering, BIT, Anna University, Tiruchirappalli

➤ Membership of Scientific and Professional Societies:

- Life member, Indian Science congress (Membership No.: L15856)
- Life member, the Indian Society for Technical Education (Membership No.: LM112763)

➤ Fellowships and Grants received:

- Structural Exploration of Recombinant Mouse Seminal Vesicle Spink-3 Receptor on Sperm Acrosome, DBT, total cost Rs.29,87,000/- (2013-2016)
- Mouse Seminal Vesicle Sulfhydryl Oxidase (SOx): Cloning and Expression of Recombinant Enzyme to Identify Its Cross Linking Substrate among Seminal Vesicle Proteins, DST, total cost Rs. 34,70,000/- (2013-2016)
- Investigating the vital role of mouse seminal vesicle sulfhydryl oxidase (Sox) on sperm physiology, CTDT, Anna University, Chennai, total cost Rs. 25,000/- (July 2019 to December 2019)

➤ Influence of mouse seminal vesicle Sulphydryl oxidase on sperm cells in the female reproductive tract, ICMR, New Delhi, total cost Rs. 10,00,000/-(15.06.2019 to 14.04.2021)

➤ Completed PG/UG Projects:

a. Number of PG Projects Completed: 14

b. Number of UG Project Completed: 30

➤ Research Guidance (M.S/Ph.D.) (Completed):

Sl. No	Name of the scholar	Title of the thesis	Year of registration	Date of viva voce
1.	Rubhadevi B	Physiological Role Of Mouse Seminal Vesicle Sulphydryl Oxidase In Reproduction	June 2014	20.10.2021
2.	Shiyam Sundar A R	Identification Of Recombinant Mouse Seminal Vesicle Spink3 Receptor On Sperm Acrosome	Jan 2015	22.03.2022
3.	Nandhine R	Tannic Acid, A Dietary Polyphenol Attenuates Experimentally - Induced pulmonary Fibrosis And Allergic Airway Inflammation In Mice Via Multitargeting Activity	Jan 2019	01.06.2022

➤ Research Guidance (M.S/Ph.D.) (Ongoing):

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
-	-	-	-	-

➤ **Publications:**

- Rubhadevi Balu¹, Shiyam Sundar Ramachandran, Amala Mathimaran, Jeyakanthan Jeyaraman, and Sudhakar Gandhi Paramasivam. 2022. Functional significance of mouse seminal vesicle sulfhydryl oxidase on sperm capacitation *in vitro*. *Molecular Human Reproduction*. 28(9) : 1-19 **IF: 4.00**
- Nandhine Rajasekar, Ayyanar Sivanantham Amrita Kar, Sramana Mukhopadhyay, Santanu Kar Mahapatra , Sudhakar Gandhi Paramasivam, Subbiah Rajasekaran. 2021. Anti-asthmatic effects of tannic acid from Chinese natural gall nuts in a mouse model of allergic asthma. *International Immunopharmacology* (98): 01-09 **IF: 5.7**
- Shiyam Sundar Ramachandran, Rubhadevi Balu, Ravikumar Vilwanathan, Jeyakanthan Jeyaraman, and Sudhakar Gandhi Paramasivam. 2021. A mouse testis serine protease, TESP1, as the potential SPINK3 receptor protein on mouse sperm acrosome. *Molecular Human Reproduction*. 27 (10): 1-17 **IF: 4.5**
- Nandhine Rajasekar, Ayyanar Sivanantham, Amrita Kar, Santanu Kar Mahapatra, Rajesh Ahirwar, Rajesh K. Thimmulappa, Sudhakar Gandhi Paramasivam, Rajasekaran Subbiah. 2020. Tannic acid alleviates experimental pulmonary fibrosis in mice by inhibiting inflammatory response and fibrotic process. *Inflammopharmacology*. 28(5): 1301-1314. **IF: 5.09**
- Rubhadevi B, Shiyam Sundar R, Sudhakar Gandhi P S. 2019. Evidence for mouse sulfhydryl oxidase assisted cross-linking of major seminal vesicle proteins. *J. Mol. Reprod. Dev*. 86 (11):1682-1693 **IF:2.6**
- Subbiah R, Pattarayan D, P. Rajaguru, P.S. Sudhakar Gandhi, Thimmulappa R.K. 2016. MicroRNA Regulation of Acute Lung Injury and Acute Respiratory Distress Syndrome. *J Cell Physiol*. (10) 2097-2106 **IF:6.5**
- Samynathan Ramkumar, Perisamy Suresh kumar, Gandhi Sudhakar, J. Anitha, Sanmugam Geetha, Padmanabhan Mohankumar, Velliyur Kanniappan Gopalakrishnan. 2016. Biochemical and molecular analysis of *Camellia sinensis* (L.) O. Kuntze tea from the selected p/11/15 clone *J. Gen. Eng . Biotechn*. 14(1)69 -74. **IF:0.6**
- Rajasekaran Subbiah, Rajaguru P, Sudhakar Gandhi P.S. 2015. MicroRNAs as potential targets for progressive pulmonary fibrosis. *Frontiers in Pharmacology*. 54 (6)1-16 **IF:5.9**

- Samynathan Ramkumar, Palanisamy Chella Perumal, Paramasivam Sudhakar Gandhi, Abul Kalam Azad Mandal, P Mohan kumar, Periasamy Suresh kumar and Velliyyur Kanniyappan Gopalakrishnan. 2015. Computational structure analysis of PPO enzyme from UPASI selected clone of *Camellia sinensis* (L.) O. Kuntze. *J. Young Pharmacists*. 7(2) : 118-121
- Ramkumar Samynathan, Chella Perumal Palanisamy, Sudhakar Gandhi, AbulKalam A. Mandal, Mohankumar Padmanabhan, Suresh kumar Perisamy and Gopalakrishnan Velliyyur Kanniyappan. 2015. Isolation and Characterization of Polyphenol Oxidase From UPASI Selected Clone of *Camellia sinensis* (L.) O. Kuntze. *Indo American Journal of Pharm Research.*:(5) :241-252 **IF:0.85**
- Ronaldo Anuf, Rajesh Ramachandran, Rajaram Krishnasamy, P.S. Sudhakar Gandhi, Sureshkumar Periyasamy. 2014. Antiproliferative effects of plumbago rosea and its purified constituent plumbagin on SK-MEL 28melanoma cell lines. *Pharmacognosy Research* 4(6): 312-319 **IF:1.25**
- Manikandan. K, Selvakumar. K, Bavithra. S, Selvaraj. J, Anne Williams. A, Sudhakar Gandhi. P.S and Arunakaran. J. 2012. Polychlorinated biphenyls exposure alters glucose homeostasis in adult female Wistar rats – Ameliorative role of quercetin. *Int. J. Toxicology and App. Pharmacology*. (4): 57-62.
- Chung-Mao Ou, Jyh-Bing Tang, Mei-Shan Huang, P.S. Sudhakar Gandhi, S.Geetha, Sheng-Hsiang Li and Yee-Hsiung Chen. 2012 The mode of reproductive-derived Spink (serine protease inhibitor Kazal-type) action in the modulation of mammalian sperm activity *Int. J. Androl*. 35(1) : 52-62 **IF : 4.62**
- Huan-Chin Tseng, Jyh-Bing Tang, P. S. Sudhakar Gandhi, Ching-Wei Luo, Chung-Mao Ou, Chia-Jen Tseng, Han-Jia Lin, Yee-Hsiung Chen. 2012. Mutual adaptation between mouse transglutaminase4 and its native substrates in the formation of copulatory plug. *Amino Acids*. (42) : 951-960. **IF : 3.78**
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- Huan-Chin Tseng, Han-Jia Lin, Jyh-Bing Tang, P.S. Sudhakar Gandhi, Wei-Chao Chang and Yee-Hsiung Chen. 2009. Identification of the major TG₄ Cross-linking Sites in the androgen-dependent SVS I exclusively expressed in mouse Seminal Vesicle. *J. CellularBiochemistry*.107 (5) :899-907 **IF:4.48**
- Huan-Chin Tseng, Han-Jia Lin, P.S. Sudhakar Gandhi, Chia-Yih Wang, and Yee-Hsiung Chen. 2008. Purification and identification of transglutaminase from mouse coagulating gland and its cross-linking activity among seminal vesicle secretion proteins. *J Chromatography B*. 876(2) :198-202. **IF : 2.5**

- Yee-Hsiung Chen, P.S. Sudhakar Gandhi, Chung-Moo Ou, Mei-Shan Huang. 2008. The reproductive role of P12 from male accessory sexual glands. *J. Peptide Science* (14): 19-19 **IF : 2.0**
- Elangovan N., P.S. Sudhakar Gandhi and P.T. Kalaichelvan. 2003. Utilization of lignin related phenolic derivatives by *Flavobacterium* sp. *Asian J. Microbiol. Biotechnol. Environ. Sci.* 5 (2) : 177-182.

a. Books / book chapters:

- B. Anandaraj & P.S. Sudhakar Gandhi (Guest Editors), Special issue on “International Conference on Modern Progress in Biotechnology” Asian Journal of Microbiology, Biotechnology and Environmental Sciences, Volume 17, October 2015, Global Science Publications, India (ISSN: 0972-3005).
- B. Anandaraj & P.S. Sudhakar Gandhi. Abstract book published in International Conference on Modern Progress in Biotechnology 2014. VK Publication (Publisher of Science and Engineering Books – ISBN 819085675-8).

b. International Journals:

c. National Journals:

➤ Patents:

➤ Sponsored Research Projects:

Sl.No	Name of the project	Funding agency	Project value (Rs.)	Duration	Status
1.	Structural Exploration of Recombinant Mouse Seminal Vesicle Spink-3	DBT	Rs.29,87,000/-	2013-2016	Completed

	Receptor on Sperm Acrosome				
2.	Mouse Seminal Vesicle Sulfhydryl Oxidase (SOx): Cloning and Expression of Recombinant Enzyme to Identify Its Cross Linking Substrate among Seminal Vesicle Proteins	DST	34,70,000/-	2013-2016	Completed
3.	Investigating the vital role of mouse seminal vesicle sulfhydryl oxidase (Sox) on sperm physiology	CTDT, Anna University, Chennai	. 25,000/-	July 2019 to December 2019	Completed
4.	Influence of mouse seminal vesicle Sulfhydryl oxidase on sperm cells in the female reproductive tract	ICMR, New Delhi	10,00,000/-	June 2019 to April 2021	Completed

➤ Consultancy Activities:

Sl.No	Name of the work	Role (PI/Co PI)	Agency	Amount	Duration

➤ List of Seminar / Short Term Course /FDP/ Workshop organized:

➤ List of Seminar / Short Term Course /FDP/ Workshop attended:

FDP attended:

- NPTEL-AICTE online Faculty Development Programme on Cellular organization, Division and processes Feb – April 2021. Consolidated score – 55%
- NPTEL-AICTE online Faculty Development Programme on Human Molecular Genetics. Jan-Feb 2021. Consolidated score – 67%
- NPTEL-AICTE online Faculty Development Programme on Cell Culture Technologies. Feb – April 2020. Consolidated score – 77%
- NPTEL-AICTE online Faculty Development Programme on Genetic Engineering: Theory and application. July – October 2019. Consolidated score – 77%
- Faculty development program on "Comprehensive approach of biotechnological applications" organized by Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, 16 to 29 April 2015.
- Staff development program on “Emerging trends in Biotechnology”, Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, August 19-25, 2013.
- Staff development program on “Nanotechnology”, Department of Biotechnology, Vivekanandha College of Engineering for women, Tiruchengode, Tamilnadu, June 1-14, 2011
- Staff development program on “Application of microbial and molecular techniques in biotechnology”, Department of biotechnology, MEPCO SCHLENK Engineering College, Sivakasi, Tamilnadu, May 19 -29, 2010

Workshops Attended:

- TEQIP II sponsored Workshop on "Advances in Biotechnology" organized by Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, 16 & 17 March 2016.
- ISTE-WPLP national workshop on “Accreditation & Autonomy”, held at Kanyakumari from January 06-08, 2014

➤ National / International Conferences organized / Participated:

Conference organized

- TEQIP II sponsored International conference on “Modern Progress in Biotechnology” organized by Department of Biotechnology, Anna University – BIT Campus, Tiruchirappalli, during 9th & 10th October 2014.

International Conferences Attended:

- TEQIP II sponsored International conference on Advances in Biological, Chemical and physical Sciences (ABCPS'2017) jointly organized by the departments of Biotechnology, Chemistry & Physics, held at Anna University – BIT Campus during March 13 -15 2017.
- **Sudhakar Gandhi P. S.**, Morgane Thomas-Chollier, Niamh Gilmartin, Marco Pagni and Stéphane Vuilleumier (2004). Bio informatics-informed exploration of the functions of bacterial glutathione S-transferases. Proceedings of the *EMBO (European Molecular Biology Organization) Conference on molecular Microbiology – Exploring Prokaryotic Diversity*. European Molecular Biology Laboratory (EMBL), Heidelberg, Germany.
- Elangovan. N., **P.S. Sudhakar Gandhi** and P.T. Kalaichelvan (2001). A comparative study on the potential of free cells and immobilized cells of *Flavobacterium* sp. in the treatment of tannery effluent. Proceedings of the *International Conference on New Horizons in Biotechnology. Trivandrum, India*.

National Conferences Attended:

- TEQIP II sponsored national conference on “Green Engineering and Technologies for Sustainable Future (NCGET-2014) organized by Department of Petrochemical Technology, Anna University – BIT Campus, Tiruchirappalli, during 5th & 6th December 2014
- Participated in the National symposium on ecofriendly approaches for plant disease management along with the 53rd annual meeting of IPS and the 12th annual meeting of INSOPP organized by the Centre for Advanced Studies in Botany, University of Madras, Chennai – 600 025 in January 2001.
- Elangovan. N. **P.S. Sudhakar Gandhi** and P.T. Kalaichelvan (2000). Bioremediation of paper mill effluent by *Flavobacterium* sp. Proceedings of the *National Symposium on Basic and Applied aspects of Plant and Microbial Biotechnology. Pune, Maharashtra, India*.
- **Sudhakar Gandhi P.S.** and P.T. Kalaichelvan (2000). Degradation of Nitroaromatic compounds (NAC) by *Alcaligenes* sp. strain GK4. Proceedings of the *National Symposium on Microbes in bioremediation for eco-friendly environment in the*

new millennium. Centre for Advanced studies in Botany, University of Madras, Chennai, India.

➤ Professional recognitions: (details like chairperson/member of a committee, reviewer, editor ...etc)

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(A) Chairperson for conferences / Seminar / Technical symposia:

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(B) Guest lectures delivered:

- Delivered a lecture on “Pharmaceutical Impact of herbs in animal models” at St. Joseph’s College (Autonomous), Tiruchirappalli, Tamilnadu, India on 27.10.2021

DECLARATION:

I certify that the information furnished above is correct and true to the best of my knowledge and belief.

Signature of the staff member

Head of the Department

Dean