

# DEPARTMENT OF VETERINARY PUBLIC HEALTH & EPIDEMIOLOGY



College of Veterinary Science & Animal Husbandry
Navsari Centre (Kamdhenu University), Gandhinagar
Eru Char Rasta, Vijalpore, Ta: Jalalpore, Dist. Navsari - 396450

## **Teaching Faculty in Department**

Sr N o.	Name	Designa tion	Contact Details	Joini ng Year in NAU	Qualifica tion	Total Experie nce	Publicat ions Researc h Papers
1	Dr. C.V. Sava lia	Profess or and Head	9427856293 cvsavalia1@kamdhenuuni.edu.in	201	Ph.D.	33 years	40
2	Dr. R. Kum ar	Assista nt Profess or	9723902456 rajeevkumar2@kamdhenuuni.edu. In	201	Ph.D.	09 Years	25
3	Dr. Dee pti N. Nay ak	Veterin ary Officer	9099068324deeptinayak3@kamd henuuni.edu.in	201 5	Ph.D.	05 Years	05

#### ABOUT THE DEPARTMENT

Veterinary Public Health comprises of all the community efforts applied for prevention of diseases, protection of life and enhancing efficiency and well being of man. The pathogens of majority of human diseases have their reservoir in animals, hence prevention and control of human illness can best be practiced by controlling such conditions in animals. Veterinary Public health abridges activities of human medicine and veterinary medicine in making man healthy and elevating their standard of living.

The department of Veterinary Public Health and Epidemiology was started under establishment of Vanbandhu Veterinary College phase II programme (Year2010-11) with the recruitment of professor and laboratory technician one each, in June and April 2010, respectively.

The department imparts undergraduate teaching as per the MSVE guidelines notified by Veterinary Council of India, which covers courses on Milk & Meat hygiene, Food safety & Public Health, Veterinary Epidemiology & Zoonoses as well Environmental hygiene.

Postgraduate teaching in the subject of veterinary public health is also started from 2010-11 as per the ICAR norms for P.G.Studies in the Veterinary Sciences.

The Department is well equipped with all the instruments required for undergraduate and post graduate teaching as well as post graduate thesis research.

## **B) RESEARCH:**

## 1. AGRESCO research project:

## a. Ongoing Research: Experiment No: VPHE-1/2019 under Budget Head:

#### 12404

Sr. No.	Title	Principle Investigator and Co-PIs
1	Molecular detection of <i>Nocardia</i> species in bovine raw milk and oral lavage of immunocompromised human cases.	Dr. R. Kumar Dr. C. V. Savalia Dr. I. H. Kalyani

## b. Completed Research: Experiment No: VPHE-1/2015 under Budget Head:

#### 12404.

Sr. No.	Title	Principle Investigator and Co-PIs
1	Detection of Classical Enterotoxigenic coagulase positive <i>Staphylococcus aureus</i> inbovineraw milk, dairy food products and Handlers' hand swabs.	Dr. R. Kumar Dr. C. V. Savalia Dr. I. H. Kalyani Dr. K. K. Sharma Dr. U. V. Ramani

#### 2. POST GRADUATE RESEARCH:

# THESIS SUBMITTED FOR POST GRADUATE DEGREE

Sr. No.	Title	Name of student	Degree/Y ear	Major Guide
1	Isolation, Identification,Molecularcharacteriz ation andHumanHealthSignificance of <i>Escherichiacoli</i> fromFresh waterFish	Mr.Bhavesh I.Prajapati {Reg.No:04-0723-2010}	M.V.Sc. 2012	Dr. C. V. Savalia
2	StudyOnTheOccurrence ofsomeMetal residues ofPublic HealthConcern inFish(AsianSeabass).	Mr. RajeshN.Gelani {Reg. No:04- 0712-2010}	M.V.Sc. 2012	Dr. C. V. Savalia

3	Studies on The Prevalence and Molecular characterization of <i>Listeria</i> Spp. isolated from Foods of Animal Origin.	Ms. Deepti N. Nayak {Reg. No: 04-1128-2011}	Ph. D. 2014	Dr. C. V. Savalia
4	Sero-Epidemiology and Molecular Studies of Leptospirosis in Livestock and Human in Navsari District of South Gujarat.	Mr. Deepak P. Kshirsagar {Reg. No: 04-1193-2012}	Ph. D. 2015	Dr. C. V. Savalia
5	Studies on Occurrence of Staphylococcus aureus in milk of Surti goats.	Mr. Sagar A. Patel {Reg. No. 2040414017}	M.V.Sc. 2016	Dr. C. V. Savalia
6	Study on Incidence of Vibrio parahaemolyticus in Shrimp.	Mr. Rekhenkumar K. Patel {Reg. No. 2040415011}	M.V.Sc. 2017	Dr. C. V. Savalia
7	Isolation, identification and molecular characterisation of <i>Bacillus cereus</i> inraw chicken meat.	Mr. Alpeshkumar P.Suthar {Reg. No. 2040416015}	M.V.Sc. 2018	Dr. R. Kumar
8	Determination of <b>Fluroquinolones</b> , Gentamicin and Tetracyclineresistance pattern and residual effect against selected milk borne microorganisms from bovine raw milk.	Mr. Nishantkumar M.Patel {Reg. No. 2040417014}	M.V.Sc. 2019	Dr. R. Kumar

#### THRUST AREA OF RESEARCH:

- Bacterial food safety and risk assessment
- Zoonotic disease infection of local community interest
- Milk, Meat and Sea food of local interest

## **RESEARCH RECOMMENDATIONS: 2 (TWO)**

N Recommendation for Farmer's community/Animal owners:
o.

**Experiment No: VPHE-1/2015:** Detection of Classical Enterotoxigenic coagulase positive *Staphylococcus aureus* inbovineraw milk, dairy food products and Handlers' hand swabs.

# 1 Gujarati:

ગાયઅનેભેંસનાકાચાદૂધ,

દૂધનીબનાવટોઅનેદૂધનીહેરફેરકરતામાણસોનાહ્યશ્રારાબહુવિધએન્ટીબાયોટિક્સપ્રતિરોધકતા ધરાવતાંસ્ટેફાઇલોકોકસઓરીયસજીવાણુનુંસંભવિતજોખમપોતાનેતેમજઉપભોક્તાનેરફેછે. તેથીદૂધનીહેરફેરતથાદૂધનીબનાવટોબનાવવાનાવિવિધસ્તરેસ્વચ્છતાજાળવણીમાટે પશુપાલકોને ભલામણ કરવામાં આવે છે.

## **English:**

Bovine raw milk, dairy products and handler's hand can serve as possible risk of multiple antibiotic resistant *Staphylococcus aureus* to handlers and the consumers warranting maintenance of hygiene during milk collection, handling and processing.

**2** Recommendation for Scientific community:

Bovine raw milk and dairy products contained  $3.0x10^4$  -  $4.8x10^7$  CFU/ml (gm) coagulase positive *Staphylococcus aureus* is widely prevalent in the handlers hand. Milk, its products and handlers hand serve as possible source of health hazards of methicillin resistant *Staphylococcus aureus* and staphylococcal enterotoxins.

### PUBLICATIONS OF THE DEPARTMENT:

- R. Kumar and C. V. Savalia **(2020)**. Effect of different stress conditions on antibiotic susceptibility of coagulase positive thermo tolerant *Staphylococcus aureus.Octa Journal of Biosciences*. 8(2): 62-72.
- N.M. Patel, R. Kumar, C.V. Savalia, D.N. Desai and I.H. Kalyani (2020). Dietary exposure and risk assessment of antibiotics residues in marketed bovine raw milk. *Journal of Entomology and Zoology Studies*. 8(4): 1823-1827.
- D. N. Nayak, R. Kumar and C. V. Savalia (2020). The Socio-economic Impacts of the COVID-19 Pandemic: A Review. *International Journal of Current Microbiology and Applied Sciences*. 9(11): 562-566.
- N. N. Deepti, J. B.Solanki, C. V.Savalia and Pushpa Makwana (2020). Bacteriological Evaluation of Locally Marketed Ice Cream in Navsari City of Gujarat. *International Journal of Current Microbiology and Applied Sciences*. 9(12): 2236-2240.
- A.P. Suthar, R. Kumar, C.V. Savalia, N.M. Patel and I.H. Kalyani (2019). Toxigenic Profiling of Enterotoxin-Producing *Bacillus cereus* Isolated from Marketed Raw Chicken Meat and Human Subjects by Triplex and Multiplex PCR. *Journal of Animal Research*. 9(6): 821-829.
- N. M. Patel, R. Kumar, A. P. Suthar, C. V. Savalia, D. N. Desai and I. H. Kalyani (2019). Resistant Pattern of Therapeutics Antimicrobial Challenged on Pseudomonas aeruginosa Bacterium Isolated from Marketed Raw Buffalo Milk. *European Journal of Nutrition & Food Safety*. 9(4): 398-407.
- A.P. Suthar, R. Kumar, C. V. Savalia, N. K. Patel and R. K. Patel (2018). Determination of Microbiological quality and detection of Thermotolerant fecal E. coli in ready to use water from Navsari city of South Gujarat. *International Research Journal of Public Health*. 2(17): 01-08.
- 8 R. K. Patel, R. Kumar, C. V. Savalia and N. G. Patel (2018). Isolation of *Staphylococcus aureus* from Raw Cattle Milk and Their Drug Resistance Pattern. *International Journal of Current Microbiology and Applied Sciences*. 7(02): 836-840.
- R. K. Patel, C. V. Savalia, R. Kumar, A. P. Suthar, S. A. Patel, N. G. Patel, I. H. Kalyani and S. Gupta (2018). Determination of *Vibrio parahaemolyticus* from Retail Shrimp of South Gujarat of Navsari District and Their Drug Resistance Pattern. *International Journal of Current Microbiology and Applied Sciences*, 7(02): 2704-2710.
- R. K. Patel, C. V. Savalia, R. Kumar, I. H. Kalyani, S. Gupta and A. P. Suthar (2018). Isolation, Identification and Molecular Characterization of *Vibrio parahaemolyticus* from Shrimp Samples from South Gujarat of Navsari District. *Journal of Animal Research*, 7 (6): 01-06.
- S. A. Patel, C.V. Savalia, R. Kumar, M. A. Gamit, S. Nair, R. K. Patel and N. G. Patel (2017). Incidence of Methicillin Resistant *Staphylococcus aureus* in the Milk of Surti Goats. *International Journal of Agriculture Sciences*. 9(2): 3637-3639.

- S. A. Patel, C.V. Savalia, R. Kumar, R. K. Patel, N. G. Patel, M. A. Gamit, S. Nair (2016). Studies on Some External Sources of *Staphylococcus aureus* in Surti Goat Milk. *Advances in Life Sciences*. 5(18): 7441-7443.
- R. Kumar, S. P Singh and C.V. Savalia (2015). Overview of Emerging Zoonoses in India: Areas of Concern. *Journal of Tropical Diseases*. 3(3): 165 http://dx.doi.org/10.4172/2329-891X.1000165.
- D.N. Nayak, C.V. Savalia, D.P. Kshirsagar and R. Kumar (2015). Isolation, identification and molecular characterization of *Listeria* species from milk and milk products in Navsari city of South Gujarat. *Journal of Veterinary Public Health*. 13(1): 19-23.
- D. N. Nayak, C. V. Savalia, I. H. Kalyani, R. Kumar and D. P. Kshirsagar (2015). Isolation, identification, and characterization of *Listeria* spp. From various animal origin foods. *Veterinary World*. 8(1): 695-701.
- D. P. Krirsagar, C. V. Savalia, I. H. Kalyani, R. Kumar and D. N. Nayak (2013). Disease alert and forecasting of zoonotic diseases: An overview. *Veterinary World*, 6(11).889.
- 17 Swati Gupta and C. V. Savalia (2012) Application of biotechnology to improve livestock products. *Veterinary World*.5(10): 634-638.

# **Courses offered by the Department (Theory and Practical)**

## **Undergraduate Programme**

Sr. No.	Name of Course	Credit
1	UNIT: 1	
	VETERINARY PUBLIC HEALTH AND FOOD SAFETY	
2	UNIT-2	
	VETERINARY EPIDEMIOLOGY	
3	UNIT-3	
	ZOONOTIC DISEASES	
4	UNIT-4	
	ENVIRONMENTAL HYGIENE	

## **Master Degree Programme**

Sr.	CODE	COURSE TITLE	CREDITS
No.			
1.	VPH 601	ELEMENTS OF VETERINARY PUBLIC HEALTH	1+1
2.	VPH 602	BACTERIAL AND RICKETTSIAL AGENTS OF	2+1
		PUBLIC HEALTH SIGNIFICANCE	
3.	VPH 603	VIRAL, FUNGAL AND PARASITIC AGENTS OF	2+1
		PUBLIC HEALTH SIGNIFICANCE	
4.	VPH 604	ZOONOSES AND PUBLIC HEALTH	2+1
5.	VPH 605	PRINCIPLES OF FOOD HYGIENE AND SAFETY	2+1
6.	VPH 606	FOOD BORNE INFECTIONS AND INTOXICATIONS 2+1	
7.	VPH 607	MEAT AND MILK HYGIENE	2+1
8.	VPH 608	ENVIRONMENTAL POLLUTION AND SAFETY	3+1
9.	VPH 609	FISH, FISH PRODUCTS AND SEAFOOD HYGIENE	1+1
10.	VPH 610	BIOTERRORISM AND DISASTER MANAGEMENT	1+1
11.	VPH 691	MASTER'S SEMINAR	1+0
12.	VPH 699	MASTER'S RESEARCH	20

#### Ph.D. Programme

Sr.	CODE	COURSE TITLE	CREDITS
No.			
1.	VPH 701	CURRENT TOPICS IN VETERINARY PUBLIC	2+1
		HEALTH	
2.	VPH 702	EMERGING AND REEMERGING ZOONOSES	2+1
3.	VPH 703	QUALITY CONTROL OF ANIMAL FOOD PRODUCTS	2+1
4.	VPH 704	OCCUPATIONAL HEALTH HAZARDS	2+1
5.	VPH 705	DISPOSAL AND RECYCLING OF WASTE	2+1
6.	VPH 706	BIOHAZARDS, BIOSECURITY AND DISASTER	2+0
		MANAGEMENT	
7.	VPH 707	FOOD PLANT SANITATION	2+1
8.	VPH 708	ADVANCES IN ENVIRONMENTAL POLLUTION	2+1
		CONTROL	
9.	VPH 790	SPECIAL PROBLEM	0+2
10.	VPH 791	DOCTORAL SEMINAR I	1+0
11.	VPH 792	DOCTORAL SEMINAR II	1+0
12.	VPH 799	DOCTORAL RESEARCH	45

## **SUPPORTING STAFF:**

Sr.No.	Name	Designation	Qualification
1.	Ms. Bhavini R. Patel	Laboratory Assistant	B.Sc., DMLT
2.	Mr. Maheshbhai J. Ahir	Agriculture Assistant	Agri. Diploma

# **:: CONTACT US ::**

## **Professor & Head**

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## **PHOTO GALLERY:**





# POST GRADUATE RESEARCH LABORATORY









UNDER GRADUATE LABORATORY