**Brindhalakshmi Balasubramanian**

**17, Silver Falls, Storrs,**

**Connecticut, USA - 06268**

**Contact No: +1(860)-634-0244**

**brindhalakshmi.balasubramanian@uconn.edu**

**CURRENT POSITION**

PhD student in the Department of Animal Science, UCONN, USA.

**ACADEMIC PROFILE**

**August 2013**

* **Bachelor of Veterinary Science and Animal Husbandry** (B.V.Sc & AH)

Puducherry, INDIA.

**May 2016**

* **Master of Veterinary Science** - Veterinary Microbiology (MVSc)

Puducherry, INDIA.

**GRADUATE THESIS**

Project Title: “Comparative genomic analysis of field isolates, cell culture passaged and vaccine strains of canine/feline parvovirus”

*Outcomes of the Project:*

* By Phylogenetic analysis, it is evident that the strains causing infection in dogs and cats are clustering away from the currently available vaccine strains
* The CPV strains isolated from the cats are more prone for mutations when it is grown on dogs' cell lines
* Identified a potential vaccine candidate strain - further studies in an animal model are required to test in vivo efficacy

**MEMBERSHIPS**

* Member in Institute of Food Technologists (2019-present).
* Member in International Association for Food Protection (2019-present).
* Life time member in Indian Society for Veterinary Microbiology and Immunology (ISVMI) (since 2016)
* Registered Veterinary Practitioner Membership in Tamilnadu State Veterinary Council (Reg. No. 6232)

**PRESENTATIONS**

* Presented an Oral presentation entitled “Efficacy of eugenol nanoemulsions in inactivating Listeria monocytogenes, Salmonella Enteritidis, and Escherichia coli O157:H7 on cantaloupes” in IFT USA (July, 2022).
* Presented a poster in CAHNR Graduate research forum, 2022 " Eugenol nanoemulsion inactivates Listeria monocytogenes, Salmonella Enteritidis, and Escherichia coli O157:H7 on cantaloupes".
* Presented an Oral presentation entitled “Eugenol modulates *Listeria monocytogenes* proteome and virulence factor critical for biofilm formation” in IFT USA (July, 2021).
* Presented an Oral presentation entitled “Inactivation of *Listeria monocytogenes* on cantaloupe by eugenol nanoemulsion in combination with commercial sanitizers” in IAFP USA (July 2021).
* Presented an Oral presentation entitled “Eugenol nanoemulsion reduce biofilm formation and inactivates mature biofilm” in IFT USA (July, 2020)
* Presented an Oral presentation entitled “Application of eugenol nanoemulsion for controlling *Listeria monocytogenes* biofilms in food processing environment” in IAFP USA (July, 2020).
* Presented an Oral presentation entitled “Effect of eugenol nanoemulsion on the structure, composition, and microbial load in *Listeria monocytogenes* biofilm” in CRWAD USA (December, 2020).
* Presented a poster entitled “Comparative genomic analysis of field isolates, cell culture passaged and vaccine strains of canine/Feline parvovirus” in 19th ADNAT convention, International symposium on Microbiome in Health and Disease (MICROHD 2016) organized by ICAR-NIANP, Bangalore, INDIA (February, 2016).
* Presented a poster entitled as “Cell culture adaptation of parvovirus obtained from cats” in International Conference on One Medicine One Science held in University of Minnesota, USA ​​ (April, 2016).

 **ABSTRACTS**

* Abstract published in IFT 2022 "Efficacy of eugenol nanoemulsions in inactivating Listeria monocytogenes, Salmonella Enteritidis, and Escherichia coli O157:H7 on cantaloupes".
* Participated in CAHNR Graduate research forum, 2022 " Eugenol nanoemulsion inactivates Listeria monocytogenes, Salmonella Enteritidis, and Escherichia coli O157:H7 on cantaloupes".
* Abstract as co-author in PSA 2022 "Trans-cinnamaldehyde nanoemulsions reduces Salmonella Enteritidis survival and trans-shell migration on eggs without affecting egg color or embryo development".
* Abstract as co-author in CAHNR Graduate research forum, 2022 "Antibacterial potential of Trans-cinnamaldehyde nanoemulsion for inactivating Salmonella Enteritidis in poultry drinking water system".
* Abstract as co-author in IFT2022," Application of Trans-cinnamaldehyde nanoemulsion as a natural sanitizer for inactivating Salmonella Enteritidis in poultry drinking water system".
* Abstract as co-author in IFT2022, "Application of Carvacrol, Eugenol, and Trans-cinnamaldehyde Nanoemulsions for Controlling Salmonella spp. on Fresh Produce".
* Abstract published in Institute of Food Technologists, 2021 entitled as “Eugenol modulates *Listeria monocytogenes* proteome and virulence factor critical for biofilm formation”.
* Abstract published in International Association for Food Protection, 2021 entitled as “Inactivation of *Listeria monocytogenes* on cantaloupe by eugenol nanoemulsion in combination with commercial sanitizers”.
* Abstract published in Institute of Food Technologists, 2020 entitled as “Eugenol nanoemulsion reduce biofilm formation and inactivates mature biofilm”.
* Abstract published in International Association for Food Protection, 2020 entitled as “Application of eugenol nanoemulsion for controlling *Listeria monocytogenes* biofilms in food processing environment”.
* Abstract published in Conference of Research Workers in Animal Diseases, 2020 entitled as “Effect of eugenol nanoemulsion on the structure, composition, and microbial load in *Listeria monocytogenes* biofilm”.
* Abstract published in compendium of International symposium on Microbiome in Health and Disease (MICROHD 2016) entitled as “Comparative genomic analysis of field isolates, cell culture passaged and vaccine strains of canine/feline parvovirus”
* Abstract published in compendium of International Conference on One Medicine one Science held in UNIVERSITY OF MINNESOTA, USA, 2016 entitled as “Cell culture adaptation of parvovirus obtained from cats”.

**Publications**

* Published a research paper “Eugenol nanoemulsion inactivates *Listeria monocytogenes,* *Salmonella* Enteritidis, and *Escherichia* coli O157:H7 on cantaloupes without affecting rind color”. Journal of Sustainable Food Systems. 2022. doi: 10.3389/fsufs.2022.984391.
* Co-author in the research paper “Development of novel biopolymer-based dendritic nanocomplexes for encapsulation of phenolic bioactive compounds: A proof-of-concept study”. Food Hydrocolloids. 2021.
* Co-author in the research paper “[Evaluation of a polyherbal formulation for the management of wet litter in broiler chickens: Implications on performance parameters, cecal moisture level, and footpad lesions](https://dx.doi.org/10.5455/JAVAR.2019.F379)”. Journal of Advanced Veterinary and Animal Research. 2019. doi.org/10.5455/javar.2019.f379.
* Co-author in the research paper “[Modulation of chicken cecal microbiota by a phytogenic feed additive, Stodi®: A metagenomic analysis](https://dx.doi.org/10.4103/PR.PR_8_19)”. Pharmacognosy research. 2019.
* Co-author in the research paper publication of “Full length VP2 gene analysis of canine parvovirus reveals emergence of newer variants in India”. Acta Microbiologica et Immunologica Hungarica. 2016.
* Published review paper on “Isolation and Molecular characterization of canine and feline parvovirus strains” - An updated Review. Journal of Dairy, Veterinary and Animal Research. 2016.

**HONOURS AND AWARDS**

* Awarded third prize in oral competition in IFT 2022, Food microbiology division in the honor of Z. John Ordal.
* Received UConn Graduate School Conference Participation Award, 2022.
* Finalist in the IFT graduate student oral competition 2021.
* Received travel award of $1000 from University of Minnesota for poster presentation in the International Conference on One Medicine One Science held in University of Minnesota, USA (2016, March).

**TEACHING EXPERIENCE**

* Guest lecture in “Bacterial Identification Techniques” in ANSC 3343 Animal Food Products.
* TA assignments
* ANSC 2271 Principles of Poultry Science, Spring 2020.
* ANSC 3343 Animal Food Products, Fall 2021.
* Trained Undergraduate students in the lab.

**EXTRACURRICULAR ACTIVITIES**

* President in IFTSA, UCONN chapter (2021-present)
* Treasurer in IFTSA, UCONN chapter (2019 – 2020)
* Member in the Poultry Association (2019 – present)
* College Joint Secretary in Student council (2011 - 2012)
* School Sports Secretary in Student council (2005 - 2006)
* Member in National Cadet Corps (2003)

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