

Dr. Dhruv Nitinkumar Desai

BVSc & AH (DVM), MVSc (MS), PhD

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Qualifications:

Degree	Year	College/University	Grade Point	Percentage	Class
Academic					
S.S.C. (10 th)	2008	Gujarat Secondary & Higher Secondary Education Board, Gandhinagar, India	--	80.31%	Distinction
H.S.C.E.(12 th) (10+2)	2010	Gujarat Secondary & Higher Secondary Education Board, Gandhinagar, India	--	73.00%	Distinction
B.V.Sc. & A.H. (Bachelor of Veterinary Science and Animal Husbandry) (DVM)	2015	College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari, Gujarat, India	7.87 /10	78.70 %	Vice Chancellor Gold Medal, Best Internee Award
<i>Rotational Internship as a part of fulfilment of B.V.Sc. & A. H</i>					
M.V.Sc. (Master of Veterinary Science)	2017	ICAR-Indian Veterinary Research Institute (IVRI), Deemed University, Izatnagar, Bareilly, U.P., India	8.223 /10	82.23%	First Class with Distinction
Major subject: Veterinary Immunology Minor subject: Animal Biotechnology					
Ph.D. (Doctor of Philosophy)	2020-2021	College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari, Gujarat, India	8.72 /10	87.20%	Distinction
Major subject: Veterinary Microbiology Minor subject: Veterinary Pathology					

GATE (Graduate Aptitude Test for Engineering)	2017	IIT-Roorkee (On behalf of National Coordination Board, MHRD,GOI)	Gate Score: 386	Rank: 1411/10611	Qualified
National Eligibility Test (NET) in Veterinary Microbiology	2018	ICAR-Agricultural Scientists Recruitment board	--	63.33%	Qualified
Post Graduate Diploma in Dairy Entrepreneurship (PGDDE)	2019	Directorate of Distance Learning, Kerala Veterinary and Animal Science University, Kerala	8.43 /10	84.30%	First class with distinction
Certificate Courses/ National & International MOOC/ Certificate Test					
Course on computer Concepts (CCC)	2016	National Institute of Electronics and Information Technology(DOEACC Society)	B Grade	--	B Grade
MOOC on Vaccinology	2017	Institute Pasteur, Paris	--	Qualified	Qualified
MOOC on Teaching Management	2017	ICAR-National Academy of Agricultural Research Management (NAARM)	--	Qualified	Qualified
Certificate Course on Understanding Climate Change	2017	Young African Leaders Initiative Award (YALI NETWORK)	--	Qualified	Qualified
Certificate Course on Understanding Human Rights	2018	Young African Leaders Initiative Award (YALI NETWORK)	--	Qualified	Qualified
Certificate Course on Understanding Renewable Energy	2018	Young African Leaders Initiative Award (YALI NETWORK)	--	Qualified	Qualified
Certificate Course on Understanding Rights of Women and Girls	2018	Young African Leaders Initiative Award (YALI NETWORK)	--	Qualified	Qualified
World Health Organisation (WHO) MOOC on Antimicrobial Stewardship: A competency-based approach	2018	World Health Organisation (WHO)	--	Qualified	Qualified
World Health Organisation (WHO) MOOC on Influenza sentinel surveillance training	2018	World Health Organisation (WHO)	--	75.7%	Qualified
Veterinary Disaster Management	2018	World Veterinary Association	-	-	Completed
Clinical Management of Chronic Cough	2018	World Veterinary Association	-	-	Completed

The World Organisation For Animal Health And its Role In Animal Welfare	2018	World Veterinary Association	-	-	Completed
Paratuberculosis bovina	2018	World Veterinary Association	-	-	Completed
Zooeyia: An Essential Component of One Health	2018	World Veterinary Association	-	-	Completed
MOOC on Dynamics of Teaching-learning	2018	ICAR-National Academy of Agricultural Research Management (NAARM)	--	Qualified	Qualified

Professional Experience

- Post DVM, 7 years of experience in Research, Clinics, Teaching and Consultancy. As a Gold Medallist Veterinarian and PhD, I am passionate about animal and human health.

- My expertise area are:
Microbiology, Virology, Bacteriology, Immunology, Diagnosis, Vaccines, Cancer diagnostic, Animal and Veterinary Science.

- I have reviewed for following Journals:
Viruses, Veterinary Sciences, Pathogen, International Journal of Molecular Sciences, Plos One, BMC Infectious Disease, Animal Diseases, Frontiers in Microbiology, Advances in Animal and Veterinary Sciences, Biomedical and Pharmacology Journal, American Journal of Animal and Veterinary Sciences, International Journal of Agriculture Sciences, Journal of Pure and Applied Microbiology, Pakistan Veterinary Journal, Veterinary World, Advances in Microbiology, American Journal of Infectious Diseases, Asian Journal of Research in Biosciences, Asian Journal of Research in Infectious Diseases, Asian Research Journal of Agriculture, Current Journal of Applied Science and Technology, International Journal of Pathogen Research, International Journal of Tropical Disease and Health, Journal of Advances in Medicine and Medical Research, Journal of Experimental Agriculture International.

- Editors for many Journals,

Currently:

I am editing the special issue in Vaccines:

Special Issue "Novel Vaccines for Infectious Pathogens"

https://www.mdpi.com/journal/vaccines/special_issues/BXQ627FQH5

Veterinary Clinical Microbiology Resident/Lecturer (Aug, 2022- Present)

Actively engaged with different activities like research, clinical lab diagnostic, consultancy, didactic lecture, mentoring rotating student etc.

- 1) Leadership role
- 2) Research project: Antimicrobial Drug Resistance detection/surveillance and its pathogenic bacterial comparative genome analysis
 - a. To identify the emerging and prevalent drug resistance among the pathogenic bacteria.

- b. To analyse comparative genome of these bacteria

Therefore, the data generated from this study will help to scientist, veterinarian and all other potential organization, which directly can help at the field level.

- 3) (For the next year) Zoonotic virus and COVID-19 surveillance in wild and livestock animal.
 - a. To detect the remnant of zoonotic viruses among the animal population

The research would help in preparedness, mitigation, vaccine development, diagnosis development and policy making for the zoonotic disease.

Research Experience as Post Doctoral Scientist (Aug, 2021- Aug, 2022)

- 1) I was working on generation of patient-derived cell models (Cancer Diagnosis) to study drug sensitivity, disparities and development of personalized medicine against prostate cancer using conditional reprogramming of cells (CRC) technology invented by Dr. Liu.
- 2) Role of telomerase and telomeres in virus especially in HPV and cancers.

Research experience during Doctoral

- 1) **Doctoral research work** on “*Development of Polymerase spiral reaction (PSR) technique for rapid visual detection of microorganism*” (*Canine distemper virus and Rotavirus A*) under the guidance of Dr. I. H. Kalyani, Professor and Head, Department of Veterinary Microbiology, College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari-396450, Gujarat, India.
- 2) Research assistant (four years) under the state level funded Scheme “**Establishment of regional animal disease diagnosis & research laboratory**” to Department of Veterinary Microbiology for the establishment of diagnostic lab. Under this scheme, I worked in bacteriology, virology, serology and molecular diagnostic section where I was the part of diagnostic team.
- 3) I worked on following departmental research projects:
 - 1) Sero-surveillance and molecular detection of *Brucella* organism from cattle and buffaloes of the organized and unorganized farms located in South Gujarat.
 - 2) Prevalence of *Canine Leptospirosis* from Navsari District of South Gujarat, India. (co-researcher under supervision of Dr. I. H. Kalyani and Dr. D. R. Patel)
 - 3) Isolation and Molecular characterisation of *Canine distemper Virus* from dogs. (Sole researcher under supervision of Dr. I. H. Kalyani and Dr. D. R. Patel)
 - 4) Isolation and Molecular characterisation of *Canine parvovirus* from dogs of south Gujarat. (Sole researcher under supervision of Dr. I. H. Kalyani)

Research experience during Master

- **Master's research work** on “*Evaluation of HA2+M2e Recombinant Fusion Protein as Mucosal Vaccine Candidate against Avian Influenza virus in Chicken*” under the guidance of Dr. Sandeep Bhatia, National Fellow, Principal Scientist, Immunology Lab, ICAR- National Institute of High Security Animal Disease (NIHSAD) (*Formerly known as HSADL*), Bhopal, M.P. INDIA [*World Organisation for Animal Health (formerly known as OIE) referral lab for Avian Influenza*]
- More than 12 months of experience in BSL 3+ and ABSL+3 OIE referral lab.
- Special Problem “*Standardization and growth kinetic study of reverse genetics based rgH5N2 clade 2.3.2.1 avian influenza virus*”.

Research Proposal presented

- Development and Standardization of Polymerase Spiral Reaction (PSR) for Detection of Rotavirus: A novel Isothermal amplification method at West Zone Research Convention of National Level competition.

Professional experience in Teaching

1. I have three years of teaching experience under the supervision of **Dr. I. H. Kalyani, Professor and Head**, Department of Veterinary Microbiology, College of Veterinary Science and A.H., NAU, Navsari.

Seminar delivered

1. Microbiota Predicts side effect of Immunotherapy. (*M.V.Sc Major Credit Seminar*)
2. Anti-TNF-alpha Therapy. (*M.V.Sc Minor Credit Seminar*)
3. Polymerase Spiral Reaction (PSR) and Polymerase Cross-link Spiral reaction (PCLSR): a novel Approaches in Isothermal Nucleic Acid Amplification Method. (*Ph.D. Major Credit Seminar*)
4. A crosstalk between neural reflexes, inflammation and immunity. (*Ph.D. Minor Credit Seminar*)

Publications

[Google Scholar](#)
[ResearchGate](#)
[Publons](#)

Research articles:

1. Rana, J., Patel, S.K., Agrawal, A., Govil, K., Singh, A., Pandey, M.K., Desai, D.N. and Tiwari, S.P., 2022. Monkeypox: A global threat to domestic and wild animals– Correspondence. *International Journal of Surgery (London, England)*, 107, p.106974.
2. Josh, V. R., Jhala, M. K., Bhandari, B. B., Mathakiya, R. A., & Desai, D. N. (2022). Sero-surveillance of Canine Distemper in Dogs. *The Indian Journal of Veterinary Sciences and Biotechnology*, 18(3), 101.
3. Tumlam, U. M., Desai, D. N., Pawade, M. M., Kamdi, B. P., & Muglikar, D. M. (2022). Phylogenetic Analysis and Antimicrobial Resistance of Escherichia coli Isolated from Diarrheic Piglets. *The Indian Journal of Veterinary Sciences and Biotechnology*, 18(3), 120.
4. Joshi, V. R., Jhala, M. K., Bhandari, B. B., Nimavat, V. R., & Desai, D. N. (2022). Comparison of Lateral Flow Assay and RT-PCR for Detection of Canine Distemper Virus in Dogs. *The Indian Journal of Veterinary Sciences and Biotechnology*, 18(3), 80.
5. Tumlam, U. M., Desai, D. N., Pawade, M. M., Mhase, P. P., & Muglikar, D. M. (2022). L1 gene based Molecular Characterization of Bovine papillomavirus type 1 (BPV1) isolated from cutaneous warts of cattle, Maharashtra (India).
6. Parmar, A. B., Patel, V. R., Patel, J. M., Ramani, U. V., & **Desai, D. N.** (2022). Efficacy of dietary quercetin supplementation with high-energy diet model in broilers: implications on zootechnical parameters, serum biochemistry, antioxidant status, patho-morphology and gene expression studies. *Animal Production Science*, 62(6), 554-571.
7. **Desai, D.**, Kalyani, I., Solanki, J., Patel, D., Makwana, P., Sharma K., Vala, J., and Muglikar D. (2021). Serological and nucleocapsid gene based molecular characterization of canine distemper virus (CDV) isolated from dogs of southern Gujarat, India. *Indian Journal of Animal Research*. DOI: [10.18805/IJAR.B-4232](https://doi.org/10.18805/IJAR.B-4232)
8. Kalaiyarasu S, Bhatia S, Mishra N, Senthil Kumar D, Kumar M, Sood R, Rajukumar K, Ponnusamy B, **Desai D** and Singh VP (2021) Elicitation of Highly Pathogenic Avian Influenza H5N1 M2e and HA2-Specific Humoral and Cell-Mediated Immune Response in Chicken Following Immunization With Recombinant M2e–HA2 Fusion Protein. *Front. Vet. Sci.* 7:571999. doi: 10.3389/fvets.2020.571999
9. Pandey, G., **Desai, D.**, Tiwari, A., Mishra, A. and Kumar, R. (2021) *In silico* Prediction of Structure, Physico-chemical Properties, and Antigenicity of Fiber Protein of a Fowl Adenovirus (FAdV-D) Field Isolate. *Int.J.Curr.Microbiol.App.Sci.* 10(02): 1396-1401
10. Ghoke, S.S., Sood, R., Kumar, N., Pateriya, A.K., Bhatia, S., Mishra, A., Dixit, R., Singh, V.K., **Desai, D.N.**, Kulkarni, D.D. and Dimri, U. (2018). Evaluation of antiviral activity of Ocimum sanctum and Acacia arabica leaves extracts against H9N2 virus using embryonated chicken egg model. *BMC complementary and alternative medicine*, 18(1): 174.

11. Mavadiya, S., Patel, R., Mehta, S., Vala, J., Parmar, S., Kalyani, I., **Desai, D.** and Solanki, J. (2021). Sero-epidemiological study of equine piroplasmiasis in horses of South Gujarat (India). *J. Anim. Res.*, 11(1): 105-109.
12. **Desai, D.**, Makwana, P., Solanki, J., Kalyani, I., Patel, D., Mehta, S., Mavadiya, S., Vala, J., & Parmar, S. (2020). Detection and Prevalence of Canine Leptospirosis from Navsari District of South Gujarat, India. *Microbiology Research Journal International*, 30(9), 103-110. <https://doi.org/10.9734/mrji/2020/v30i930269>
13. **Desai, D.**, Kalyani, I., Patel, D., Makwana, P., Solanki, J. and Vala, J. (2020). Rapid detection based prevalence of canine corona virus (CCoV) and canine parvo virus (CPV) infection in diarrheic dogs in South Gujarat. *Indian Journal of Veterinary Science and Biotechnology*, 16(1): 41-43.
14. **Desai, D.**, Kalyani, I., Ramani, U., Makwana, P., Patel, D., and Vala, J. Evaluation of three different methods of viral DNA extraction for molecular detection of canine parvo virus-2 from faecal samples of dogs. *Journal of Entomology and Zoology Studies*, 8(3): 479-481.
15. Makwana, P.M., Kalyani, I.H., **Desai, D.**, Patel, J.M., Solanki, J.B., Vihol, P.D., Patel, D.R., Muglikar, D.M. and Sakhare, P.S. (2020) Detection of bovine rotavirus (BRV) infection in neonatal calves of in and around Navsari district of South Gujarat, India. *Journal of Entomology and Zoology Studies*, 8(2): 1092-1097.
16. Makwana, P. M., Kalyani, I. H., and **Desai, D.** (2020). Isolation of bovine rotavirus in MDBK cell line from diarrhoeic calves of Navsari district. *The Pharma Innovation Journal*, 9(5): 222-225.
17. Patel, N. M., Kumar, R., Savalia, C.V., **Desai, D. N.**, and Kalyani I. H. (2020). Dietary exposure and risk assessment of antibiotics residues in marketed bovine raw milk. *Journal of Entomology and Zoology Studies*, 8(4): 1823-1827.
18. Sharma, K. K., **Desai, D. N.**, Tyagi, K. K., and Kalyani, I. H. (2019). Bacteriological and molecular diagnosis of caseous lymphadenitis in goats at an organized farm. *Indian Journal of Small Ruminants (The)*, 25(1), 124-127.
19. Tumlam, U. M Ingle, V. C., **Desai D. N.** and Warke, S. R. (2019). Molecular characterization and phylogenetic analysis of rotavirus of human infants, calves and piglets. *Journal of Entomology and Zoology Studies*; 7(4): 956-960.
20. Muglikar, D. M., I. H. Kalyani, **Dhruv Desai**, J. M. Patel, D. R. Patel, Pushpa Makwana and Solanki, J. B. (2019). Serotyping and Antimicrobial Susceptibility Pattern of Avian Pathogenic Escherichia coli. *Int.J.Curr.Microbiol.App.Sci.* 8(12): 505-511.
21. Patel, N. M., Kumar, R., Suthar, A. P., **Desai, D. N.** and Kalyani, I. H. (2019). Resistant Pattern of Therapeutics Antimicrobial Challenged on Pseudomonas aeruginosa Bacterium Isolated from Marketed Raw Buffalo Milk. *European Journal of Nutrition & Food Safety*, 398-407.
22. Pramod Sakhare, Irshadullahkhan Kalyani, Priti Vihol, Kishan Sharma, Jayesh Solanki, **Dhruv Desai** and Pushpa Makwana. (2019). Seroepidemiology of Peste Des Petits Ruminants (PPR) in Sheep and Goats of Southern Districts of Gujarat, India. *Int.J.Curr.Microbiol.App.Sci.* 8(11): 1552- 1565.

23. Dharmesh R. Patel, Irsadullakhan H. Kalyani, Bhavesh J. Trangadia, Kishan K. Sharma, Pushpa M. Makwana, **Dhruv Desai**, Dushyant Muglikar and Pramod S. Sakhare. 2018. Detection of Bovine Herpesvirus-1 Infection in Bovine Clinical Samples by Direct Fluorescent Antibody Test. *Int.J.Curr.Microbiol.App.Sci.* 7(11): 2229-2234.
24. Chaudhari, S.V., Joshi, B.P., **Desai, D.N.**, Bhandari, B.B., Choudhary, K.R. and Madhwal, A. (2017). Isolation and characterisation of *E. coli* infection from the bronchial plug of broiler birds associated with respiratory diseases. *Adv. Anim. Vet. Sci.* 5(8): 334-341.
25. Chaudhari, S.V., Joshi, B.P., **Desai, D.N.**, Ghodasara, D.J., Gondaliya, R.B., Choudhary, K.R. and Madhwal, A. (2017). Prevalence of perianal gland adenoma in canines in Gujarat. *Life sciences leaflets*, 91: 60-65.

Research Articles (Accepted/Submitted/in review/in progress):

1. **Desai, D.**, Kalyani, I. *et al.*, Development of reverse transcription polymerase spiral reaction (RT-PSR) for rapid visual colorimetric based detection of *canine distemper virus* isolated from dogs and its application on clinical samples. (**in progress**) (**Frontiers in Microbiology**)
2. **Desai, D.**, Kalyani, I. *et al.*, Development of reverse transcription polymerase spiral reaction (RT-PSR) for visual colorimetric based detection of *Rotavirus A* and its application on neonatal calf diarrhoea samples. (**in progress**) (**Frontiers in Microbiology**)
3. Molecular Characterisation and Phylogenetic analysis of *canine distemper virus* reveals distinct characteristic within H gene. (**in progress**)
4. **Desai D. N.**, Muglikar D. M., Kalyani I. H., Patel D. R. Whole genome sequence analysis of *E. coli* O157:H7 zoonotic important isolate recovered from chicken. (**in progress**)

Review articles:

1. **Desai, D. N.**, Kalyani, I. H., Muglikar, D. M. and Chaudhari, S. V. (2019). Prevention and Control Measures for Occurrence of Swine Flu Pandemic by One Health Strategy. *Raksha Technical Review.* 8(2): 23-26.
2. Bhinsara, D.B., M. Sankar, **D.N. Desai**, J.J. Hasnani, P.V. Patel, N.D. Hirani and Chauhan, V.D. (2018). Benzimidazole Resistance: An Overview. *Int. J. Curr. Microbiol. App. Sci.* 7(02): 3091-3104.
3. Pushpa Makwana, Irshadullahkhan Kalyani, **Dhruv Desai**, Dharmesh Patel, Pramod Sakhare and Dushyant Muglikar. (2018). Role of Adjuvants in Vaccine Preparation: A Review. *Int.J.Curr.Microbiol.App.Sci.* 7(11): 972-988.
4. Bhinsara, D.B., Sankar, M., **Desai, D. N.**, Hasnani, J.J., Patel, P.V., Hirani, N.D. and Chauhan, V.D. (2018). Anthelmintic Drug-Resistant Detection Methods: A Brief Overview. *Int. J. Adv. Biol. Res.* 8(4): 433-437.

Review Articles (Accepted/Submitted/in review/in progress):

1. Application of Conditionally reprogrammed cell in Prostate Cancer.

2. Polymerase Spiral Reaction technique: the new edge isothermal amplification technique.

Technical articles:

1. Trangadia, B. J., Patel, D. R. and **Desai, D. N.** (2017). Rabies: A Fatal Zoonosis. *In* Technical Seminar on Rabies: Zero by 30, pp. 28-29.
2. **Desai, D. N.**, Kalyani, I. H. and Muglikar, D. M. (2018). One Health Approach for Prevention and Control of Swine Influenza. *In* Technical Seminar on One Health, pp. 11-16
3. **Desai, D. N.**, Kalyani, I. H. and Muglikar, D. M. (2018). One Health Initiative for Management of Wildlife Disease. *In* Technical Seminar on One Health, pp. 17-20.

Popular articles: (Articles were invited from the respective magazine/webmedia)

1. **Dhruv Desai.** (2017). *Sajiv Kheti*. On popular webmedia, jaianavil.com. *In* Gujarati (English translation: Organic Farming).
2. Rohit Kumar Jaiswal, Heera Lal, Madane Pratap, Dipak Kumar Banerjee, **Dhruv Desai N.** (2017). Role of Dairying in Doubling Farmer's Income: An Economic Analysis. *Dairy Planner*, 14(10): 16-17.
3. Rohit Kumar Jaiswal, Sheelendra Kumar, Abhishek Kumar, **Dhruv Desai**, vaibhav Purvar, Sandeep Kumar Chaudhary, Heera Lal. (2018). Dairy prasanskaran sayantra prarupikaran ke liye pariyojana prastav. *Dairy Planner*, 15(1): 17. *In* Hindi, (English translation: Key plan to upgradation/modernisation of dairy plan).
4. **Dhruv Desai** and Ketan Patel. (2018). *Vyagyanik dhabe vachhardi/palino uchher kai rite karsho?* On popular webmedia, jaianavil.com. *In* Gujarati, (English translation: Scientific ways to take care of calf/new born animal).
5. **Dhruv Desai**, Ketan Patel and Sonal Chaudhari. (2018). *Pashupalan ne lagta pashupalak dvra varamvar puchhata agatyana savalo*. Gaudarshan Guide. pp. 24-26. *In* Gujarati, (English translation: Important frequently asked questions by farmer related to animal husbandry).
6. Rohit Kumar Jaiswal, Sadhana Ojha, Sirajuddin, **Dhruv Desai**, Babu lal Saini and Madan Pratap. (2018). *Unt ke dudh ka dudh utpadan mein yogdan tatha iske labhkari gun*. On popular webmedia, Krishiseva. *In* Hindi, (English translation: Contribution of camel milk in milk industry and its valuable benefits).
7. **Dhruv Desai**, Sonal Chaudhari, Rohit Kumar Jaiswal, Boopathi P. and Ketan Patel. (2018). Colibacillosis in poultry: A major economic threat for poultry farmers. *Poultry Planner*, 20(10): 18.
8. **Dhruv Desai**, Sonal Chaudhari, Rohit Kumar Jaiswal, Boopathi P. and Ketan Patel. (2018). Antimicrobial Drug Residues in Animal Food Products: Threats and Challenges. *Dairy Planner*, 15(10): 5-6.
9. Ketan Patel, Sonal Chaudhari and **Dhruv Desai.** (2018). Pashu samvardhan ma dhyane leva jevi babato. Gaudarshan Guide. pp. 20- 21. *In* Gujarati, (English translation: Things that are required to be consider in animal conservation).
10. D. R. Patel, Pushpa M Makwana, **D. N. Desai**, D. M. Muglikar and I. H. Kalyani. (2018). Hadakvano Rog: Lakshno ane atkavana upayo. Gaudarshan Guide. pp. 09-

11. In Gujarati, (English translation: Rabies: its symptoms, prevention and control strategies).
11. Sawan D. Rathwa, **Dhruv N. Desai** and Sanjay B. Patel. (2019). Dudhalu pashuoma garma ni tapas karvana upay. Krishijivan. Pp. 25-27. In Gujarati, (English translation: Various methods of detecting heat in dairy animal at field level).
12. **Dhruv Desai** (2019). Management of Avian Urolithiasis (Visceral Gout) in poultry. Poultry World. 14(7): 40-44.

Book chapter:

- 1) **Dhruv Desai**, Irshadullakhan Kalyani, Dharmesh Patel, Pushpa Makwana, Dushyant Muglikar, Jignesh Patel and Jayesh Solanki. (2020). Recent Diagnostic Approaches for Animal Disease Diagnosis. *In Advances in Veterinary Sciences*. Vol. 6. Pp. 1-11.

Presentation:

1. **Dhruv Nitinkumar Desai**. (2013). Hydroponics: an alternative for urban and metro farming. Paper presented during national competition “Spardha’13 on “Eco-Agriculture” organised by Vaikunth Mehta National Institute of Co-operative Management, Pune, 9th -10th March, 2013. (During Under graduation)
2. **Dhruv Desai** and Sandeep Bhatia. (2016). Standardization and growth characteristic of reverse genetic based rgH5N2 clade of 2.2 and 2.3.2.1 virus. Paper presented during International Conference on “Global perspective in Virus Disease Management” organised by Indian Virological Society, held at ICAR-IIHR, Bengaluru, 8th – 10th December, 2016.
3. **D. N. Desai**, I. H. Kalyani, K. K. Sharma, D. R. Patel and Pushpa Rathod. (2017). Microbiome cocktail therapy to managerial control of plant disease: A new approach and application. Poster paper presented during Special Symposium on “Microbial Antagonists and Their Role in Biological Control of Plant Disease” organised by Indian Phytopathological Society, held at Anand Agricultural University, Anand, 5th – 7th October, 2017.
4. **D. N. Desai**, A. D. Patel, I. H. Kalyani, K. K. Sharma and D. R. Patel. (2017). Microbial antagonist and prevention of plant disease through traditional way of indigenous cow dependent farming. *ibid* Sr.No.3.
5. **D. N. Desai**, R. K. Jaiswal, D. B. Bhinsara, R. B. Gondaliya and K. A. Patel. (2017). Clinico-Diagnostic and Therapeutic Aspect of Peste-Des-Petits Ruminants (PPR) in Goat. Poster presented during workshop on “Commercial & backyard goat farming with scientific approach” organised by Amity Institute of Microbial Technology, held at Rajasthan Science Congress, Amity University, Jaipur, Rajasthan, 13th -14th October, 2017.
6. S. S. Ghoke, R. Sood, N. Kumar, A. K. Pateriya, S. Bhatia, A. Mishra, R. Dixit, V.K.Singh, **D. N. Desai**, D. D. Kulkarni, U. Dimri and V. P. Singh. (2018). Evaluation of antiviral activity of *Ocimum sanctum* and *Acacia Arabica* leaves extracts against H9N2 virus using embryonated chicken egg model. Research paper

- presented during 36th Annual Convention & National Symposium on “Animal Health Service Delivery – The Priorities of the Professionals for Enhancing Farmers’ Income” organised by Indian Society for Veterinary Medicine, held at college of veterinary science & animal husbandry, Orissa University of Agriculture and Technology, Bhubneswar, 1st – 3rd February, 2018.
7. Patel, D. R., Makwana, P. M., Kalyani, I. H., Sakhare, P. S., Muglikar, D. M. and **Desai, D. N.** (2018) Seroprevalence of Bovine and Caprine Brucellosis in Navsari District of Southern Gujarat. Presented in International Conference on Rural livelihood improvement by enhancing farmers’ income through sustainable Innovative Agri and allied enterprises (RLISAAe) during 30th Oct.-1st November, 2018
 8. **Desai, D.**, Kalyani, I., Ramani, U., Sharma, K., Patel, D., Makwana, P. and Muglikar, D. (2018). Evaluation of Viral DNA extraction methods for diagnosis of canine parvo virus from faecal sample. Presented in National Symposium on “Newer Concepts and Approaches for Improvement in Animal Health and Production” during 13th 14 December 2018.
 9. **Desai, D. N.**, Kumar, R., Patel, N. M., Kalyani, I. H., Savalia, C. V. and Ramani U. V. (2019). Phylogenic Characterization of Methicillin Resistant Coagulase Positive Staphylococcus aureus (MRSA) isolated from bovine raw milk, dairy food products and handler’s hand research paper presented in National conference (ISBD-2019) on “Enhancing Rural Livelihood through improved buffalo productivity and Health” during 17th 19 January 2019.
 10. Muglikar, D.M., Kalyani, I. H. , **Desai, D. N.** , Patel D. R., Makwana P. M. and Solanki, J. B. (2019). Whole Genome sequence Analysis of *E.Coli* isolated from Chicken. During National Seminar on “Biotechnology Advance for Improving animal Health and Productivity” organized at Navsari Agricultural University, during 5-6 December 2019.
 11. Muglikar, D. M., Kalyani, I. H., **Desai, D. N.**, Patel, J. M., Patel, D. R., Makwana, P. M. and Solanki, J. B. (2019). MALDI-TOF-MS (Matrix Assisted Laser Desorption Ionization Time of Flight Mass Spectrometry) for identification of Avian Pathogenic *Escherichia Coli*. Ibid.Sr.No.7.
 12. Sakhare, P. S., Kalyani, I. H., Vihol, P., Ramani U. V., Sharma, K. K., Solanki, J.B., Patel, D. R., **Desai, D. N.**, Patel, Y., Pandya, S. and Makwana, P. M. (2019). Epidemiological observations on an outbreak of Peste Des Petits Ruminants (PPR) by sandwich ELISA in Goats of South Gujarat. Ibid.Sr.No.7.
 13. Sakhare, P. S., Kalyani, I. H., Vihol, P., Ramani, U. V., Sharma K. K., Solanki, J. B., Patel, D. R., **Desai, D. N.** and Makwana, P. M. (2019). Seroepidemiology of Peste Des Petits Ruminants (PPR) in Sheep and Goats of Southern Districts of Gujarat, India. Ibid.Sr.No.7.
 14. Patel, N. M., Kumar, R., Savalia C. V., **Desai, D. N.**, Kalyani, I. H. and Ramani, U. V. (2019). Statistical Determination of Milk Borne Microorganism Resistance Emergence of Therapeutic Antibiotics Isolated from Bovine Raw Milk. Ibid.Sr.No.7.

15. Patel, N. M., Kumar, R., Savalia C. V., **Desai, D. N.**, Kalyani, I. H. and Ramani, U. V. (2019). Dietary Exposure and Public Health Risk Assessment of Antibiotic Residues in Bovine Raw Milk in South Gujarat, India. Ibid.Sr.No.7.
16. **Desai, D. N.**, Ramani, U. V., Kalyani, I. H., Makwana, P. M. and Patel, D. R. (2019). Identification of Potential Antigens for Vaccine Design against *Brucella abortus* by using an immuno-informatics Approach. Ibid.Sr.No.7.

Gene Bank Submission:

Sequences of	Sr. No.	NCBI Acc. No.
Canine parvo virus, VP2 gene	1)	MH899908
	2)	MH899909
	3)	MH899910
	4)	MH899911
	5)	MH899912
	6)	MH899913
	7)	MH899914
	8)	MH899915
	9)	MH899916
	10)	MH899917
Newcastle disease virus, F gene	11)	MK213736
	12)	MK213737
	13)	MK213738
	14)	MK213739
	15)	MK213740
Peste-des-petits ruminants virus, N gene	16)	MK213753
	17)	MK213754
	18)	MK213755
	19)	MK213756
	20)	MK213757
Peste-des-petits ruminants virus, F gene	21)	MK213758
	22)	MK213759
	23)	MK213760
	24)	MK213761
	25)	MK213762
<i>Corynebacterium pseudotuberculosis</i> , PLD gene	26)	MK291418
	27)	MK291419
	28)	MK291420
	29)	MK291421
	30)	MK291422
<i>Staph. aureus</i> , 16 S rRNA	31)	MN396185

	32)	MN396186
	33)	MN396187
	34)	MN396188

Training

1. Training Programme on “Use of Bioinformatics Tools in Animal Science Research: Basics and Fundamentals” from 18-20 February 2016 organised at Bioinformatics Centre, DBT, Ministry of Science & Technology, GOI, Indian Veterinary Research Institute (IVRI), Izatnagar, Bareilly, U.P.
2. Training Programme on “Data Analysis Using SAS, MATLAB and SPSS” from 05-09 February 2018 organised by the College of Agricultural Information Technology, Anand Agricultural University, Anand, Gujarat.
3. Training on Laboratory animal handling and managemental care organised by TANUVAS, Chennai.
4. Participated in “Influenza sentinel surveillance training” organised by World Health Organization (WHO) on April 3, 2018.

Fellow of Society

1. Fellow of Academy of Science and Animal Welfare (FASc & AW) (In recognition of selflessly serving by treatment and care to stray animals as a voluntarily free service towards social work).

Additional Responsibilities

Reviewer and editorial board member for more than 6 journals and reviewed more than 20 articles so far.

Award/Medal

1. **Awarded Navsari agricultural University Merit Scholarship Award/Medal** during B.V.Sc & AH (2010-2015), College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari, Gujarat.
2. **Awarded Dr. R. P. S. Ahlawat Best Internee Cash Prize Award** for outstanding performance during the internship programme of B.V.Sc & A.H (2010-2015 batch) at undergraduate level, College of Veterinary Science and Animal Husbandry, Navsari Agricultural University, Navsari, Gujarat.

3. **Vice Chancellor's Gold medal award** for highest OGPA and overall best performance in extracurricular activities for the degree of B.V.Sc & A.H.
4. **Awarded ICAR-IVRI fellowship** during M.V.Sc programme in Veterinary Immunology at IVRI, Izatnagar, Bareilly, U.P., India.
5. **Awarded Navsari agricultural University Doctoral fellowship** during Ph.D. for having best overall academic performance.
6. **Best Paper Presentation Award (Second Prize)** during 36th Annual Convention & National Symposium on "Animal Health Service Delivery – The Priorities of the Professionals for Enhancing Farmers' Income" organised by Indian Society for Veterinary Medicine, held at college of veterinary science & animal husbandry, Orissa University of Agriculture and Technology, Bhubaneswar, 1st – 3rd February, 2018.
7. **Best Poster Paper presentation Award (First Prize)** during National Symposium on "Newer Concepts and Approaches for Improvement in Animal Health and production" during 13-14 December, 2018 at RAJUVAS, Bikaner.
8. **Best Oral Paper presentation Award (First Prize)** during National conference on "Enhancing Rural Livelihood through improved buffalo productivity and health" organized at Navsari Agricultural University" during 17th – 19th January, 2019.
9. **Best Oral Paper presentation Award (First Prize)** during National Seminar on "Biotechnology Advance for Improving animal Health and Productivity organized at Navsari Agricultural University, during 5-6 December, 2019.

Techniques Known:

1. Conditional Reprogramming of Cells (CRC)
2. Flow cytometry
3. Mammalian cell culture (handling, conducting experiment)
4. Virus isolation technique through Embryonated Chicken Egg (ECE) including Egg inoculation, monitoring, harvesting and testing.
5. Virus Propagation in mammalian cells
6. Virus titre quantification by plaque assay, TCID₅₀, EID₅₀
7. PCR, qPCR, different variants of PCR
8. Primer designing
9. Polymerase Spiral Reaction (PSR, isothermal amplification)
10. Loop mediated isothermal amplification (LAMP)
11. Electrophoresis
12. Protein expression, purification (By Ni-NTA agarose column), quantification
13. SDS-PAGE, RNA-PAGE, Western blotting
14. Immunochromatography
15. Lymphocyte proliferation assay
16. Virus inactivation
17. Cytokine (mRNA based, ELISPOT based) Expression study
18. ELISA (and its variant), HA, HI, AGID
19. Development of ELISA

20. Intradermal Testing (TB and JD testing)
21. MALDI-TOF
22. Histopathology protocol
23. Immunohistochemistry
24. Sequencing and analysis
25. Immunoinformatics
26. Animal experiment conduction (Immunization and challenge study)
27. Cloning and recombinant technology
28. Routine bacteriological processing (Isolation, Identification, Primary and secondary test)
29. Antimicrobial susceptibility test (following CLSI guidelines by disc diffusion method)
30. MIC based and Gene based detection of antimicrobial resistance
31. ***All Veterinary diagnostic activity including bacteriology, virology, mycology, histopathology and molecular and serological test (efficient to develop new ELISA and new generation assay)***
32. Genomic analysis based on virulence gene, resistant gene and phylogenetic analysis
33. Bioinformatics analysis as per the objective of study

List of Pathogens until now studied/handled/assist on work:

1. *Avian Influenza* (H5N1 (clade of 2.2, 2.3.2.1), H5N8, H9N2, rgH5N2)
2. *Bovine Viral Diarrhoea* (assist)
3. *Rotavirus A*
4. *Bovine herpes virus-1* (assist)
5. *PPR virus* (assist)
6. *Canine Distemper virus*
7. *Canine Parvovirus*
8. *Canine Coronavirus* (assist)
9. *Brucella* spp. (assist)
10. *Leptospira* spp.
11. *E.coli*
12. Different routine bacterial etiological agents of veterinary importance like, *Salmonella* spp., *Staphylococcus* spp., *Streptococcus* spp., *Pseudomonas* spp. etc.
13. *Babesia* spp. and *Anaplasma* spp.

Bioinformatics Software literacy

1. Online database like NCBI, BLAST, UniProt, DDBJ, CARD (formerly ARDB).
2. Clustal W
3. MEGA 7/X
4. Sequin
5. DNA Star
6. PrimerSuite
7. Primer3

8. Oligo Analyzer etc.

9. MAFFT

Different Online database server as per the analysis (intermediate level) and well adaptive with different software tools and fast learner

Seminar/Symposium/Workshop/Conference/Congress/Convention/Interface Meet

Seminar				
Sr. No.	Title	Organized By	Place	Date
1.	Regional Seminar on Role of Physiologist in Veterinary Profession	Nagpur Veterinary College, Nagpur, Maharashtra	Nagpur	06 th October, 2012
2.	Technical Seminar on Advances in Animal Disease Diagnosis and Health Management	Department of Animal husbandry, Gandhinagar, Gujarat	Vanbandhu College of Veterinary Science and A.H., Navsari	05 th January, 2014
3.	Technical Seminar on Strategies, Approach and Preparedness of Veterinarians in Control of Emerging and Re-emerging Zoonosis	Animal Husbandry Department, Gandhinagar, Gujarat	Vanbandhu College of Veterinary Science and A.H., Navsari	04 th January, 2015
4.	Seminar on Control strategies for emerging and re-emerging disease of livestock and birds	Department of Animal husbandry, Gandhinagar, Gujarat	Veterinary College, SDAU, Sardarkrushinagar, Gujarat	28 th January, 2017
5.	Technical seminar on bovine infertility	AAU, Anand	Veterinary College, AAU, Anand, Gujarat	21 st September, 2018
6.	Continuing Veterinary education on prevention and control of rabies	APCRI and AAU, Anand	Veterinary College, AAU, Anand, Gujarat	6 th October, 2018
7.	Technical Seminar on “One Health”	College of Veterinary Science and A.H., Udgir, Latur	Veterinary College, Udgir, Latur	3 rd November, 2018
8.	Technical Seminar on “Agrivision”	Navsari Agricultural University, Navsari	Navsari Agricultural University, Navsari	18 th November, 2018

Symposium				
1.	Global Symposium on Animal Health: Newer Technologies and Their Application	College of Veterinary Science, Khanapara and ICAR-NRC on Pig, Rani, Kamrup.	ICAR-NRCP, Rani, Kamrup	12 th -14 th February, 2016
2.	National Symposium on Newer Concepts and Approaches for Improvement in Animal Health and production	College of Veterinary Science, Navania.	RAJUVAS, Bikaner, Rajasthan	13 th -14 th December, 2018
Workshop				
1.	National workshop on Influenza: Risk Factors, Massive Impact and Uncertain Future	ICAR-Indian Veterinary Research Institute	IVRI, Izatnagar, Bareilly, U.P.	19 th October, 2015
2.	National workshop on Current Trend and Future Research Challenges in Vaccines and Adjuvants	ICAR-Indian Veterinary Research Institute	IVRI, Izatnagar, Bareilly, U.P.	19 th -20 th November, 2015
3	Hands on Workshop for Laboratory Animal Science and Management	Tamil nadu Veterinary and Animal Sciences University, Chennai.	Madhavaram Milk Colony Campus, Chennai	29 th -31 st October, 2018
Conference				
1.	International Conference on Challenges and Opportunities in Animal Health at the Face of Globalization and Climate Change	DUVASU, Mathura	Mathura, U.P.	30 th October-1 st November, 2014
2.	International Conference on Food, Water, Energy Nexus in Arena of Climate change	Anand Agricultural University, Anand	Anand, Gujarat	14 th – 16 th October, 2016
3.	National conference on Enhancing Rural Livelihood through improved buffalo productivity and health	College of Veterinary Science and A.H., Navsari	Navsari Agricultural University, Navsari, Gujarat	17 th – 19 th January, 2019
Congress/Convention				
1.	Rajasthan Science Congress on Science & Technology for	Amity University, Rajasthan	Jaipur, Rajasthan	13 th -15 th October, 2017

	Sustainable Development of State of Rajasthan			
2.	West Zone Student Research Convention	Ganpat University, Mehsana, Gujarat	Mehsana, Gujarat	14 th -15 th February, 2018
Interface Meet				
1.	Interface meet between Scientist and Veterinarian of Gujarat	Training and Education Centre, ICAR-IVRI, Pune	College of Veterinary Science and A.H., Navsari	19 th September, 2017

Membership

Sr.No.	Name	Sr.No.	Name
1	Poultry Science Association (PSA)	1	Indian Immunology Society (IIS)
2	World Society for Virology (WSV)	2	Association for Prevention and Control of Rabies in India (APCRI)
3	International Association of Engineers (IAENG)	3	Society for Biosafety (SBS)
4	IAENG Society of HIV/AIDS	4	Associate member of Academy of Science and Animal Welfare (AScAW)
5	IAENG Society of Computer Science	5	Society for Veterinary Sciences & Biotechnology (SVSBT)
6	IAENG Society of Bioinformatics	6	Veterinary Council of India (VCI)
7	Scientific and Technical Committee & Editorial Review Board on Animal and Veterinary Sciences, World Academy of Science, Engineering and Technology (WASET)	7	Gujarat Veterinary Council (GVC)
8	American Association of Veterinary Laboratory Diagnosticians	8	Indian Association of Veterinary Microbiologists, Immunologists and Specialists in Infectious Diseases (IAVMI).
9	United States Animal Health Association	9	Indian Society for Veterinary Immunology and Biotechnology (ISVIB).

		10	Indian Association for the Advancement of Veterinary Research (IAAVR).
		11	Laboratory animal scientist's Association (LASA)

Computer literacy

1. Successfully passed DOEACC CCC Examination with 'B' Grade (Computer exam).
2. Software Packages: MS Office Suite (Word, Excel, PowerPoint), Adobe Photoshop, Inkscape (graphical illustration) GraphPad, SPSS, and various research oriented software (well adaptive and fast learner)
3. Operating Systems: Windows XP/Vista/7/10, Android.

Extra-Curricular activities

1. **First Prize** secured in Zydus AH 7th national level All India Drawing & Painting Competition-2014 at College level. (State level)
2. **Second Prize** secured in Essay competition organised by ICAR-NIHSAD on "Krishi Education Day" held on 3rd December 2016 at National Level.
3. **Satisfactorily** completed a period of two year as NSS (National Service Scheme) volunteer from 2011 to 2013, Vanbandhu College of Veterinary Science & A.H., NAU, Navsari.
4. **Awarded Certificate of Appreciation** for valuable service with close association with Forest department in rescue the birds that got injured during kite flying festival in Navsari district by Deputy conservator of Forest, Social Forestry Division, Navsari.
5. **Delivering Speech award** in "The Talk on Book of my Choice" a state level programme conducted on every 1st Saturday of the month throughout the year 2017-18 at Shree Sayaji Vaibhaiv Public Library and Shree Narendra Hiralal Parekh Gyandham.
6. **Certificate of Honour** for active participation in "Pakshi Bachavo Abhiyan (Save Birds)"-2018 with collaboration of "Bhagvan Mahavir Karuna Mandal", Navsari.
7. **Awarded different merit award** for securing highest merit during UG and PG by various Social trust and NGO.
8. Participated in young natural wings national level Essay competition on topic "Recent advancements in medical field adoptable/adapted in veterinary practice" organised by Natural Remedies, 2017-18
9. Participated in Venky's All India Veterinary Colleges Professional Quiz Competition organised by Veterinary Society at G. B. Pant University of Agriculture & Technology, Pantnagar-263145, U.S. Nagar, U.K. for **3 time** during 2012, 2013, 2014 and represented the University at National Level.

10. Participated in Western Zone, National level Veterinary Physiology Quiz competition organised by Society of Animal Physiologist of India (SAPI) for **2 time** during 2012-13 and 2014-15 academic year in B.V.Sc & A.H and represented the University at National Level.
11. Participated in National Level Youth Competition “SPARDHA’ 2014” Organised by Vaikunth Mehta National Institute of Co-operative Management, Pune, Ministry of Agriculture, Govt. of India and represented the University at National Level.
12. Participated in Kamdhenu University **Logo competition** held during 2014-15 at State level.
13. Actively participated in state level in “Yuva kayakalp Shibir” organised by Navsari Agricultural University, Navsari.
14. Participated in webinar and online quiz.

Interest of Research topic

1. Basic and cellular Immunology
2. Advanced Immunodiagnostics
3. Molecular Immunology, Molecular Virology and Molecular Biology
4. Oncogenesis
5. Applied Bioinformatics and Evolution
6. Basic and Applied Virology
7. Diagnostic tool development
8. Vaccine development and Innovation
9. Adjuvant and Vaccinology
10. Antimicrobial resistance surveillance and database development
11. Monitoring, surveillance and epidemiological investigation programme
12. Biotechnological innovation
13. Poultry Pathology
14. Oncolytic Virotherapy
15. Animal oncology

Career Goals

I look myself to be a one health scientist and professor in future career endeavour and honestly working towards achieving it. I would like to teach and research at an institute with advanced facilities to better explore the science related to diseases in various animals as well as in humans, which leads to generation of diagnostic, vaccine development, antimicrobial therapeutics, oncology, basic and applied research and preparedness for pandemic. I desire an opportunity to work in a dynamic environment where my skills and intelligence can be showcased as well as utilized which make impactful output for animal and human.

Attitude and Personal competencies

- Skilled at learning new concepts quickly, working well under pressure and communicating ideas clearly.

- Strong leadership and interpersonal skills and belief in teamwork and mutual learning.
- Easily adaptable to multicultural work environment, program and systems.
- Committed, faster learner and target oriented.

Personal information

Work Address: Ryan Veterinary Hospital, PennVet, UPenn, Philadelphia, United States

Hobbies: Essay writing, Table Tennis, Cricket, Mouthorgan Player, Reading books & scientific magazines, Drawing and Cooking.

Highlighting activity: Table Tennis and Mouthorgan Player

Communication skills: Good communication skill and I can work in multicultural and multinational environment. I can accept the professional challenge and work on them. No criminal background.

Languages:

English - Professional proficiency

Hindi - Bilingual proficiency

Gujarati - Mother tongue

References

On Request

Date: 09-26-2022

Place: Philadelphia

Dhruv Desai