

Faculty Profile of Dr. V. Thirunavukkarasu



Dr. V. Thirunavukkarasu
Associate Professor
Department of Biotechnology

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Research Area

- Cancer Genetics and Proteomics, Signal Transduction, Cancer Therapeutics
- Infectious Diseases

Education & Career

Education

Ph. D.

Subject :Biochemistry

Institution :Annamalai University

Affiliated University : Annamalai University

Year of Award :2005

M.Phil.

Subject :Biochemistry

Institution :Annamalai University

Affiliated University :Annamalai University

Year of Award :2000

M. Sc.

Subject :Biochemistry

Institution :Annamalai University

Affiliated University :Annamalai University

Year of Award :1999

B. Sc.

Subject:Biochemistry

Institution:Bharathiar University

Affiliated University:Bharathiar University

Year of Award:1997

Career**At Bharathiar University (Reverse Order)**

Professor : August 2018 to Till Date

Associate Professor : August 2015 to August 2018

Assistant Professor : April 2005 to August 2015

Past Experience**1.Post-doctoral Research Associate (May 2005-July 2008)**

University of Texas Health Centre .

Tyler, Tyler, Texas, USA

2.Post- doctoral Fellow(August 2008-September 2009)

Department of pediatrics, LSUHSC

Shreveport, Louisiana, USA

3.Post-doctoral research Fellow(October 2009-January 2015)

Department of Pathology, University of Michigan
Ann arbor, Michigan, USA

4.Senior Scientist (March 2015-March 2016)

V ClinBioLabs Pvt. Ltd, Central Research Facility Sri Ramachandra Medical
University
Porur, Chennai.

**5.DBT-Ramalingaswami Fellow/Senior Assistant professor(April
2016-November 2016)**

Department of Animal science, Bharathidasan University
Tiruchirapalli

Awards

Travel Awards

Funding agency : American society for Hematology.

Name of conference : 56th American society for Hematology (ASH) annual
meeting and exposition.

Country : Sanfrancisco, California, USA.

Title of paper : Novel gene translocations involving TYK2 in cutaneous CD30-
positive lymphoproliferative disorders.

Date of Award : December 5-10, 2014.

Funding agency : Gordon Research Conference.

Name of conference : Gordon Research Conference on salivary glands and
exocrine biology.

Country : Galveston, Texas, USA.

Title of paper : Analysis of TRIM21/SSRo52 interacting proteins by tandem
mass spectrometry.

Date of Award : February 6-11, 2011.

Academic Awards

Awarding agency : US Lymphoma Research foundation.

Purpose of award : Postdoctoral grant.

Country : USA.

Date of Award : 2015-2017.

Awarding agency : Department of Biotechnology.

Purpose of award : DBT-Ramalingaswami Re-entry fellowship.

Country : India.

Date of Award : 2016-2021.

Awarding agency : Venus International Faculty award..

Purpose of award : Outstanding Faculty in Life science.

Country : India.

Date of Award : 2017.

Membership

Academic Bodies

Organization :SERB (Core Research Grant)

Type of Membership :Review Member

Period :3 years (2017-2019)

Organization :Indo-Canadian Shastri Institutional Collaborative Research Grant

Type of Membership :Review Member

Period :2020

Visits

Country Visited : Oman.

Duration of Visit : 5 days

Month and Year : November 11-15,2019

Purpose of Visit : To attend 6th International meeting on Food & Brain Health, Sultan Qaboos University, Sultanate of Oman.

Country Visited : Kuwait.

Duration of Visit : 3 days

Month and Year : November 27-29,2018

Purpose of Visit : To attend 3rd Kuwait international conference on life sciences , Kuwait.

Country Visited : Oman.

Duration of Visit : 2 days

Month and Year : November 5-6, 2017

Purpose of Visit : To attend 5th International meeting on Food & Brain Health, Sultan Qaboos University, Sultanate of Oman.

Collaborators

Others

Projects

Funded Projects(National level)

- [Ongoing-2](#)
- [Completed-1](#)

1.Role of Notch2 in cancer and Immunity.

Principle Investigator:Dr. V. Thirunavukkarasu.

Funding Agency : DBT- Ramalingaswami Re-entry fellowship

Amount : 32.5 Lakhs.

Duration : 2016-2021(Ongoing)

2.Translational Genomics and Proteomics in cancer.

Principle Investigator:Dr. V. Thirunavukkarasu.

Funding Agency : RUSA 2.0- BCTRC

Amount : 14.88 Lakhs.

Duration : 2021-2022 (Ongoing)

1.Development of strip based biosensor kit to diagnose dengue infections at early age.

Principle Investigator:Dr. V. Thirunavukkarasu.

Funding Agency :RUSA 2.0-BEICH,

Amount : Rs.8 Lakhs.

Duration : 2020(6 months)

Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Research Guidance

- [Post Doc.](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.](#)

Ongoing

Title

Name

Completed

Title

Name

Ongoing

Sample Data.

Completed

Sample Data.

Ongoing

Sample Data.

Completed

Sample Data.

Ongoing

Sample Data.

Completed

Sample Data.

Research Publication

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books / Chapters](#)
- [Database](#)

1. [Anti-obesity effect of T. chebula fruit extract on high fat diet induced obese mice: A possible alternative therapy.](#)
S. Gowtham, S. Deepankumar, S. Ramya, M. Karthi, P. Vinithra, T. Kalpana, V. Thirunavukkarasu, K. Vasanth, S. Selvakumar.
Mol Nutr Food Res, Vol 65, Iss 10, pp 2170025, 2021.
2. [Biosimilars: An Update.](#)
B. Saravanan, A. Thirumoorthy Durai, R. Abhinav, BS. Sushmitha, R. Srinivasan Ramamurthy, V. Thirunavukkarasu, R. Thiyagarajan, MK. Jayanthi, MM. Essa, C. Saravana Babu, M. Walid Qoronfleh.
Int. J of Nutr. Pharm. Neurological Dis., Vol 11, Iss: 1, pp 7-16, 2021.
3. [RNA sequencing analyses reveal differentially expressed genes and pathways as Notch2 targets in B-cell lymphoma.](#)

A. Ashok, B. Pavithra, V. Thirunavukkarasu. Oncotarget, Vol 11, Iss 48, pp 4527–4540, 2020.

4. [Can mandated BCG vaccine promote herd immunity against novel coronavirus? A potential solution at hand to tackle covid-19 pandemic.](#)
A. Ashok, B. Pavithra, R. Thiyagarajan, V. Thirunavukkarasu.
Current Immunology Reviews, Vol 16 Iss 1, pp. 6–11, 2020.
5. [Boswellia Gum Resin and Essential Oils: Potential Health Benefits - An Evidence Based Review.](#)
L. Rashan, F. Lukmanul Hakkim, M Idrees, MM Essa, V. Thirunavukkarasu, M. Al-Baloshi, BS Al-Balushi, AA Jabri, MH Al-Rizeiqi, GJ Guillemín, SSA Abdo Hasson.
Int. J of Nutr. Pharm. Neurological Dis., Vol 9, Iss: 2, pp 53-71, 2019.
6. [PAX3: a molecule with oncogenic or tumor suppressor function is involved in cancer.](#)
A. Ashok, M. Sengottuvelan, MM Essa, V. Thirunavukkarasu, GJ Guillemín.
Biomed Res Int. Vol 1; pp 1-12; 2018.
7. [Protective effect of zizyphus spinachristi on mpp+-induced oxidative stress.](#)
S. Vandita, MM Essa, N Guizani, B Rengasamy, H Tamiloli, M Thamilarasan, JT Arokiasamy, E Namasivayam, V. Thirunavukkarasu.
Front Biosci – Sch. Vol 10, Iss 2, pp 285-299, 2018.
8. [Protective Effect of Antioxidants on Neuronal Dysfunction and Plasticity in Huntington 's disease.](#)
V. Thirunavukkarasu, Archana SP, P Meera, A Muthuswamy, P Pramod Kumar, J Sanjeev, MM Essa, GJ Guillemín, K Mahesh.
Oxidative Medicine and Cellular Longevity, Vol 2017, ID 3279061, 2017.
9. [NPM-ALK Mediated Tyrosine Phosphorylation of ATP Citrate Lyase Regulates Lipid Metabolism and Promotes Oncogenesis of Anaplastic Large Cell Lymphoma.](#)
J Basappa, AE Mahmoud, CR Delphine, V. Thirunavukkarasu, H Steven, B Venkatesha, C Kevin, Z Lili, GB Nathanael, Charles FB, SJ Kojo, SL Megan.
Blood, Vol 126, Iss 23, pp 465, 2015.
10. [Genomic Analyses Reveal Recurrent Mutations in Epigenetic Modifiers and the JAK-STAT Pathway in Sézary Syndrome.](#)
JK Mark, AS Anagh, CR Delphine, V. Thirunavukkarasu, C Fuzon, S Matthew, B Nathanael, LB Bryan, NM Roberto, P Pierluigi, CB John, LM Jeffrey, Lk Steven,

WB David, SL Megan, SJ Kojo.
Nat Commun. Vol 6, Iss 1, pp 1-10, 2015.

11. [A novel recurrent NPM1-TYK2 gene fusion in cutaneous CD30-positive lymphoproliferative disorders.](#)
V. Thirunavukkarasu, JK Mark, AS Anagh, CR Delphine, D Catherine, BG Nathanael, LB Bryan, AB Noah, CH Alexandra, AW Ryan, NM Roberto, LM Jeffrey, KJ Yoon, VI Kedar, SL Megan, SJ Kojo.
Blood. Vol 124, Iss 25, pp 3768-3771, 2014.
12. [Integrated Genomic Sequencing Reveals Mutational Landscape of T-cell Prolymphocytic Leukemia.](#)
JK Mark, V. Thirunavukkarasu, CR Delphine, AS Anagh, C Fuzon, BG Nathanael, S Alexandra, L Bo, ZL Jun, BO Ayse, LB Bryan, NM Roberto, LM Jeffrey, Z Lili, H Marco, SL Megan, SJ Kojo.
Blood, Vol Iss 9, pp 1460-1472, 2014.
13. [Oncogenic Y641 mutations in EZH2 prevent Jak2/ \$\beta\$ -TrCP-mediated degradation.](#)
AS Anagh, C Xiaofei, C Fuzon, V. Thirunavukkarasu, SL Megan, SJ Kojo.
Oncogene. Vol 34, Iss 4, pp 445-454, 2014.
14. [A Novel Non-Canonical Phosphodegron Regulates EZH2 Proteasomal Degradation and H3K27 Trimethylation Activity in Hematopoietic Malignancies.](#)
AS Anagh, C Xiaofei, V. Thirunavukkarasu, C Fuzon, SL Megan, SJ Kojo.
Blood, Vol 124, Iss 21, pp- 1678, 2014.
15. [Novel Gene Translocations Involving TYK2 in Cutaneous CD30-Positive Lymphoproliferative Disorders.](#)
V.Thirunavukkarasu, JK Mark, AS Anagh, CR, AD Catherine, BG Nathanael, LB Bryan, AB Noah, CH Alexandra, AW Ryan, NM Roberto, LM Jeffrey, KJ Yoon, SL Megan, SJ Kojo.
Blood, Vol 124, Iss 21, pp 3032, 2014.
16. [SCF- \$\beta\$ -TrCP E3 Ubiquitin Ligase-Mediated Proteolysis Of EZH2 Regulates H3K27 Trimethylation Activity In Germinal Center-Derived B-Cell Lymphomas](#)
.
AS Anagh, X Chen, F Chung, V Thirunavukkarasu, Megan S Lim, SJ Kojo.
Blood. Vol 122, Iss 21, pp 244-244, 2013.

17. [Regulation of airway and alveolar epithelial cell apoptosis by p53-Induced plasminogen activator inhibitor-1 during cigarette smoke exposure injury](#)
KS Shwetha, PB Yashodhar, SM Amarnath, A Daniel, V Thirunavukkarasu, S Barry, S Sreerama.
American journal of respiratory cell and molecular biology, Vol 47, Iss 4, pp 474-483, 2012.
18. [Whole-genome sequencing identifies recurrent somatic NOTCH2 mutations in splenic marginal zone lymphoma.](#)
JK Mark, V Thirunavukkarasu, LB Bryan, Z Lili, GW Helmut, YC Mark, RH David, GB Nathanael, TY David, B Govind, NM Roberto, WB David, LM Jeffrey, SL Megan, SJ Kojo .
Journal of Experimental Medicine, Vol 209, Iss 9, pp 1553-1565, 2012.
19. [Effects of high glucose and ketosis \(acetoacetate, ss-hydroxybutyrate\) on PAI-1 secretion in human umbilical vascular endothelial cells.](#)
V Thirunavukkarasu, KJ Sushil.
Clinical and Applied Thrombosis/Hemostasis, Vol 17, Iss 3, pp 288-292, 2011.
20. [Chromium dinicocysteinate supplementation can lower blood glucose, CRP, MCP-1, ICAM-1, creatinine, apparently mediated by elevated blood vitamin C and adiponectin and inhibition of NFkappaB, Akt, and Glut-2 in livers of zucker diabetic fatty rats.](#)
KJ Sushil, LC Jennifer, V Thirunavukkarasu, LR Justin, B Rebeca.
Molecular nutrition & food research, Vol 54, Iss 9, pp 1371-1380, 2010.
21. [Post-transcriptional regulation of plasminogen activator inhibitor Type-1 expression in human pleural mesothelial cells.](#)
S Sreerama, V Thirunavukkarasu, SS Rashmi, SM Amarnath, KS Shwetha, F Galina, T Torry, K Kathy, S Praveenkumar, PB Yashodhar, I Steven.
American journal of respiratory cell and molecular biology, Vol 43, Iss 3, pp 358-367, 2010.
22. [Induction of tissue factor by urokinase in lung epithelial cells and in the lungs](#)
S Sreerama, PB Yashodhar, KS Shwetha, V Thirunavukkarasu, S Praveenkumar, B Khalil, RG Margaret, BC Douglas, I Steven, FN Pierre, R Clemens, G Andreas, A Edward, SS Rashmi.
American journal of respiratory and critical care medicine, Vol 181, Iss 12, pp 1355-1366, 2010.

23. [Urokinase receptor expression involves tyrosine phosphorylation of phosphoglycerate kinase](#)
S Praveenkumar, V Thirunavukkarasu, PB Yashodhar, CL Ming, S Sreerama.
Molecular and cellular biochemistry, Vol 335, Iss 1, pp 235-247, 2010.
 24. [Curcumin Supplementation Causes PTEN Inhibition in Liver and Lowers Blood Glucose, Oxidative Stress and Markers of Endothelial Dysfunction and Vascular Inflammation in ZDF Rats](#)
J Sushil, V Thirunavukkarasu, R Justin, C Jennifer.
Free Radical Biology and Medicine, Iss 49, pp S38-S39, 2010.
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1. Taurine prevents collagen abnormalities in high fructose-fed rats.
Nandhini AT, Velusamy Thirunavukkarasu, Anuradha CV. Indian Journal of Medical Research, 2005 Aug; 122(2):171-7.
 2. Lipoic acid restores antioxidant system in tissues of hyperinsulinemic rats.
Velusamy Thirunavukkarasu, A.T. Anitha Nandhini and C.V. ANURADHA.
Indian Journal of Medical Research, 118, 134-140, (2003).
-
1. Oncogenic TYK2 Gene fusions in Cancer, International (US patent),
In process at University of Michigan Technology transfer office.
 2. Entitled: Methods and Biomarkers for Detection and Treatment of Mature T-cell Leukemia, International (US patent), 2015,
US Patent Appl. No.: 14/459928
 3. Entitled: RNA Chimeras In Human Leukemia And Lymphoma, International (US patent), 2014,
US Patent Appl. No.: 14/271175
 4. Entitled: Methods and Biomarkers for Detection of Lymphoma, International (US patent), 2012,
US Patent Appl. No.: 61/666,445.
-
1. Workshop on Molecular Biology Techniques, 28-31 January, 2020.
Role: Guest Speaker.
Next Generation sequencing platforms and their applications,
Department of Biochemistry, Bharathiar University, India

2. 6TH International workshop on Food and Brain Health, November 11-15, 2019.
Role: Guest speaker/Chair Person. Role of mitochondrial dysfunction in cancer,
Sultan Qaboos University, Oman
3. International conference on Neurochemistry and Neuropharmacology, 14th to 16th March, 2019.
Role: Guest Speaker/Chair Person. Alcohol consumption and cancer pathogenesis,
JSS College of Pharmacy, Mysuru, India
4. National conference on Drug Discovery and Translational Medicine, 14-to 16th March, 2019.
Role: Guest Speaker Role of Genomics in New Drug Discovery,
Department of Biochemistry and Biotechnology, Annamalai University,
Annamalai Nagar India
5. National Seminar on Emerging Trends in Genomic Research, 22nd February, 2019.
Role: Guest Speaker. Role of Next Generation Sequencing in Discovery of New Cancer Drugs,
St. Thomas College, Thirssur, India
6. Seminar on the theme of nobel prize in medicine and physiology, 7th February, 2019.
Role of Genomics in Characterization of Immunological cancers,
Department of Biomedical Science, Bharathidasan University, Tiruchirappalli, India
7. National Seminar on Computer Genomics Tools for Next Generation Sequencing and Biomedical Data Analysis, 8th February, 2019.
Role: Guest Speaker. The importance of Human Genome Project, DBT informatics center &
Dept of Bioinformatics, Bharathiar University, India
8. 3RD Kuwait International Conference on Life Sciences (KICLS, 2018) November 27-29, 2018.
Role: Guest Speaker. Role of Transcription Factor PAX3 in Breast Cancer Progression
College of Life Sciences, Kuwait University, Kuwait
9. National Conference Basic and Applied Biological Sciences-2018, 10-11 October, 2018.

Role: Guest Speaker. Technologies that Transformed Medicine,
Department of Botany and Department of Biochemistry, Bharathiar University,
India.

10. National workshop on big data in life sciences , 5-6 September, 2018.

Role: Guest Speaker. Importance of Human Genome Project and NGS data
analysis,

Department of Environmental Sciences, Bharathiar University, India

11. National Seminar on Recent Trends in Biological Sciences, 20th January, 2018.

Role: Guest Speaker. Scope and importance of biotechnology in human
welfare.

Padmavani Arts and Science College for Women, Salem, India

12. 5th International workshop on Food and Brain Health, November 5-6, 2017.

Role: Guest speaker/Chair Person. Nutritional Psychiatry: An emerging
concept to treat mental disorder,

Department of Food Science and Nutrition, College of Agricultural and Marine
sciences, Sultan Qaboos University, Oman

13. National Workshop on Plant Conservation Biotechnology, 9-17 March, 2017.

Role: Guest Speaker. Role of Plant Biotechnology in Medicine,
Department of Botany, Bharathiar University India.

14. International Conference on Current Scenario and Future Prospects of
Biotechnology 9th August, 2016.

Role: Guest Speaker. Nanoparticles in Drug Discovery Research,

Department of Biotechnology, Thanthai Hans Roever College, Perambalur
India

15. 6th world congress of diabetes India conference, April 9-12, 2015.

Role: Delegate, Hotel ITC grand Chola convention centre, Chennai India

16. One day seminar Genetic Diseases: Mendelian to malignancies August 17
2015.

Role: Delegate.

Indian Institute of Science, Chennai, India

17. Next Gen genomics, biology, bioinformatics and technologies (NGBT)
conference, October 1-3, 2015.

Role: Delegate

Hyderabad international convention center, Hyderabad, India

18. National symposium on molecular techniques in diagnosis and Research, October 31, 2015.

Role: Delegate.

Mahatma Gandhi Medical College and Research Institute, Puducherry, India

19. American society for Hematology annual international conference, December 5-10, 2014,

Novel gene translocations involving TYK2 in cutaneous CD30-positive lymphoproliferative disorders,

American Society for Hematology, Sanfrancisco, California, USA.

20. Gordon Research Conference on salivary glands and exocrine biology, February 6-11, 2011,

Analysis of TRIM21/SSRo52 interacting proteins by tandem mass spectrometry,

Society for Salivary Biology, Galveston, Texas, USA.

21. International conference for Society for Experimental Biology, April 2009,

Poster Effect of L-Cysteine supplementation on blood glucose, glycated hemoglobin and NFkB activation in Zucker diabetic rats,

Society for Experimental Biology, New Orleans, USA.

22. International conference for American Thoracic Society, May 2007,

Urokinase induces expression of its own receptor through hnRNPC-mediated posttranscriptional stabilization of uPAR mRNA

American Thoracic Society, San Francisco, USA.

23. International Conference on Natural Products, Free Radicals and Radioprotectors in Health (NFRH-2004), January 17-19, 2004.

Oral Influence of α -lipoic acid on lipid peroxidation and antioxidant defense system in blood of insulin resistant rats

Society for Free Radical Research, Annamalai nagar, India

24. 16th annual conference of Indian society of atherosclerosis research and international conference on "Recent developments in atherosclerosis research"- December 1-3 (2003),

Oral α -lipoic acid attenuates lipid peroxidation and lipid abnormalities and improves antioxidant status in heart of fructose-fed insulin resistant rats.

Indian Society for Atherosclerosis Research, Varanasi, India

Books

1. Calcium signaling and Cancer Metastasis - Dr.V.Thirunavukkarasu - Under Review
2. Epigenetics and Cancer Metabolism - Dr.V.Thirunavukkarasu - Under Review

Chapters in Edited Books

1. Food/Herbs/Dietary Requirements for Parkinson's Disease. In: Food and Parkinsons Diseases.
M.Mohammed Essa. Mullaicharam AR, SenthilKumari, Musthafa Mohamed Essa, Thirunavukkarasu Velusamy. Essa MM, Manivasagam T, Justin Thenmozhi A, Khan. Nova science Publishers 2016 MAS.
ISBN no:978-1-63485-736-9

Alumini Reflections: