CURRICULUM VITAE

Prof. N. Senthil Kumar

Professor

Department of Biotechnology

School of Life Science Mizoram University

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Personal Details

Date of Birth:08 - 08 - 1972 Sex: Male Father's Name:Mr. P. Nachimuthu Nationality: Indian

Permanent Address: 10, Krishnaswamy Nagar, T. Kottampatti, Pollachi – 642 002, Coimbatore, TN

Educational Qualifications

Post-Doctoral Fellow (PDF): 2006 Sun Yat-sen University, China Doctor of Philosophy (Ph. D.): 1998Bharathiar University, Coimbatore

Thesis Entitled, "Combined effect of Azadirachtin and Nuclear Polyhedrosis Virus on biochemical and molecular profiles of *Helicoverpa armigera*"

M.Sc Zoology 1994Bharathiar University, Coimbatore

B.Sc Zoology 1992University of Madras (Loyola College, Chennai)

High School (10+2)1989Biology, Maths, Physics, Chemistry

Research Interest

Human Disease Genetics, Molecular Phylogenetics, Molecular Markers and Bioinformatics, Chemical /Molecular ecology

Details of Previous Employments:

N	Institute/	Decimal	Duratio	n	O	igth of e in years		
No	University/	Designation	From	То		MD	Whether UG/PG	
1.	Mizoram university		23 July 2012	Till date	06	03		PG
2.	Mizoram University	Associate Professor in Biotechnology	Jan.2010	22 July 2012	02	06	21	PG
3.	Mizoram University	Reader in Biotechnology	26 Jan 2007	Dec. 2009	03			PG
	N.G.M, Karpagam and PGP College College	Lecturer in Biotechnology	June 2000	Feb. 2005	04			PG

Administrative Experience:

				Duration		Whether	
No	Post Held	Organizati on	Nature of	- Bui			overlapping with Teaching/Res ear
			Responsibility	Y	M	D	ch Experience if any
1	Head of the Department	Mizoram University	Establishing Biotech Dept.; Introduction of M.Sc/M.Phil/Ph.D courses; Organization of training/workshop	05	05		Yes
2	Coordinator – (DBT- BIF)	Mizoram University	Established the bioinformatics lab; facilitating research	03	03		Yes
3	Coordinator – (DBT- State Biotech Hub)	Mizoram University	Established the bioinformatics lab; facilitating research	01			Yes
4	Coordinator - NER DBT e- library consortium	Mizoram University	Established the e- library resources for research	02			Yes
5	Head of the Department	N.G.M College, Pollachi	Establishing Biotech Dept.; Introduction of M.Sc course	03			Yes
Total				14	08		

Overseas Experience:

Name	Organization	Year	Purpose		
DBT Overseas Associateship	Natural History Museum, London	Jan-March 2013	Next Generation sequencing method analysis		
FRES	University of Plymouth, UK	2008 Sept. onwards	Fellow of Royal Entomological Society, London Annual meeting of the Royal Entomological Society, UK – "Ento 08"		
DST Travel Fellowship	University of Durban, South Africa	July 05 – 12, 2008	XXIII International Congress of Entomology		
Funded delegate	Univ. of Queensland.	Aug.15 – 21, 2004	To attend and present paper at the XXII ICE, Australia		
Spatial Ecology program	Univ. of Helsinki, Finland	July 2002	To work with the Metapopulation group, Department of Ecology and Systematics, University of Helsinki.		
International Travel Grant (twice)	Univ. of Peradeniya, Sri Lanka	Nov. 1998 & 1999	To present research paperin theX and XIAnnual Congress at PGIA.		

Overseas Collaborations: National History Museum, UK

Awards & Distinctions

National Academic Assignments						
Name	Organization	Year	Purpose			
Summer	INCA Now Dollai	Jan- Feb	DNA Parading with Dr. Provon Karanth at			
	INSA, New Delhi		DNA Barcoding - with Dr. Praveen Karanth at			
Research Fellow		2010	CES, IISc, Bangalore.			
Summer	Indian Academy of	June -July	Wasp Behaviour - with Prof.			
Research Fellow	Science	2004	RaghavendraGadagkar, CES, IISc,			
			Bangalore, India.			
CSIR- SRF	CSIR, New Delhi	1996	Development of resistance by H. armigera to			
			azadirachtin.			

Professional Memberships

Biotech Consortium India Limited (BCIL), New Delhi

• Indian Science Congress Association, New Delhi

• Life Member of Society for Biosafety, Bhopal

Academic Achievements

Publications and Lectures delivered

Research papers : 91 Proceedings : 10

Books : 03 Articles : 08

Invited talks : 35

Contributed oral presentations : 23

Poster presentations : 03
Trainings attended: 12

Database/ software developed :

- 1. A Database on Snakes of Mizoram was developed using PHP, Apache and MySql Server (Web -Server technology).
- 2. PROT-PROP: A Java- application to predict the subcellular location of a protein based on physiochemical properties.
- 3. GC-Graphing: A Java-application to plot GC contents of Intergenic and Intragenic regions of genome www.mzu.edu.in/schools/biotechnology.html

Research Papers Reviewed for Journals:

- 1.Gene
- 2.PLoS ONE
- 3.frontiers in Physiology
- 4. Electrophoresis
- 5. DNA and Cell Biology
- 6. Scientific Reports

Details of Professional Trainings

- 1. Post Graduate Diploma in Computer Applications (PGDCA)-: 1999 Bharathiar University, Coimbatore
- 2.
- 3.

Seminar/Symposia/Workshop Organized

Please refer to DBT – Bioinformatics Infrastructural Facility and Advanced State Biotech Hub activities

https://www.mzu.edu.in/index.php/facilities/dbt-state-biotech-hub-bioinformatics-centre

Research Projects

Research Project Agency & Ar	nount Duration	
Detection of Chromosomal and mitochondrial mutations in a cohort of Gastric Cancer patients from Mizoram, Northeas India - By using Deep and Sanger sequencing methods		2016 - 2019
Mitochondrial and nuclear gene mutations/polymorphisms and their association with Gastric Cancer in Mizoram and West Bengal	Twining - DBT, New Delhi Rs. 77.28 lakhs	2013 - 2016
Investigation of the cytotoxic morphological and biochemical changes of HeLa (Human cervical carcinoma) and HepG2 (Human hepato carcinoma) cancer cell lines using Foldscope microscope	Rs. 08 lakhs	2018 - 2019
Barcoding and Diversity Analysis of Earthworms of Northeast India	DBT, New Delhi Rs. 29 lakhs	2017 - 2020
Investigations on anticancer property of Pierisin from Pierid butterflies of Northeast India	Twining - DBT, New Delhi Rs. 29 lakhs	2012 - 2015

Screening for Insecticidal susceptibility and molecular characterization of <i>Anopheles minimus</i> and <i>A. dirus</i> using RAPD-PCR	CSIR, New Delhi Rs.15 lakhs	2009 – 2012
Diversity Assessment and RAPD-PCR Characterization of Nymphalidae species of Butterflies and their Implications in Phylogeny and Conservation	DST- Fast Track Young Scientist, New Delhi. Rs. 15 lakhs	2009 – 2012

International Projects

National Projects

Projects – Establishment	Agency & Amount Duration	
Coordinator: State Biotech Hub	DBT, New Delhi	2011 onwards
Coordinator: Bioinformatics Infrastructure Facilit	DBT-BTISNet, New Delhi Rs. 100 lakhs	June 2008 onwards
Coordinator: Digital e-library consortium (DeLCC	DN) DBT, New Delhi Rs. 100 lakhs	2010 onwards
Coordinator: Online access facility for library respectively. Secondary and Higher Secondary Schools (OAFI	· ·	2010 onwards

Research & Teaching Experience

Research:18Years

Teaching: UG 02 Years

PG+Ph.D. 18Years

Total Number of Publications

i) Research Papers:91

ii) Review Papers:

iii) Books/Book Chapters: 3

iv) Articles in News Papers/Magazines etc.: 08

Citation Details (as on September 2018)

Google Scholar Scopus

h index 1510

i10 index 27......

Total Citations 1157401

Cumulative Impact factor 155.701

Link for Google Scolar: Senthil Kumar Nachimuthu-Google Scholar

Link for ResearchGate or Scopus: Scopus ID: 6507282654

Research Guidance:

i) **Ph.D.** 10 Awarded

7 Registered

ii) M.Phil7Awarded

4 Registered

List of Ph.D./M.Phil Awarded:

i) Ph.D. Guided:

- 1. Molecular characterization of *Bt* isolates from Mizoram soils and their cry gene toxicity **Zothansanga**, **Biotechnology**.
- 2. Molecular Phylogeny of *Anopheline* mosquito species of Mizoram and characterization of their resistant genes **Rita Zomuanpuii**, **Biotechnology**.
- 3. Comparative phylogeny of few Nymphalid butterfly species distributed across North East India using mitochondrial and nuclear marker genes **Catherine VanlaIruati, Biotechnology**
- 4. Genetic Divergence and Phylogenetic relationship of Honey bee population in Mizoram Liansangmawii Chhakchhuak, Biotechnology.
- 5. Biochemical and Molecular analysis of host plant interaction in *Bombyx mori* L strains- **Ruth** Lalfelpuii, Biotechnology.
- 6. Antioxidant potential of few selected Medicinal Plants of Mizoram and Investigation of their anti-ulcer activity in Induced Albino Rats- H. Lallawmawma, Biotechnology
- 7. Studies on bacterial diversity in the natural forest and jhum soils of Mizoram: a metagenomic approach- **Surajit De Mandal, Biotechnology**
- 8. Analysis of mutations in key trigger genes associated with gastric cancer from subtyping to early prognostic assessment- **Souvik Ghatak**, **Biotechnology**
- 9. Characterization of the Cytotoxic Protein Pierisin from Pierid butterflies- **S.Sarathbabu**, **Biotechnology**.
- 10. Evaluation of Bioactive Potential and Phylogenetic Analysis of Selected Species of Family Asteraceae- **Garima Singh, Biotechnology**

ii) Ph.D Guiding

- 1. Prevalence of *Helicobacter pylori* genotypes and their association with Interleukin-1- Beta in patients with gastritis from Aizawl, Mizoram- **Subhajit Mukherjee**, **Biotechnology**.
- 2. Genetic Perspectives of Type 2 Diabetes Susceptibility in Mizo Population, Mizoram, Northeast India- Freda Lalrohlui, Biotechnology.
- 3. Characterization of clinically significant mutations associated with Breast Cancer in Mizo population- **Doris Zodinpuii**, **Biotechnology**.
- 4. Molecular typing, biofilm formation and antibiotic sensitivity assay of *Listeria spp.* isolated from foods of animal origin- **DipikaMalakar**, **Biotechnology**.
- 5. Identification of Recurrent Genomic Alterations in Gastric Adenocarcinoma in Mizo population-Payel Chakraborty, Biotechnology.
- 6. Characterization of *Mycobacterium tuberculosis* associated with Pulmonary Tuberculosis in Mizoram using Genomic Approaches- **Christine Vanlalbiakdiki Sailo, Biotechnology**.
- 7. Studies on the germline mutations, cancer stem cell and epithelial mesenchymal transition markers in the aetiology of colorectal cancer- **LitikaVermani**, **Biotechnology**.

III). M.Phil. Guided

- Analysis of phylogenetic relationship among species of Danainae butterflies (Lepidoptera: Nymphalidae) using nuclear and mitochondrial gene markers – Lalhlimpuia Pachuau, Biotechnology.
- 2. Molecular phylogenetic analysis of wild silk moth species of Mizoram as revealed by mitochondrial and nuclear gene markers **Ruth Lalfelpuii**, **Biotechnology**.

- 3. Analyses of mutation in cell cycle genes associated with gastric cancer in Mizo population Ravi Prakash Yadav, Biotechnology.
- 4. Study on the prevalence of High-Risk Human Papillomavirus genotypes using PCR and Hybrid Capture 2 Assay among Mizo women with cervicitis, pre-neoplastic lesions (CIN) and cervical cancer- Christine Vanlalbiakdiki Sailo, Biotechnology.
- 5. Study of Ataxia-Telangiectasia Mutated (ATM) gene profile in Breast cancer patients among Mizo population- **Indira Sonar**, **Biotechnology**.
- 6. Distribution of Bacterial Population associated with different organs of edible mud crab (*Scylla olivacea*Herbst, 1896) and their antimicrobial potential- **Joanne Zote, Biotechnology.**
- 7. Enumeration of microbial population from fermented fish -S. Samarjit Singh, Biotechnology

III). M.Phil. Guiding

- 1. Association of Gene Mutations to Tuberculosis Susceptibility in relation to epidemiological factors in Mizo population- Mary Vanlalhruaii Tonsing, Biotechnology.
- **2.** Detection of fusion genes and their expression in gastric cancer patients in Mizo population-Ranjan Jyoti Sarma, Biotechnology.
- 3. Mutational screening of key genes in RTK/RAS signaling pathway associated with Pediatric Leukemia in Mizo population- **Andrew Vanlallawma**, **Biotechnology**.

Expert Talk/Chaired Technical Sessions:

Name	Organization	Year	Purpose
Resource Person	Jahangirnagar University, Dhaka, Bangladesh	September 05 - 06 2018	Hands-on training workshop on "DNA Barcoding: Use of Molecular Techniques and Bioinformatics"
Resource Person	Chittagong Veterinary and Animal Sciences University(CVASU), Bangladesh and jointly organized by Bangladesh Barcode of Life (BanglaBOL)	March 04 - 06 2017	Hands-on training workshop on "Molecular tools used for DNA barcoding". Sole Resource person - delivered 6 lectures and 6 Hands-on practical sessions on Molecular techniques and Bioinformatics

Full Details of Published Papers

(A)Book/Book Chapters

Molecular Biology Principles and Methods – A Practical Approach. Pp.1- 215	Practical ManualISBN 81-86535 – 61 –6. Panima Publishers
Microbiology – A Practical Approach. Pp.1- 115	Practical ManualISBN 81-86535 – 61 –6. Panima Publishers
Bioinformatics – A Student Companion. Pp.1-283	Practical Manual ISBN 978-981-10-1857-2. Springer Nature
Biotechnological Potential of ThermophilicActinobacteria Associated With Hot Springs	Book Chapter- New and Future Developments in Microbial Biotechnology and Bioengineering, Page: 155-164

(B) Review Papers

(C) Research Papers

SI.	Publication Titles	Year/ Name of	ISSN/ISBN	Impact
No		the Journal	No	Factor
1.	Metagenomic analysis and the functional profiles of traditional fermented pork fat 'sa-um' of Northeast India	(2018)AMB Express	ISSN: 2191-0855	2.38
2.	Tuibur: tobacco in a bottle—commercial production of tobacco smoke-saturated aqueous concentrate	(2018) Addiction	ISSN: 0965-2140	5.789
3.	Five Years Record on Cancer Incidence from a Diagnostic Centre in Mizoram, Northeast India.	(2018) Cancer Health	ISSN 2573- 9530	

		Disparities		
4.	Phylogenetic affiliation and determination of bioactive compounds of bacterial population associated with organs of mud crab, Scylla olivacea	(2018) Saudi Journal of Biological Sciences	ISSN: 1319-562X	3.138
5.	Traditional fermented fish harbors bacteria with potent probiotic and anticancer properties	(2018) Biocatalysis and agricultural biotechnology	ISSN: 1878-8181	
6.	MicroRNA hsa-miR-324-5p Suppresses H5N1 Virus Replication by Targeting the Viral PB1 and Host CUEDC2	(2018) Journal of virology	ISSN 1098- 5514	4.368
7.	Analyzing plant growth promoting Bacillus sp. and related genera in Mizoram, Indo-Burma biodiversity Hotspot	(2018) Biocatalysis and agricultural biotechnology	ISSN: 1878-8181	
8.	Influence of TP53 gene somatic mutations in Helicobacter pylori infected gastric tumor	(2018) Meta Gene	ISSN: 2214-5400	
9.	Lifestyle chemical carcinogens associated with mutations in cell cycle regulatory genes increases the susceptibility to gastric cancer risk	(2018) Environmental Science and Pollution Research	IISN No: 0944-1344	2.8
10.	Novel AKT1 mutations associated with cell-cycle abnormalities in gastric carcinoma	(2018) Personalized Medicine 15 (2), 79-86	ISSN: 1741-0541	1.010
11.	Collective transcriptomic deregulation of hypertrophic and dilated cardiomyopathy – Importance of fibrotic mechanism in heart failure	(2018) Computational Biology and Chemistry 73, 85–94	ISSN: 1476-9271	1.331
12.	Antimicrobial, antioxidant and probiotics characterization of dominant bacterial isolates from traditional fermented fish of Manipur, North-East India	(2018) Journal of Food Science and Technology, 1-10	ISSN: 0022-1155	1.262
13.	Testicular toxicity and sperm quality following copper exposure in Wistar albino rats: ameliorative potentials of L-carnitine	(2018) Environmental Science and Pollution Research 25 (2), 1837-1862	ISSN: 1614-7499	2.741
14.	Pharmacological potential of Bidenspilosa L. and determination of bioactive compounds using UHPLC-QqQ LIT-MS/MS and GC/MS.	(2017) BMC Complementary and Alternative medicine 17 (1), 492	ISSN: 1472-6882	2.28
15.	Bacterial diversity analysis of Yumthang hot spring, North Sikkim, India by Illumina sequencing.	(2017) <u>7</u> Big Data Analytics <u>2 (1)</u> ,	ISSN: 2058-6345	1.693
16.	Polymorphisms in ADH1B and ALDH2 genes associated with the increased risk of gastric cancer in West Bengal, India.	(2017) BMC cancer <u>17</u> (1), 782	ISSN: 1471-2407	3.362

17.	Prevalence of multi drug resistant enteropathogenic and enteroinvasive <i>Escherichia coli</i> isolated from children with and without diarrhea in Northeast Indian population.	(2017) Annals of clinical microbiology and Antimicrobials 16 (1), 49	ISSN: 1476-0711	1.667
18.	Essential role of HCMV deubiquitinase in promoting oncogenesis by targeting anti-viral innate immune signaling pathways.	(2017) Cell death & disease 8 (10), e3078	ISSN: 2041-4889	5.965
19.	Structural basis to stabilize the domain motion of BARD1-ARD BRCT by CstF50.	(2017) Scientific Reports 7 (1), 3849	ISSN: 2045-2322	4.259
20.	Biosynthesis of silver nanoparticles using <i>Myristica</i> fragrans seed (nutmeg) extract and its antibacterial activity against multidrug-resistant (MDR) Salmonella enterica serovar Typhi isolates.	(2017) Environmental Science and Pollution Research 1-12	ISSN: 1614-7499	2.741
21.	Mitochondrial control region and GSTP1 polymorphism associated with familial urinary bladder cancer in Karbi-Anglong tribe of Assam, Northeast India.	(2017) Egyptian Journal of Medical Human Genetics 18 (1), 99-104	ISSN: 1110-8630	0.89
22.	Antioxidant potential, anti-inflammatory activity and gastroprotective mechanisms of Mallotusroxburghianus (Muell.) against ethanol-induced gastric ulcers in Wistar albino rats.	(2017) Journal of Functional Foods 36, 448-458	ISSN: 1756-4646	3.144
23.	Meta-barcoding in combination with palynological inference is a potent diagnostic marker for honey floral composition.	(2017) AMB Express 7 (1), 132	ISSN: 2191-0855	2.38
24.	Green synthesis of magnetic Fe3O4 nanoparticles using CouroupitaguianensisAubl. fruit extract for their antibacterial and cytotoxicity activities.	(2017) Artificial Cells, Nanomedicine, and Biotechnology 46(3):589-598	ISSN:2169- 1401	5.605
25.	S Ghatak, P Chakraborty, SR Sarkar, B Chowdhury, A Bhaumik, N Senthil Kumar. Novel APC gene mutations associated with protein alteration in diffuse type gastric cancer	(2017) BMC Medical Genetics 18 (1), 61	ISSN: 1471-2350	2.09
26.	S De Mandal, R Chatterjee, NSenthil Kumar Dominant bacterial phyla in caves and their predicted functional roles in C and N cycle	(2017) BMC microbiology 17 (1), 90	ISSN: 1471-2180	2.58
27.	LR Yadav, MN Biswal, MV Hosur, NSenthil Kumar, AK Varma. Structural basis to characterise transactivation domain of BRCA1	(2017) Journal of Biomolecular Structure and Dynamics 35 (1), 1-7	ISSN: 0739- 1102	2.3
28.	Roy, V. K., Peki, V., Devi, M. S., Sanjeev, S., Khusboo, M., Zothansanga, R., and Gurusubramanian, G. Biosterilant effects of <i>Bacillus thuringiensiskurstaki</i> HD-73 extract on male Wistar albino rats.	(2017) Theriogenology, 8 8, 73-83	ISSN: 0093-691X	. 1.83
29.	Ibrahim, K. S., Momin, M. D., Lalrotluanga, R., Rosangliana, D., Ghatak, S., Zothansanga, R., & Gurusubramanian, G. Influence of shifting cultivation practices on soil–plant–beetle interactions.	(2016). Environmental Science and Pollution Research, 23(16),		2.85

		201-229.		
30.	Souvik Ghatak, Ravi Prakash Yadav, Freda Lalrohlui, Payel Chakraborty, SoumeeGhosh, SudakshinaGhosh, Madhusudan Das, Jeremy L. Pautu, John Zohmingthanga, Nachimuthu Senthil Kumar .Xenobiotic Pathway Gene Polymorphisms Associated with Gastric Cancer in High Risk Mizo-Mongoloid Population, Northeast India	(2016) Helicobacter	ISSN: 1523- 5378	4.106
31.	Garima Singh, Ajit K. Passari, Vincent V. Leo, Vineet K. Mishra, Sarathbabu Subbarayan, Brijesh Kumar, Bhim P. Singh, Sunil Kumar, HauzelLalhlenmawia, Vijai K. Gupta, Nachimuthu Senthil Kumar .Evaluation of phenolic content variability, antioxidant, antimicrobial and cytotoxic potential of selected traditional medicinal plants from India	(2016) Frontiers in Plant Science 7:407 DOI: 10.3389/fpls.20 16.00407	ISSN: 1664- 462X	3.95
32.	Sarathbabu Subbarayan, Satheesh Kumar Marimuthu, Nachimuthu Senthil Kumar, Wenqing Zhang, Selvi Subramanian.Characterization and cytotoxic activity of apoptosis-inducing pierisin-5 protein from white cabbage butterfly	(2016) Int. Journal of Biological Macromolecules 87:16–27	ISSN: 0141- 8130	2.858
33.	SoumeeGhosh, SudakshinaGhosh, BiswabandhuBankura, MakhanLalSaha, SuvenduMaji, Souvik Ghatak, Arup Kumar Pattanayak, SusantaSadhukhan, ManaleeGuha, Nachimuthu Senthil Kumar, Chinmay Kumar Panda, BiswanathMaity, Madhusudan Das.Association of DNA repair and xenobiotic pathway gene polymorphisms with genetic susceptibility to gastric cancer patients in West Bengal, India	(2016) Tumor Biology 1-11	ISSN: 1423- 0380	3.611
34.	Surajit De Mandal, Zothansanga, Amrita Kumari Panda, Satpal Singh Bisht, Nachimuthu Senthil Kumar .MiSeq HV4 16S rRNA gene analysis of bacterial community composition among the cave sediments of Indo-Burma biodiversity hotspot	(2016) Environmental Science and Pollution Research 1-11	ISSN:1614- 7499	2.828
35.	FredaLalrohlui, SunainaThapa, Souvik Ghatak, John Zohmingthanga, Nachimuthu Senthil Kumar .Mitochondrial complex I and V gene polymorphisms in type II diabetes mellitus among high risk Mizo-Mongoloid population, Northeast India	(2016) Genes & Environment 38:5 (1), 1 DOI: 10.1186/s41021 -016-0034-z	ISSN:1880- 7062	
36.	Souvik Ghatak, Ravi Prakash Yadav, Hanumath Singh Rathore, Keheibamding Thou, Felix Jakha, K. ToskaSumi, Zothan Sanga, Nachimuthu Senthil Kumar .Mitochondrial control region and GSTP1 polymorphism associated with familial urinary bladder cancer in Karbi-Anglong tribe of Assam, Northeast India	(2016) Egyptian Journal of Medical Human Genetics DOI: http://dx.doi.org/ 10.1016/j.ejmhg .2016.02.002	ISSN: 1110- 8630	
37.	Surajit De Mandal, Amrita Kumari Panda, Satpal Singh Bisht, Nachimuthu Senthil Kumar .Microbial Ecology in the Era of Next Generation Sequencing	(2016) Next Generation: Sequencing & Applications DOI: S1:001.	ISSN: JNGSA	

		doi:10.4172/jngs a.S1-001		
38.	Rebecca Lalmuanpuii, Souvik Ghatak, Jeremy L Pautu, Doris Lallawmzuali, Rajendra Bose Muthukumaran, Nachimuthu Senthil Kumar . Mutation Profiling in Mitochondrial D-Loop Associated with Stomach Cancer and Tobacco Consumers	(2015) Journal of Clinical & Medical Genomics. 3, 1-	ISSN: JCMG	0.67
39.	LalroKimi, Souvik Ghatak, Ravi Prakash Yadav, LalhmaChhuani, Doris Lallawmzuali, Jeremy L Pautu, Nachimuthu Senthil Kumar. Relevance of GSTM1, GSTT1 and GSTP1 Gene Polymorphism to Breast Cancer Susceptibility in Mizoram Population, Northeast India	(2015) Biochemical Genetics. 1-9	ISSN: 1573- 4927	0.86
40.	Rajan Kumar Choudhary, Vikrant, Quadir M Siddiqui, Pankaj S Thapa, SwetaRaikundalia, Nikhil Gadewal, Nachimuthu Senthil Kumar , MV Hosur, Ashok K Varma. Multimodal approach to explore the pathogenicity of BARD1, ARG 658 CYS, and ILE 738 VAL mutants.	(2015) Journal of Biomolecular Structure and Dynamics. 1-12	ISSN: 0739- 1102	2.9
41.	Vineet Kumar Mishra, Ajit Kumar Passari, K. Vanlalhmangaihi, Nachimuthu Senthil Kumar , Bhim Pratap Singh. Antimicrobial and antioxidant activities of Blumealanceolaria (Roxb.)	(2015) Journal of Medicinal Plants Research. 9, 84-90	ISSN: 1996- 0875	
42.	SunainaThapa, Freda Lalrohlui, Souvik Ghatak, John Zohmingthanga, Doris Lallawmzuali, Jeremy L Pautu, Nachimuthu Senthil Kumar. Mitochondrial complex I and V gene polymorphisms associated with breast cancer in mizo-mongloid population.	(2015) Breast Cancer.1-10	ISSN: 1880- 4233	1.585
43.	Liansangmawii Chhakchhuak, Surajit De Mandal, Guruswami Gurusubramanian, NaganeeswaranSudalaimuthu, ChellappaGopalakrishnan, Raja C Mugasimangalam, Vanramliana, Nachimuthu Senthil Kumar. Complete mitochondrial genome of the Himalayan honey bee, <i>Apislaboriosa</i> .	(2015) Mitochondrial DNA. 1-2	ISSN: 1940- 1744	1.20
44.		(2015) Genomics Data <i>(Elsevier</i>). 5, 25-26	ISSN: 2213- 5960	
45.	Surajit De Mandal, Amrita Kumari Panda, Esther Lalnunmawii, Satpal Singh Bisht, Nachimuthu Senthil Kumar . Illumina-based analysis of bacterial community in Khuangcherapuk cave of Mizoram, Northeast India	(2015) Genomics Data(<i>Elsevier</i>). 5, 13-14	ISSN: 2213- 5960	
46.	Catherine Vanlalruati, Surajit de Mandal, Gurusubramanian Guruswami, Nachimuthu Senthil Kumar . Complete mitochondrial genome of Chocolate pansy <i>Junoniaiphita</i> (Lepidoptera: Nymphalidae: Nymphalinae).	(2015) Mitochondrial DNA DOI: 10.3109/19401794017 36.2015.1033701	ISSN: 1940- 1736	1.701
47.	Ravi Prakash Yadav, Kalibulla Syed Ibrahim, Guruswami Gurusubramanian, Nachimuthu Senthil Kumar . In silico docking studies of non-azadirachtinlimonoids against ecdysone receptor of <i>Helicoverpa armigera</i> .	(2015) Medicinal Chemistry Research. 24	ISSN: 1054- 2523	1.63

		(6): 2621-2631.		
48.	Chhakchhuak L, De Mandal S, Gurusubramanian G, Senthil Kumar N . The near complete mitochondrial genome of the Giant honey bee, <i>Apisdorsata</i> (Hymenoptera: Apidae: Apinae) and its phylogenetic status.	(2015) Mitochondrial DNA DOI 10.3109/19401736.20 15.1066359.	ISSN: 1940- 1736	1.701
49.	Surajit de Mandal, Zothansanga, Amrita Kumari Panda, Satpal Singh Bist, Nachimuthu Senthil Kumar . First report of bacterial community from a bat guano using Illumina next-generation sequencing.	(2015) Genomics Data <i>(Elsevier</i>). 4:99-101		
50.	Ruth Lalfelpuii, BidyuthNathChoudhury, G. Gurusubramanian and N. Senthil Kumar . Influence of medicinal plant extracts on the growth and economic parameters of the silkworm <i>Bombyx mori</i> .	(2014) Sericologia54 (4):275-282.		
51.	Souvik Ghatak, Doris Lallawmzuali, Subhajit Mukherjee, LalMawia, Jeremy L. Pautu, N. Senthil Kumar. Polymorphism in mtDNA control region of Mizo-Mongloid Breast Cancer samples as revealed by PCR-RFLP analysis.	(2014) Mitochondrial DNA. (DOI: 10.3109/1940173 6.2014.982627)	ISSN: 1940- 1736	1.710
52.	Souvik Ghatak, Doris Lallawmzuali, LalMawia. N. Senthil Kumar. Mitochondrial D-Loop and Cytochrome Oxidase C Subunit I Polymorphisms Among The Patients Breast Cancer Of Mizoram, Northeast India	(2014) Current Genetics. 60:201– 212	ISSN: 0172-8083	2.410
53.	L Samuel, RB Muthukumaran, G Gurusubramanian, N Senthilkumar.Larvicidal activity of <i>Ipomoea cairica</i> and <i>Ageratinaadenophora</i> plant extracts against arboviral and filarial vector, <i>Culexquinquefasciatus</i>	(2014) Experimental parasitology 141, 112-121	ISSN: 0014-4894	2.154
54.	AK Panda, SS Bisht, S DeMondal, N.Senthil Kumar , G Gurusubramanian, Brevibacillus as a biological tool: a short review.	(2014) Antonie van Leeuwenhoek 105 (4), 623-639	ISSN: 0003-6072	2.072
55.	R Zomuanpuii, G Guruswami, Senthil Kumar Nachimuthu . A three year study on distribution and ecology of Anophelines in Thenzawl, Mizoram, India	(2014) Journal of environmental biology. 35, 369- 376.	ISSN: 0254 - 8704	0.612
56.	Vanlalhruaia K., G Guruswami, Senthil Kumar Nachimuthu . Diversity and abundance of mosquito species in relation to their larval habitats in Mizoram, Northeastern Himalayan region.	(2014) ActaTropica(In Press)	ISSN 0233- 111 X	2.787
57.	N.Senthilkumar, Guruswami Gurusubramanian and KadarkaraiMurugan. Joint Insecticidal Action of Bacillus thuringiensiskurstaki with Annonasquamosa L. and Prosopisjuliflora Swartz DC on Helicoverpa armigera.	(2014) Proceedings of the Zoological Society 67 (1), 8-17	ISSN: 0373-5893	Peer reviewed, Indexed
58.	Surajit De Mandal, Liansangmawii Chhakchhuak, Guruswami Gurusubramanian, N.Senthilkumar . Mitochondrial markers for identification and phylogenetic studies in insects – A Review.	(2014) DNA Barcodes. 2: 1–9		Peer reviewed, Indexed

59.	Souvik Ghatak, Zothansanga, Jeremy L Pautu, and Nachimuthu Senthil Kumar. Co-Extraction and PCR based analysis of nucleic acids from Formalin-Fixed Paraffin-Embedded Specimens	(2014) Journal of Clinical Laboratory Analysis (DOI: 10.1002/jcla.2179 8)	ISSN: 1098-2825	1.16
60.	Rita Zomuanpuii, LalRingngheti, S. Brindha, G. Gurusubramanian, N. Senthil Kumar . ITS2 characterization and <i>Anopheles</i> species identification of the subgenus Cellia	(2013) ActaTropica 125: 309–319	ISSN 0233- 111 X	2.787
61.	S. Brindha, Zothansanga, Vineet Kumar, Ajith Kumar, BikuMoni, B.P.Singh, G. Gurusubramanian, N. Senthil Kumar Characterization of <i>Bacillus thuringiensis</i> cry1 class proteins in relation to their insecticidal action .	(2013) Computational Life Science 5 (2): 127-135	ISSN 1913- 2751	0.678
62.	Souvik Ghatak, R. Muthukumaran and N. Senthil Kumar . A Simple Method of Genomic DNA Extraction from Human Samples for PCR-RFLP Analysis	(2013) Journal of Biomolecular Techniques. 24:224–231	ISSN 1524- 0215	Peer reviewed, Indexed
63.	Lalhlimpuia Pachuau, Catherine Vanlalruati and N. Senthil Kumar . Morphological versus molecular characterization of three similar Pierid species of butterflies.	(2012) International Journal of Pharma and Bio Sciences	ISSN 0975-6299	0.47
64.	K. Pranjal, S. Brindha, K. Soundararajan and N.Senthil Kumar . Analysis of aminoacids pattern in receptor tyrosine kinase using Boolean Association Rule.	(2012) Bioinformation 8(8): 342-345.	ISSN 0973- 2063	1.182
65.	S. Brindha, SangzualaSailo, G. Gurusubramanian, N. Senthil Kumar. Prot-Prop: J-Tool to Predict the Subcellular Location of Proteins Based on physiochemical Characterization.	(2012) Computational Life Sciences 4 (4): 296-301	ISSN 1913- 2751	0.678
66.	Lalrotluanga, Lalchawimawii Ngente, N. Senthil Kumar and G. Gurusubramanian Insecticidal and repellent activity of HiptagebenghalensisL.Kruz (Malpighiaceae) against mosquito vectors	(2012) Parasitology Research. 111:1007- 1017.	ISSN: 0932-0113	1.721
67.	Zothansanga Ralte, G. Gurusubramanian, N. Senthil Kumar RAPD-PCR characterization of <i>Bacillus thuringiensis</i> soil isolates from Mizoram with insecticidal activity against Culextritaeniorhynchus.	(2012) International Journal of Fundamental & Applied Sciences, 1(3), 55-60.	ISSN 2278- 1404,	0.921
68.	D. Anitha, N. Senthil Kumar , D. Vijayan, K. Ajithkumar and G. Gurusubramanian.Characterization of <i>Bt</i> isolates and their differential toxicity against <i>Helicoverpa armigera</i> populations	(2011) Journal of Basic Microbiology 51: 107–114	ISSN 0233- 111 X	1.395
69.	N. Senthil Kumar, Pushkala Varma and G. Gurusubramanian. Larvicidal activities of medicinal plants against <i>A. stephensi</i> .	(2009) Parasitology Research. 104:237-244	ISSN: 0932-0113	1.721
70.	N. Senthil Kumar, Bin Tang, Xiaofei Chen, HonggangTian, Wenqing Zhang. Molecular Cloning, expression and structure of <i>S. exigua</i> Chitin Synthase gene B.	(2008) Comparative Biochemistry & Physiology :	ISSN: 1096-4959	1.907

71.	N. Senthil Kumar, K. Murugan and Wenqing Zhang.	Molecular Biology, Part B 149:447–453 (2008)	ISSN:	1.957
	Synergistic interaction between NPV and Azadirachtin against <i>H. armigera</i> .	Biocontrol 53:869–880	1386-6141	
72.	Xiaofei Chen, Xing Yang, N. Senthil Kumar , Bin Tang, Xiaojie Sun, XuemeiQiu, Jian Hu, Wenqing Zhang. Class A chitin synthase gene: Molecular cloning and expression patterns.	(2007) Insect Biochemistry and Molecular Biology 37: 409–417	ISSN: 0965-1748	3.111
73.	K. Murugan, D. Jeyabalan, N. Senthil Kumar S. Senthil Nathan and S. Sivaramakrishnan. Influence of host plant on growth and reproduction of <i>A. nerii</i> and prey utilization of its predator <i>M. sexmaculatus</i>	(2000) Indian Journal of Experimental Biology. 38: 598- 603.	ISSN:0019- 5189	0.550
74.	K. Murugan, S. Sivaramakrishnan, N. Senthil Kumar , D. Jeyabalan and S.Senthil Nathan. Potentiating effects of neem seed kernel extract on <i>S. litura</i> NPV.	(1999) Insect Science and its application. 19 (2/3): 229 – 235.	ISSN 0191- 9040	peer reviewed

Additional Publications

S.	Publication Titles	Year/ Name of the	ISSN/ISBN	Impact
No		Journal	No	Factor
1	Roy S., Gurusubramanian, G and N. Senthil Kumar. Anti-mite activity of <i>Polygonumhydropiper</i> L. (polygonaceae) extracts against tea red spider mite, <i>Oigonychuscoffeae</i> nietner (Tetranychidae: Acarina).	(2011)International Journal of Acarology, 37(6), 561-566.	ISSN 0164- 7954	0.8 Peer reviewed, Indexed
2	Gurusubramanian, G., Senthil Kumar, N ., Tamuli, A.K., Sarmah, M., Rahman, A., Bora, S. and Roy, S. Biointensive integrated management of tea pests for sustainable tea production	(2009) International Journal of Tea Science 7(3&4):45-59.	ISSN 0972- 544X	1.17 Peer reviewed, Indexed
3	G. Gurusubramanian, N. Senthilkumar , S. Bora, Somnath Roy, and AnandaMukhopadhyay Change in Susceptibility in Male <i>Helopeltistheivora</i> Waterhouse (Jorhat Population, Assam, India) to Different Classes of Insecticides.	(2008) Resistant Pest Management Newsletter, 18 (1), 36- 39.		1.0 Peer reviewed, Indexed
4	P. Suganyadevi and N. Senthil Kumar . Effects of botanicals and NPV on <i>H. armigera</i>	(2007) Allelopathy Journal 20 (2): 419 - 426		0.793 Peer reviewed, Indexed
5	NirmalJothi, P. Nagarajan, R. Rabindran and N. Senthil Kumar RAPD Markers Linked Rice Blast Resistant Gene	(2001) Tropical Agricultural Research 13:373- 379	ISSN: 1016-1422	Peer reviewed
6	S. Mohankumar, P. Nagarajan, R. Subhashini, N. Senthil Kumar and S. SadasivamMolecular Characterization of Rice BPH Biotypes with RAPD	(2001) AgriEast3:69- 73.		

	Markers				1
7	K. Murugan, N. Senthil Kumar , D. Jeyabalan and M. Swamiappan. Influence of <i>H. armigera</i> diet on its parasitoid <i>C. chlorideae</i>	(2000) Insect Science and its Application 20(1): 23-31.	ISSN 0191- 9040	peer reviewed	
8	K. Murugan, D. Jeyabalan, N. Senthil Kumar S. Senthil Nathan and S. Sivaramakrishnan. Influence of host plant on growth and reproduction of <i>A. nerii</i> and prey utilization of its predator <i>M. sexmaculatus</i>	(2000) Indian Journal of Experimental Biology. 38: 598-603.	ISSN:0019- 5189	0.550	
9	K. Murugan, S. Sivaramakrishnan, N. Senthil Kumar , D. Jeyabalan and S.Senthil Nathan. Potentiating effects of neem seed kernel extract on <i>S. litura</i> NPV.	(1999) Insect Science and its application. 19 (2/3): 229 – 235.	ISSN 0191- 9040	peer reviewed	
10	N. Senthil Kumar and K Murugan. Impact of NPV and Azadirachtin on <i>H. armigera</i> .	(1999)Tropical Agricultural Research. 11: 393- 407.	ISSN: 1016-1422	peer reviewed	
11	K.Murugan, N. Senthil Kumar , D.Jeyabalan, S.Senthil Nathan and S. Sivaramakrishnan. Neem as effective bio – pesticide to control teak defoliator <i>Hyblaeapurea</i> .	(1999) J. Non timber forest products. 6 (1/2) : 78 –82.	ISSN 0971-9415	peer reviewed	
12	K. Murugan, D. Jeyabalan, N. Senthil Kumar , R. Babu and S. SenthilnathanAntifeedant and inhibitory potency of Neemlimonoids against <i>H. armigera</i> .	(1998) Insect Science and its Application. 18 (3): 157-162.	ISSN 0191- 9040	peer reviewed	
13	K. Murugan, S. Sivaramakrishnan, N. Senthil Kumar and D. Jeyabalan. Growth promoting effects of plant products on silkworm	(1998) J. Scientific and Industrial Research. 57: 740-745.	ISSN: 0022-4456	0.237	
14	K. Murugan, S. Sivaramakrishnan, N. Senthil Kumar and D. Jeyabalan. Synergistic Interaction of botanicals and biocides on pest control	(1998) J. Scientific and Industrial Research. 57: 732-739.	ISSN: 0022-4456	0.237	
15	N.Senthil Kumar and K Murugan. Potential enhancement of NPV with Azadirachtin on <i>H. armigera</i>	(1998)Tropical Agricultural Res. 10: 324-333.	ISSN: 1016-1422	peer reviewed	
16	D. Jeyabalan, K. Murugan, N.S. Raja and N. Senthil Kumar . Effects of Azadirachtin and neem seed kernel extracts on <i>H. puera</i>	(1998) J. Applied Zoological Res. 9 (1&2): 65-68.	ISSN 0970-9304	Peer reviewed 097	'0-930
17	N. Senthil Kumar , D. Jeyabalan and K. MuruganAntifeeding and growth - inhibiting effect of neem leaf exudate on <i>S. litura</i> .	(1997) Indian J. Entomology. 59(2): 151-154.	ISSN: 0367-8288	peer reviewed	
18	S. Sivaramakrishnan, N. Senthil Kumar , D. Jeyabalan, R.Babu, N.S. Raja and K. Murugan. The effect of mixtures of neem, <i>Eucalyptus</i> and <i>Pongamia</i> oils on <i>B. microplus</i>	(1996) Indian J. Environment & Toxicology. 6 (2): 85 - 86.	ISSN: 0971-2127	Peer reviewed	•
19	K. Murugan and N. Senthil Kumar . Host plant Biochemical Diversity on <i>H. puera</i>	(1996) Indian J. of Forestry. 19 (3): 253 - 257.	ISSN: 09719431	Peer reviewed	
20	K. Murugan, R. Babu, D. Jeyabalan, N. Senthil Kumar and S. Sivaramakrishnan. Antipupational effect of neem extract against mosquito larvae of <i>A. stephensi</i>	(1996) J. Entomological Research. 20 (2): 137 - 139.	ISSN: 0378-9519		
21	D.Jeyabalan, S.Senthilnathan, N.Senthilkumar, K.Murugan and K.Udaiyan Influence of host Plant biochemical diversity on <i>D. chrysippus</i>	(1997) Flora and Fauna	ISSN: 0971-6920	Peer reviewed	
22	D.Jeyabalan, S.Senthilnathan, N.Senthilkumar , K.Murugan and K.Udaiyan Effect of host plant secondary chemicals on food utilization of <i>D. nerii</i> .	(1996) Uttar Pradesh J. Zoology	ISSN: 0256-971X	Peer reviewed	†

23	N.Senthilkumar, S.Senthilnathan, K.Murugan and K.Udaiyan Pollination Ecology of <i>Apisflorea</i>	(1999) Zoo's Print	ISSN 0973- 2535	peer reviewed
24	N. Senthilkumar, Senthilvadivu and K.Murugan. Feeding and reproductive behavior of flower beetle	(1996) Zoo's Print	ISSN 0971- 6378	Peer reviewed, Indexed
25	N.Senthilkumar, K.Murugan and K. Udaiyan. Succession of insect fauna during decomposition of litter in a Teak Forest	(1996) Zoo's Print	ISSN 0971- 6378	Peer reviewed, Indexed

- Zothansangi, Catherine Ruati, V. L., Isaac Laldikbera, Gurusubramanian, G.andSenthil Kumar, N. (2011) Butterfly Diversity in Mizoram University Campus, Aizawl, India and Their Global Distributions. Advances in Environmental Chemistry, 11 (3), 249-252. ISBN: 93-81361-53-3
- 2. Laltanpuii, Manu Thomas Mathai, Gurusubramanian, G. and **Senthil Kumar, N.** (2011) Diversity and Molecular Phylogeny of Odonata: A Case Study in Mizoram University Campus, Mizoram, India. Advances in Environmental Chemistry, 11 (3), 253-255. ISBN: 93-81361-53-3
- Lalrotluanga, Senthil Kumar, N. and Gurusubramanian, G. (2011) Mosquito Larvicidal Activities of Syzygiumaromaticum Leaf extract against *Culexquinquefasciatus* Say. Advances in Environmental Chemistry, 11 (3), 269-271. ISBN: 93-81361-53-3
- 4. Esther Lalhmingliani, Gurusubramanian, G. and **Senthil Kumar, N**. (2011) Diversity of Wild Silk Moths in Mizoram, Northeast India. Advances in Environmental Chemistry, 11 (3), 301-302. ISBN: 93-81361-53-3
- 5. Zothansanga, **N. Senthil Kumar** and G. Gurusubramanian (2011) PCR pathotyping of native Bacillus thuringiensis from Mizoram. Science Vision 11 (3): 165-168. ISSN 0975-6175
- 6. Lalrotluanga, **N. Senthil Kumar** and G. Gurusubramanian (2011) Evaluation of the Random Amplified Polymorphic DNA assay for the detection of DNA damage in mosquito larvae treated with plant extracts. Science Vision 11 (3): 155-158. ISSN 0975-6175
- 7. R. Laltanpuii, Rita Zomuanpuii, TejmalaHijam, G. Gurusubramanian and **N. Senthil Kumar** (2011) RAPD-PCR characterization of insecticide resistant and susceptible *Anopheles* species. *Science Vision* 11 (3): 159-164.ISSN 0975-6175
- 8. Catherine, V., Zothansangi, Gurusubramanian, G. and **N. Senthil Kumar**, (2011) Morphological and molecular studies of six *Junonia* species of butterflies using RAPD-PCR technique. *Science Vision*, 11(3):141-146.ISSN 0975-6175
- 9. Zothansangi, Catherine, V., **N. Senthil Kumar**, and Gurusubramanian, G. (2011) Genetic variation within two cryptic species of Cirrochroa by RAPD-PCR technique. *Science Vision*, 11(3):141-146. ISSN 0975-6175
- S. Brindha, SangzualaSailo, Liansangmawii Chhakchhuak, PranjalKalita, G. Gurusubramanian and N. Senthil Kumar (2011) Protein 3D structure determination using homology modeling and structure analysis. Science Vision, 11(3):125-133.
- 11. H. Tejmala, S. Brindha, G. Gurusubramanian and **N. Senthil Kumar** (2011) In-silico comparison of distal-less protein variation in insects. *Science Vision*, 11(4):189-197. ISSN 0975-6175
- 12. Gurusubramanian, G. and Senthilkumar, N. (2008) Microbial insecticides in management of crop pests and their prospects in Mizoram. Science Vision, 8(1/2): 32-43. ISSN 0975-6175
- Lalrotluanga, Isaac Laldikbera, Catherine Vanlalruati, Zothansanga, Brindha, S., Senthil Kumar, N. and Gurusubramanian, G. (2008) Butterfly faunal diversity in Aizawl, Mizoram, Northeast India. Science Vision, 8(3): 65-75, ISSN 0975-6175
- N.Senthil Kumar and G.Gurusubramanian (2011) Sequence Analysis, In: Bioinformatics and its Application in Animal Science, pp.26-31. Tolenkhomba and Shyamsana Singh (Ed.), Bioinformatics infrastructural facility centre, College of Veterinary Sciences and Animal Husbandry, Central Agricultural University, Aizawl, Mizoram. March 10-11, 2011 pp.26-31.
- 15. Senthil Kumar, N. and Gurusubramanian, G. (2009) Bioinformatics and its application in genome research. In: Bioinformatics – Concept and Application, pp.31-44. SantanuBanik (Ed.), Department of Biotechnology, Ministry of Science and Technology and Bioinformatics infrastructural facility centre, College of Veterinary Sciences and Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.
- 16. Gurusubramanian, G. and Senthil Kumar, N. (2009) Biological databases Searching and data retrieval. In: Bioinformatics – Concept and Application, pp.9-18. Workshop Manual of Bioinformatics Training Course. SantanuBanik (Ed.), Published by Department of Biotechnology, Ministry of Science and Technology and Bioinformatics infrastructural facility centre, College of Veterinary Sciences and Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.

- 17. Gurusubramanian, G. **Senthil Kumar, N.** and Bhattacharya, J. (2009) Basic concepts of phylogenetic systematics and their applications, pp. 43-58. In: Bioinformatics General Concepts and Applications. Workshop Manual of Bioinformatics Training Course. Published by Department of Biotechnology, Ministry of Science and Technology and Bioinformatics Infrastructure Facility (BIF), Department of Biotechnology, Mizoram University, Mizoram.
- 18. **Senthil Kumar, N.**, Gurusubramanian, G. and Bhattacharya, J. (2009) From sequencing to database and from database to sequence analysis, pp. 63-110. In: Bioinformatics General Concepts and Applications. Workshop Manual of Bioinformatics Training Course. Published by Department of Biotechnology, Ministry of Science and Technology and Bioinformatics Infrastructure Facility (BIF), Department of Biotechnology, Mizoram University, Mizoram.
- 19. **N.Senthil Kumar**, K Murugan and D.Jeyabalan (2000) Effect of Azadirachtin, Nuclear Polyhedrosis Virus and Bacillus thuringiensis on the reproductive performance of Helicoverpa armigera. In; Biological Control of Insects (Ed. K. Murugan). pp.86-87.
- 20. K. Murugan, **N. Senthil Kumar**, S. Senthil Nathan and S. Sivaramakrishnan (1999) Synergistic effect of Botanicals and microbial pesticides on *Spodoptera litura*FAB. In: Biopesticides in insect pest management (Eds. K. Ignacimuthu& A. Sen). pp 232 242.