



DEPARTMENT OF VETERINARY PATHOLOGY

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. No.	Name	Designation	Contact Details	Joining Year in NAU	Qualification	Total Experience	Publications Research Papers
1	Dr. P. D. Vihol	Associate Professor and Head	9428489534 drpriti@kamdhenuuni.edu.in	2009	Ph.D.	12 Years	Research papers: 40 Book chapters : 02
2	Dr. J. M. Patel	Associate Professor	9426236226 jmpatel@kamdhenuuni.edu.in	2009	Ph.D.	12 Years	Research papers: 25 Book chapters : 03

About the department

Department of Veterinary Pathology was established in the year 2008 under flagship of late Associate Director of Research (NAU, Navsari) cum Professor & Head, Dr. G. S. Rao. Department imparts under graduate and post graduate education to the students, furnishes the need of basic and applied research on various aspects of livestock health and it also serves the society by providing veterinary extension activities, health care services and expert advice on the matters of disease diagnosis. In the department, museum of gross specimens of various diseases/ condition is also under development. Museum of gross specimens of various diseases/ conditions is also maintained in the department. The department also provides diagnostic pathological services like hematology, biochemical analysis and urinalysis. Besides it also provides diagnosis through histopathological and biopsy examination, cytology and postmortem examination of animals and birds.

Research Area

- Oncology
- Histopathology and immunohistochemistry
- Toxicopathology
- Infectious and non infectious diseases of animals and birds

Projects in Brief

Sr. No.	Project title	Name of Investigators	Year of completion	Sponsoring agency
Departmental Projects				
1.	Surveillance of inorganic xenobiotic cadmium in blood or urine samples of livestock in the vicinity of industrial areas of South Gujarat.	Dr. B. J. Trangadia (PI) Dr. P. D. Vihol Dr. J. M. Patel Dr. Sonal Tripathi	2013	NAU
2.	Surveillance of bovine milk samples for prevalence of Brucella and Mycobacterium spp.	Dr. P. D. Vihol (PI) Dr. B. J. Trangadia Dr. J. M. Patel	2014	NAU
3.	Sero-diagnosis of caprine paratuberculosis in selected organized farms and panjarapoles of South Gujarat	Dr. B. J. Trangadia (PI) Dr. B.P. Brahmkshtri	2016	NAU
4.	Histopathological study on renal lesions in animals	Dr. P. D. Vihol (PI) Dr. J.M. Patel Dr. J. K. Raval Dr. H. C. Parmar Dr. J. H. Patel Dr. I. H. Kalyani	2020	NAU
5.	Serodiagnosis of <i>Peste des petits ruminants</i> (PPR) in goats from south Gujarat	Dr. J. M. Patel (PI) Dr. P. D. Vihol Dr. J. K. Raval Dr. G. M. Pandya	Ongoing	KU
Other agency projects				
1.	Establishment of Regional Animal Disease Diagnosis & Research Laboratory” (BH: 12049)	Dr. P. D. Vihol (Co-PI) Dr. J.M. Patel (Co-PI)	Ongoing	Govt. of Gujarat
2.	All India network project on fish health (AINPFH) (B.H.: 2097)	Dr. P. D. Vihol (Co-PI)	Ongoing	ICAR

Achievements and List of Research Publications

Number of PG students passed out:

No. of students M.V.Sc : 13 (Completed)

No. of students Ph. D. : 02 (Ongoing)
: 05 (Completed)

Research highlight:

- Patho-epidemiological studies on economically important diseases leptospirosis, PPR and brucellosis were carried out.
- Cancer biomarker AgNORs was studied in spontaneous canine mammary tumors. Other biomarkers like PCNA, Ki67 and VEGF were studied in induced rat mammary tumors.
- Clinicopathological studies on renal and hepatic functional status as well as and non-parasitic and ectoparasite induced dermatoses in canines
- Pathology and molecular study of *Escherichia coli* infection in poultry

List of research publications:

1. Vihol, Priti D.; Patel, J. H.; Ghodasara, D. J.; Joshi, B. P. and Prajapati, K. S. (2008). Genotoxicity studies of sodium dichromate in wistar rats. *The Indian Journal of field Veterinarians*. 4(2): 13-15.
2. Vihol, P.D.; Patel, J. H.; Varia, R.D.; Patel, J. M.; Ghodasara, D. J.; Joshi B. P. and Prajapati, K. S. (2012) . Effects of Sodium Dichromate on Haemato-biochemical Parameters in Wistar Rats. *Journal of Pharmacology and Toxicology*. 7 (1): 58-63.
3. J. M. Patel, D. V. Joshi, B. J. Patel, H. B. Patel, P. D. Vihol, A. R. Bhadaniya, V. A. Kalaria, J. H. Patel and M. C. Prasad (2013). Alpha-cypermethrin induced toxicity in wistar rats: haematobiochemical profiles and oxidative status. *Journal of Veterinary Pharmacology and Toxicology*. 12(1-2): 65-68.
4. J. M. Patel, P. D. Vihol, M. C. Prasad, I.H.Kalyani, J.K.Raval, K.M.Patel, Sushma Thirumalesh and V. Balamurugan (2014). Seroepidemiological pattern of leptospirosis in bovine of South Gujarat, India. *Veterinary World*, 7:999-1003.
5. K.K. Sharma, D.P. Kshirsagar, I.H.Kalyani, D. R. Patel, P. D. Vihol and J. M. Patel. (2015). Diagnosis of peste des petits ruminants infection in small ruminants through in-house developed Indirect ELISA: Practical considerations. *Veterinary World*, 8: 443-448.
6. Sindha M. J., Trangadia B. J., Vihol P. D., Parmar R. S. and Patel B. V. (2015). Clinicopathological evaluation of non-parasitic dermatoses in canines, *Veterinary World* 8(11): 1346-1350.
7. N. B. Patel, A.B. Folsoundar, T.K.S. Rao, R.R. Singh and J.M. Patel (2015). Effect of body cooling systems on micro-climatic variable in semi loose house for animals during hot-dry and hot-humid conditions of coastal India. *Journal of Applied and Natural Science*, (2015), 7(2): 729-733.
8. J. M. Patel, D.R. Patel, S.V.Mavadiya, J.B. Solanki, P.D.Vihol, K.K. Sharma, B .J. Trangadia and I.H. Kalyani (2015). Clinicopathological investigation of an outbreak of peste des petits ruminants in small ruminants in South Gujarat, India. *Indian J. Vet. Pathol.* (2015), 39(1): 20-23.

9. J. M. Patel, P.D. Vihol, J.K. Raval, K. M. Patel, N.F. Chaudhary, P.H. Rathod and J.H. Patel (2015). Seroprevalence of leptospirosis in clinically ailing bovine. *Journal of Animal Research*, 4:31-35.
10. Jignesh M. Patel, Mahesh C. Prasad, Priti D.Vihol, Navin B. Patel, Kartik M. Patel and Balkrushna P. Brahmkshtri (2015). Leptospirosis in Bovines: Haematobiochemical and Urine Analysis Studies. *Journal of Animal Research*, 5(3): 449-454.
11. V. S. Dabas, R.H. Bhatt, D.N. Suthar, S.K. Zhala, C.F. Chaudhari and J.M.Patel (2016). Therapeutic management of haemoprotozoan infection with reference to haematological changes in canines and bovines. *The Indian Journal of Veterinary Science & Biotechnology*, 11(4):45-48.
12. J. M. Patel, P. D. Vihol, V. S. Dabas, M.C. Prasad, J.H. Patel, C.F. Chaudhari, N.B. Patel and K.M. Patel. (2016). Seroepidemiological study of leptospirosis in buffaloes of South Gujarat, India. *Buffalo Bulletin*. 35(3): 383-388.
13. Vihol P. D., Jignesh M. Patel, Jatin H. Patel, Mahesh C. Prasad, Irsadullakhan H. Kalyani and Balkrushna P. Brahmkshtri (2016). Caprine leptospirosis: Hematobiochemical and urinalyses studies. *Veterinary World*, 9:337-341.
14. Vihol P. D., Patel J. M., Patel J. H., Prasad M. C., Kalyani I. H. and Raval J. K. (2016). Serological and clinicopathological studies on leptospirosis among sheep. *Journal of Animal Researc*. 6(4): 571-577.
15. Vihol P. D., Patel J. M., Trangadia B. J., Prasad M. C., Parmar Vijay and Brahmkshtri B. P. (2017). Urolithiasis in an Asiatic Lion (*Panthera leo persica*): A case report. *Indian J. Vet. Pathol.*, 41(1): 45-47.
16. Vihol P. D., J.M. Patel, J.H. Patel, J.K. Raval, Y.R. Patel, K.D. Thakor and P.P. Panchal (2017). Eimeria species infection in Surti goat kids. *International Journal of Science, Environment and Technology*, 6(2): 1421 – 1425.
17. Kishan K. Sharma, Irsadullakhan H. Kalyani, JogeswarMohapatra, Satish D. Patel, Dharmesh R. Patel, Priti D. Vihol, Abhijit Chatterjee, Dinesh R. Patel and Bhavesh Vyas (2017). Evaluation of the oncolytic potential of R2B Mukteshwar vaccine strain of Newcastle disease virus (NDV) in a colon cancer cell line (SW-620). *Archives of Virology*. 162(9): 2705-2713.
18. Vihol P. D., J.M. Patel, J.H. Patel, M. C. Prasad, V. S. Dabas, I. H. Kalyani and K. K. Tyagi (2017). Seroepidemiology of caprine leptospirosis in South Gujarat region of India. *Int.J.Curr.Microbiol. App.Sci.*, 6(3): 1599-1608.
19. Sharma, K. K., Vihol P.D., Kalyani, I. H., Patel D. R. and Rathod P. H. (2017). Leptospira induced abortion in goats in Southern Gujarat. *Indian Journal of Veterinary Pathology*. 41(4): 300-302.
20. Vihol P. D, J. H. Patel., J. M. Patel., V. S. Dabas., I. H. Kalyani, C. F. Chaudhari and A. C. Patel (2017). Identification of pathogenic *Leptospira* spp. carrier goats using Polymerase Chain Reaction (PCR). *Int. J. Curr. Microbiol. App. Sci.* 6(12): 2174-2183.
21. Vihol P. D, J.M. Patel, J.H. Patel, I.H. Kalyani, J.K. Raval, R.D. Varia and Pushpa H. Rathod. (2017). Serological study for detection of antileptospiral antibodies among

- goats in South Gujarat region. *International Journal of Science, Environment and Technology*, 6(2): 1019 – 1027.
22. Yash R. Patel, Jignesh M. Patel, Priti D. Vihol, I.H. Kalyani, Pramod S. Sakare, Pratik P. Panchal and Kaushik D. Thakor (2017). Seroprevalence of Peste des Petits Ruminants (PPR) in Navsari and Valsad Districts of South Gujarat. *Int. J. Curr. Microbiol. App. Sci.*, 6(8): 221-228.
 23. J.M. Patel, M.C. Prasad, P.D. Vihol, I.H. Kalyani, M.G. Prajapati, H.C. Parmar, R.D. Varia and K.M. Patel (2017). Seroprevalence of *Leptospira hardjo* in Cattle of Gujarat, India. *Int. J. Curr. Microbiol. App. Sci.*, 6(11): 1304-1310.
 24. Yash R. Patel, Jignesh M. Patel, Priti D. Vihol, I.H. Kalyani, Jayesh B. Solanki and Pratik P. Panchal (2017). Pathomorphological Studies of Peste Des Petits Ruminants (PPR) in Goats of Navsari and Valsad Districts, India. *Int. J. Curr. Microbiol. App. Sci.*, 6(12): 238-244.
 25. J.M. Patel, P.D. Vihol, M.C. Prasad, J.H. Patel, J.K. Raval and I.H. Kalyani (2017). Polymerase Chain Reaction in the Diagnosis of Spontaneous Leptospirosis in Bovines. *Int. J. Curr. Microbiol. App. Sci.* 6(12): 1723-1728.
 26. J. K. Raval, Vikas Jaiswal, J. M. Patel, P. D. Vihol, H. C. Parmar, J. H. Patel and B. P. Joshi (2018). Genotoxicity Studies of Arsenic, Lead and Their Interaction in Wistar Rats. *International Journal of Current Microbiology and Applied Sciences*. 7(11): 3536-3539.
 27. J. K. Raval., M. C. Prasad, H. C. Parmar, J. M. Patel, P. D. Vihol, J. H. Patel and I. H. Kalyani (2019). Ameliorative effects of *eugenia jambolana* seeds aqueous extract on Diabetes induced oxidative stress in rats *Haryana Vet.* 58(2), 232-235
 28. H.C. Parmar, J.K. Raval, J.M. Patel, P.D. Vihol, I.H. Kalyani and M.C. Prasad (2019). Haemato-biochemical study: induced beta cyfluthrin repeated toxicity with reversal on wistar rats. *International Journal of Current Microbiology and Applied Sciences*.8(03): 100-111.
 29. V.M. Prajapati, G.S. Rao, H.G. Vamja, R.S. Parmar and P.D. Vihol (2019). Clinicopathological assessment of renal functional status in canines. *Veterinary Research International*. 7(2): 88-91.
 30. Raval J. K., Patel J. M., Vihol P. D., Parmar Hitesh, C., Patel D. G. and Patel Jatin, H. (2019). Clinico-pathological changes in hepatozoonosis in dogs. *Int. J. Curr. Microbiol. App. Sci.* 8(11): 928-932.
 31. Vihol, P. D., JM Patel, JH Patel, JK Raval, RD Varia and PM Makwana (2020). Pathomorphological study on leptospirosis in slaughtered goats. *The Pharma Innovation*. 9(9): 84-87.
 32. Usadadia, S. V., J. M. Patel, P. D. Vihol and Urkude, A. P. (2020). Protective Effect of Quercetin on Azithromycin Induced Hepatotoxicity and Nephrotoxicity in Wistar Rats. *International Journal of Current Microbiology and Applied Sciences*. 9(09): 2926-2934.
 33. J. M. Patel, P. D. Vihol, M. C. Prasad, J. H. Patel, N. B. Patel and K. M. Patel (2020). Pathomorphological changes in vital organs of buffaloes (*Bubalus bubalis*) naturally infected with leptospirosis. *Buffalo Bulletin*. 39 (4): 483-491.

34. Pratik P. Panchal, Jignesh M. Patel, Priti D. Vihol, J. K. Raval, D. R. Patel, Nikhil Danger, I. H. Kalyani and Patel, N. M. (2020). Serotyping and Prevalence of Escherichia coli Infection in Poultry of South Gujarat based on Culture Isolation and Identification. *International Journal of Current Microbiology and Applied Sciences*. 9(10): 3876-3883.

Administrative Staff/ Laboratory staff

Mr. Pankaj A. Dhodia
Laboratory Technician
Department of Veterinary pathology





:: CONTACT US ::

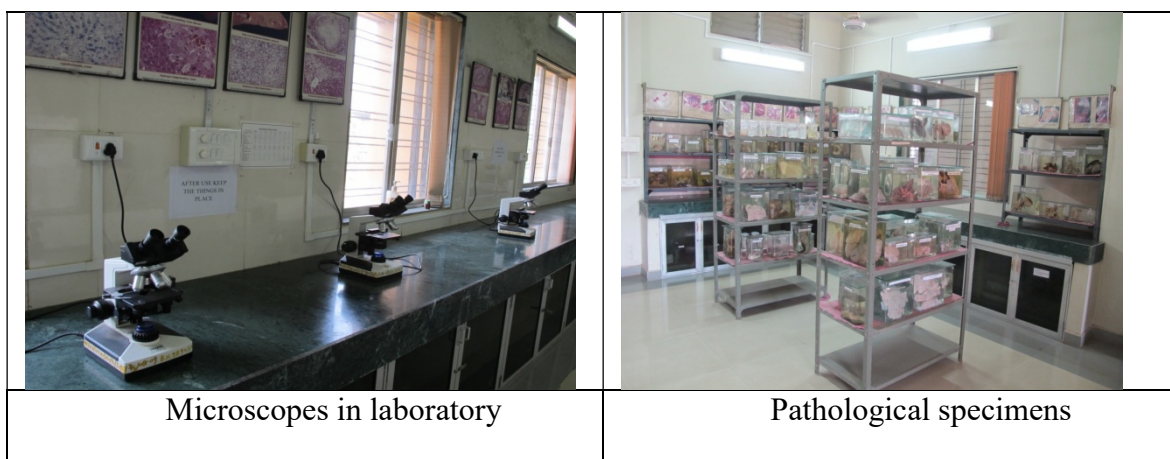
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Photo Gallery

	
Section cutting in automatic microtome	Automatic microtome
	
Tissue embedding station	Biochemical analyser



Courses offered by the Department (Theory and Practical)
Undergraduate Programme

Sr. No.	Name of Course	Credit
1	UNIT: 1 GENERAL VETERINARY PATHOLOGY	3+2
2	UNIT-2 SYSTEMIC VETERINARY PATHOLOGY	
3	UNIT-3 ANIMAL ONCOLOGY, VETERINARY CLINICAL PATHOLOGY AND NECROPSY	
4	UNIT-4 PATHOLOGY OF INFECTIOUS AND NON-INFECTIOUS DISEASES OF DOMESTIC ANIMALS	
5	UNIT-5 AVIAN PATHOLOGY	
6	UNIT -6 PATHOLOGY OF DISEASES OF LABORATORY AND WILD ANIMALS	

Master Degree Programme

Sr. No.	CODE	COURSE TITLE	CREDITS
1.	VPP 601	GENERAL PATHOLOGY	2+1
2.	VPP 602	TECHNIQUES IN PATHOLOGY	1+1
3.	VPP 603	ANIMAL ONCOLOGY	1+1
4.	VPP 604	CLINICAL PATHOLOGY	1+2
5.	VPP 605	NECROPSY PROCEDURES AND INTERPRETATIONS I	0+1
6.	VPP 606	NECROPSY PROCEDURES AND INTERPRETATIONS II	0+1
7.	VPP 607	SYSTEMIC PATHOLOGY	2+1
8.	VPP 608	PATHOLOGY OF INFECTIOUS DISEASES OF DOMESTIC ANIMALS	2+1
9.	VPP 609	TOXICOPATHOLOGY	2+1
10.	VPP 610	AVIAN PATHOLOGY	2+1
11.	VPP 611	PATHOLOGY OF LABORATORY ANIMALS, FISH AND WILD ANIMALS	2+1
12.	VPP 612	VETEROLEGAL PATHOLOGY	1+0
13.	VPP 691	MASTER'S SEMINAR	1+0

14.	VPP 699	MASTER'S RESEARCH	20
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Ph.D. Programme

Sr. No.	CODE	COURSE TITLE	CREDITS
1.	VPP 701	PATHOLOGY OF NUTRITIONAL AND METABOLIC DISTURBANCES	2+1
2.	VPP 702	ADVANCES IN TOXICOPATHOLOGY	2+1
3.	VPP 703	ADVANCES IN DIAGNOSTIC PATHOLOGY	1+2
4.	VPP 704	ULTRASTRUCTURAL PATHOLOGY	1+1
5.	VPP 705	IMMUNOPATHOLOGY	2+1
6.	VPP 706	PATHOLOGY OF IMPORTANT AND EMERGING DISEASES OF PETS AND LIVESTOCK	1+1
7.	VPP 707	ADVANCES IN AVIAN PATHOLOGY	2+1
8.	VPP 708	PATHOLOGY OF FUNGAL DISEASES	2+1
9.	VPP 709	MOLECULAR PATHOLOGY OF CELL INJURY	2+1
10.	VPP 710	EXPERIMENTAL PATHOLOGY	1+1
11.	VPP 790	SPECIAL PROBLEM	0+2
12.	VPP 791	DOCTORAL SEMINAR I	1+0
13.	VPP 792	DOCTORAL SEMINAR II	1+0
14.	VPP 799	DOCTORAL RESEARCH	45