





Name of Department: Veterinary Pathology

Profile:

The Department of Veterinary Pathology came into existence in 1964. It started with under graduate teaching. Gradually diagnostic facilities were created for post mortem examination, histopathology and clinical pathology. P.G. teaching was started in the year 1980. The Department imparts teaching in under graduate, post graduate and doctorate degree programmes. A total of 85 post graduates and 9 doctorate students have successfully obtained their degree till to date. This is the only Department in the state providing facility for poultry disease diagnosis and subsequent prevention and control measures to the poultry farmers. The department has also significantly contributed to avian pathology and toxico pathology. The department has at present two research schemes for the benefit of poultry and animal owners.

Faculties:

Sr. No	Name with photograph	Designation	Phone (O)	Cell No	Inter Com No.	E-Mail
1	 Dr. B. P. Joshi	Professor and Head	225939	9428489834	939	b4bpjoshi@aau.in b4pjoshi@gmail.com
2	 Dr. D. J. Ghodasara	Professor	225940	9427403606	940	dineshghodasara@aaau.in dinhodasara@gmail.com
3	 Dr. Purnima B. Jani	Associate Professor	225941	9825160825	941	pbjani64@yahoo.co.in

4	 Dr. C.J. Dave	Assistant Professor	225940	9427547916	940	c4cjDave@gmail.com
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Major Activities:

I. Teaching

A. 1. UG Courses (Old VCI)

Year	Semester	Course No.	Credit	Course title
II	III	VPP-211	1+1=2	General Veterinary Pathology
	IV	VPP-221	2+1=3	Systemic Veterinary Pathology
III	V	VPP- 311	2+1=3	Special Veterinary Pathology
	VI	VPP-321	1+1=2	Avian Pathology
		VPP-322	1+1=2	Aquatic Animal Diseases, Health care and Management
IV	VII	VLD- 411	0+1=1	Veterinary Clinical Biochemistry and Laboratory Diagnosis - I
	VIII	VLD- 421	0+1=1	Veterinary Clinical Biochemistry and Laboratory Diagnosis - II

2. U.G Courses (New VCI, MSVE-2016)

Veterinary Pathology: Credit: 4(T) + 2(P) = 6

Year	Unit	Title
Second Year	1	General Veterinary pathology
	2	Systemic Veterinary Pathology
	3	Animal Oncology, Veterinary clinical pathology and Necropsy
	4	Pathology of infectious and non infectious diseases of domestic animals
	5	Avian pathology
	6	Pathology of diseases of laboratory and wild animals

B. PG Courses

COURSE NO.	CREDIT	TITLE
VPP 601	2+1	General Pathology
VPP 602	1+1	Techniques in pathology
VPP 603	1+1	Animal oncology
VPP 604	1+2	Clinical pathology
VPP 605	0+1	Necropsy procedures and interpretations –I
VPP 606	0+1	Necropsy procedures and interpretations –II
VPP 607	2+1	Systemic pathology
VPP 608	2+1	Pathology of infectious diseases of domestic animals
VPP 609	2+1	Toxicopathology
VPP 610	2+1	Avian pathology
VPP 611	2+1	Pathology of laboratory animals, fish and wild animals
VPP 612	1+0	Veterolegal pathology
VPP 691	1+0	Master's seminar
VPP 699	20	Master's research
VPP 701	2+1	Pathology of nutritional and metabolic disturbances
VPP 702	2+1	Advances in toxicopathology
VPP 703	1+2	Advances in diagnostic pathology
VPP 704	1+1	Ultra structural pathology
VPP 705	2+1	Immunopathology
VPP 706	1+1	Pathology of important and emerging diseases of pets and livestock
VPP 707	2+1	Advances in avian pathology
VPP 708	2+1	Pathology of fungal diseases
VPP 709	2+1	Molecular pathology of cell injury
VPP 710	1+1	Experimental pathology
VPP 790	0+2	Special problem
VPP 791	1+0	Doctoral seminar - I
VPP 792	1+0	Doctoral seminar - II
VPP 799	45	Doctoral research

II. Research

A. Research Projects Completed

Cancer of horn in cattle and buffaloes, GAU Plan scheme (1978-1992).

Under the scheme, for the first time, the site and cells of origin of cancer of horn was identified and the cancer was graded as low malignant squamous cell carcinoma. Notable contribution was also made on immunopathological, hormonal and histopathological studies on bovine horn cancer.

B. Research Projects on going

1. Title of the project: Etiopathological studies on mortality in broilers

Agency: AAU

Period: AAU Plan Scheme since 1999.

Budget Outlay: Budget Head No. 12992

Under the scheme, annually about eight thousand poultry post mortems of broiler birds are performed at the department and subsequent preventive and treatment guide lines are given to the poultry farmers. Detailed pathological studies on prevailing broiler diseases in the state i.e. New castle disease, Marek's disease, Infectious bursal disease, Low pathogenic avian influenza, Infectious bronchitis, Inclusion body hepatitis, Avian mycoplasmosis, coli septicemia, Salmonellosis, Visceral gout, Ascites syndrome were carried out from time to time. Toxicopathological studies on different non steroidal anti inflammatory drugs were also studied in broiler birds.

PI/Co PI: Professor and Head and other staff of the department.

2. Title of the project: Project for investigation and research in Veterinary Science and Animal Husbandry, Anand.

Sub Title: Carcass Collection Scheme

Agency: AAU

Period: AAU Non plan scheme since 21.06.1975

Budget Outlay: B.H. 5301

Under the scheme, post mortem examination of large and small animals, wild animals and layer poultry birds is being carried out. The scheme provides useful materials for UG and PG teaching. The scheme also provides diagnostic service by biopsy and histopathological examination of tissues received from field veterinarians of the state Animal Husbandry department as well as dairy cooperatives.

PI/ CoPI: Professor and Head and other staff of the department.

B. Number of M.V.Sc. & Ph.D. degrees awarded

M.V.Sc.: 85

Ph.D.: 9

Research Publications: 115

C. Research Recommendations: 4

1. Recommendation for the farmers:

Visceral gout in broiler chicks differs in its susceptibility among various commercial strains. Its incidence is higher during winter season comparing to other seasons and feeding of ground maize as the sole feed for 24 hours at the onset of outbreaks effectively reduces the mortality of this disease.

2. Recommendation for field veterinarians and poultry farmers:

Diclofenac sodium proved highly nephrotoxic to broilers leading to gout with high mortality. Field veterinarians and poultry farmers are advised not to use diclofenac sodium in any form of treatment to broilers.

3. Recommendation for field veterinarians and poultry farmers:

Ketoprofen administered orally to broiler chicks @ 5, 15 and 25 mg/kg body weight was found nephrotoxic causing 8, 20 and 40% mortality respectively by inducing lesions of visceral gout. The effect is similar to that of diclofenac.

4. Recommendation for field veterinarians and poultry farmers:

Adulteration of melamine in broiler feed at the level of 0.25% and 0.50% was found nephrotoxic causing 4 % and 16% mortality respectively with deposition of melamine-uric acid crystals in the kidneys. Poultry farmers, feed manufacturers and raw material traders should be vigilant for intentional adulteration of melamine as a source of protein in the poultry feed ingredients.

5. Recommendation for field veterinarians

The Inclusion Body Hepatitis- Hydro Pericardium Syndrome (IBH-HPS) vaccines having serotype-4 virus are also protective against serotype-11 (IBH-HPS) virus prevalent in the commercial broilers. Hence the field veterinarians are advised to recommend serotype-4 IBH vaccines against prevalent serotype-11 IBH virus in the commercial broilers.

III. Extension

1. Refresher Training course for field Veterinarians (ASCAD): 5
2. VCI Training: 3

A. Seminar/Symposia/Conference/Workshop organized

1. National IAVP symposium on “Recent advances in animal pathology and poultry diseases” (1994).
2. Poultry Farmers and Industry Academic Meet, as a part of World poultry Science Association programme (1996).
3. IAVP, Gujarat Chapter, Annual Meet & Technical Seminar, 2010.
4. IAVP, Gujarat Chapter, Annual Meet & Technical Seminar, 2011.
5. Veterinary Pathology Congress 2014 and National Symposium on “ Impact of climate change on Patho biology of Diseases of Animals, Poultry and Fish“ (2014)

B. Diagnostic Services

1. Department is providing diagnostic services by performing post mortem of animals and histopathological examination of samples received from field regularly.
2. Department is performing poultry postmortem everyday and provides diagnostic service and advice for control and prevention of diseases to poultry farmers.

3. During disease outbreaks, department is providing diagnostic service by field investigation in collaboration with other department.

Krishi Mahotsav

Every year the scientists from pathology department are participating in Ravi and Kharif Krishi Mahotsav.

C. No. of Publications

1. Popular articles:	15
2. Books:	2
3. Booklets:	1
4. Souvenir:	2
5. Compendium:	2
6. Lab Manuals:	3
7. Training Manuals:	4

Achievements:

A. Awards/Honours/Recognitions/Appreciations

1. Junior Research Fellow Award, ICAR-1977.
2. Hari Ohm Ashram Award for Best Research Paper-1990.
3. Outstanding Poultry Pathologist Award, IAVP-1999., 2000, 2015
4. A.K. Bhargava Memorial Award for Best Research Article in Ind. J. Vet. Surgery-2004
5. Appreciation certificates for best poster, ISVS-2007
6. Exemplary Vet. Award by Gujarat Veterinary Association-2013.
7. Award of Fellow of IAVP-2013.
8. Senior Research Fellow Award, ICAR-1986
9. Best paper in veterinary science, Krushigovidya-1992-93
10. Senior Research Fellowship Award, CSIR, New Delhi-1992.

B. Assignments as Subject Expert / Member (Selection Committee/Advisory Board)

1. Subject Expert in selection committee of Assistant Professor, Associate Professor and Professor at SAU's Of the State in the subject Veterinary pathology
2. Paper setter for Agricultural Scientist's Recruitment Board, New Delhi for NET Exam In the subject Veterinary Pathology

C. Other Recognitions

1. In charge Post Graduate Teaching Chairman
2. In charge Class Room

Future Thrust Areas:

1. Animal oncology and cytopathology
2. Toxicopathology
3. Molecular Diagnosis of Animal and Poultry diseases