

## CURRICULUM VITAE

**CHAITANYA H. PAWSHE**

*MVSc., PhD, PDF (USA),  
FISSAR, BOYSCAST Fellow*

**Professor & Head**

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### ❖ Appointments

- 2019 to till date** **Professor**, Department of Animal Reproduction, Gynaecology & Obstetrics, Post Graduate Institute of Veterinary & Animal Sciences, Akola.
- 2013 to 2019** **Associate Professor (ARGO) & In Charge**, Stem Cell Laboratory, Bombay Veterinary College, Parel, Mumbai-12
- 2005 to 2013** **Associate Professor & I/c Head**, Department of Animal Reproduction, Gynaecology & Obstetrics, Post Graduate Institute of Veterinary & Animal Sciences, Akola.
- 1996 to 2006** **Assistant Professor**, Department of Animal Reproduction, Gynaecology & Obstetrics, Post Graduate Institute of Veterinary & Animal Sciences, Akola.
- 1990 to 1996** **Sr. Scientist**, Embryo Biotechnology Laboratory, National Institute of Immunology, New Delhi. India.

### ❖ Research Experience

- Stem cell research
- Embryo transfer in cattle and buffaloes.

- *In vitro* maturation, fertilization and embryo development in buffalo and goat.
- Cryopreservation of gametes
- Surgical Embryo transfer in goat and rabbit
- Detection of early pregnancy in Cattle and Buffalo by Ultrasonography.
- In-situ hybridization.
- Immunohistochemistry.
- Embryo sexing using Polymerase chain reaction (PCR).

❖ **Awards:**

- 2019** Recipient of **Krushji Gauraw Puraskar**, awarded by Bhausaheb Mane Krushi Pratisthan, Krushi Vigyan Manch, Dr PDKV, Akola
- 2015** Recipient of **Nakul Award** (is given in the memory of epic hero Nakula; one of the Pandwas, for his contribution in the Veterinary Science) awarded by Red Swastik Society, Mumbai (The award carries cash award of Rs 10,000/- with memento & certificate of achievement)
- 2014** Recipient of **Best Paper Presentation Award** awarded by the Indian Society for Study of Animal Reproduction at Nagpur
- 2011** Recipient of **Best Academician/ Research Award** awarded by Senior Veterinary Foundation, Maharashtra (Pune) for valuable contribution in the field of education and research.
- 2010** Recipient of **Fellow Award (FISSAR)** from Indian Society for Study of Animal Reproduction.
- 2010** Received **First prize for National Essay Competition** organized by Vetcare India
- 2009** Recipient of **Best Research Scholar Award** awarded by Maharashtra Animal and Fishery Sciences University, Nagpur for scientific contribution in the area of Assisted Reproductive Technology
- 2005** Recipient of **BOYSCAST Fellowship Award**, awarded by *Department of Science and Technology, Ministry of Science and Technology, Govt. of India*, for doing research in advance technology at abroad for one year duration. Under this fellowship award I had worked at University of Wisconsin- Madison, USA

- 2002** Recipient of **Best Research Worker Award** for invaluable research in the field of Veterinary Science, Awarded by Veterinary Association of Bombay Veterinary College, Bombay.
- 1998** Recipient of “**Vasantrao Naik Memorial Gold medal Award**” (10 gm Gold Medal) awarded by by **Vasantrao Naik Smruti Pratisthan**, and **Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola** for **Presenting excellent Scientific paper.**
- 1997** Recipient of **Young Scientist Award** awarded by the Indian Society for Study of Animal Reproduction at Bidar (Karnataka).
- 1995** Recipient of **Young Scientist Award** awarded by the Indian Society for Study of Animal Reproduction at Akola.
- 1993** Recipient of **Young Scientist Award** awarded by the Indian Society for Study of Animal Reproduction at Calcutta.
- 1992** Recipient of **Young Scientist Award** awarded by the Indian Society for Study of Animal Reproduction at Madras.

**1987-89: Panjabrao Deshmukh Krishi Vidhyapeeth Merit Scholarship**

❖ **Scientific Recognition**

❖ **Research Project Implemented:**

| Sr. No. | Name of the research project   | Total Outlay      | Funding Agency                                   | Period                 |
|---------|--|-------------------|--|------------------------|
| 1       | ICAR-AICRP Network programme on Embryo Transfer Technology in Animal Production  | Rs 90.66/- lakhs. | ICAR, New Delhi                                  | 1996 to 2002           |
| 2       | Establishment of ultrasound guided transvaginal oocyte retrieval (TVOR) from cows and buffaloes for in vitro embryo production | Rs 49.25/- lakhs. | Department of Science and Technology, New Delhi, | 2000 to 2004           |
| 3       | Oestrus Synchronization in Cattle  | Rs. 58.85 lakhs   | MLDB   | March 2008- July 2009  |
| 4       | Sustainable rural livelihood security (SRLS) through integrated approach in Hingoli and Nanded districts of Maharashtra        | Rs. 130.625 lakhs | NAIP-ICAR  | Dec. 2008 to July 2013 |

|   |  |                  |   |           |
|---|--|------------------|---|-----------|
| 5 | Fourier Harmonic Analysis (FHA) for sperm nuclear shape analysis and its relation to sperm nuclear DNA changes<br>(Collaborative Research project between Maharashtra Animal & Fishery Sciences University, Nagpur and University of Wisconsin-Madison, USA) | US \$<br>19000/- | Babcock<br>Research<br>Foundation,<br>Wisconsin,<br>USA | 2006-2007 |
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## ❖ RESEARCH PUBLICATIONS

1. **Pawshe C H** ( 2018) Stem cell: An regenerative medicine (2018) paper publish in DBT National training compendium, “Spermatogonial stem cell biology: Culture and characterization” Central Institute of Research in Goats, Mathura October. 2018.
2. **Pawshe C. H.**, S. A. Ingle, V.S. Dhaygude and R. R. Shelar (2017) Stem Cells : As Regenerative Medicine, (Lead paper publish in compendium National conference on “ Recent trend in veterinary immunology and biotechnology for doubling farmers income through livestock health and production” ( 5<sup>th</sup> to 7<sup>th</sup>,December, 2017) , Parbhani, 61-66
3. **Pawshe C. H.**, S. A. Ingle and R. R. Shelar (2017) Biotechnological Interventions for Enhancing Animal Productivity through Reproduction, (Lead paper publish in compendium of National conference “Challenges in livestock and poultry production- Solution with biotechnology” (17-19<sup>th</sup> April 2017) Shirwal
4. **Pawshe C. H.** (2016) Augmenting bovine reproduction through assisted reproductive technology in India. (Lead paper publish in compendium of National Seminar on Biotechnological Approaches in Management of Health and Reproductive Disorders in Livestock for Sustainable Production organized by College of Veterinary & Animal Husbandry, Anand Agriculture University, Gujarat ), 16-17<sup>th</sup> 2016, 1-8
5. **Pawshe C. H.** (2016) Reproductive Biotechnology for Improving Livestock Production in India. (Lead paper publish in compendium of State Level Workshop on “Advances in Reproductive Technology for Enhancement of fertility in dairy and companion animals” organized by Department of ARG, College of Veterinary & Animal Husbandry, OUAT, Bhubaneswar)
6. **Pawshe C.H.** and **Purohit G. N.** (2013) Approaches for Diagnosis of Pregnancy in Female Buffaloes , chapter publish in book (*English language* ) **Bubaline**

- Theriogenology**, International Veterinary, Information Service, Ithaca NY (www.ivis.org), Last updated: 26-Jun-2013; A5708.0613.ES
7. **Pawshe C.H.** and **Purohit G. N.** (2013) Aproximación al diagnóstico de preñez en bufalas, chapter publish in book (*Spanish language* ) **Bubaline Theriogenology**, International Veterinary, Information Service, Ithaca NY (www.ivis.org), Last updated: 09-Sept-2013
  8. **Pawshe C. H.**, S. R. Patil and M. V. Ingawale (2012) Ultrasonography: A diagnostic tool for detection of early pregnancy and study of embryonic development in buffalo and cattle. **Intas Polivet**. Vol.12 (1):1-4.
  9. **Pawshe C.H.**, S.R. Kale, M.V. Ingawale and S.G. Deshmukh (2010) In vitro maturation and fertilization of denuded buffalo oocytes with cumulus cell monolayer, **Buffalo Bulletin**, Vol.29 No.4,256-261.
  10. **Pawshe C H** (2010) In vitro maturation, fertilization and embryonic development of morphologically classified goat oocytes, **Indian Journal of Animal Sciences**, 80 (11): 1080–83.
  11. **Pawshe C. H.**, M. V. Ingawale , S. G. Deshmukh and J. Kurundwade (2010) Non infectious infertility in bovines. **Vets India**. I (I) 14-16.
  12. **C. H. Pawshe**, M. V. Ingawale and S. G. Deshmukh (2010) Oestrus synchronization of cows under field condition. **Compendium of ISSAR Symposium** Non. 2010, 123-127
  13. **Pawshe C.H.**, M.V. Ingawale and S.G. Deshmukh. (2009) Reproductive management through estrus synchronization in dairy cows, Proceeding of Seminar on Reproductive Disorder Management and Artificial Insemination in Domestic Animals. 24<sup>th</sup> Sept. 2009, P. No- 29-34.
  14. **Pawshe C.H.**, M.V. Ingawale and S.G. Deshmukh. (2008) Biotechnology in Animal Reproduction: *Research for Tomorrow Seminar on Assisted Reproductive Technologies for Livestock Improvement*. Proceeding of National seminar on Animal Reproduction 18<sup>th</sup> Oct. 2008, P. No.- 24-25.
  15. **Pawshe, C. H.** , S. K. Sahatpure, M. S. Patil and R. K. Patil (2004).Ovarian response and embryo production in Nagpuri (Berari) buffaloes superovulated with different doses of follitropin V. **Indian Journal of Animal Science** **74** (10) 1018- 1020
  16. **Pawshe C. H.** and S. M. Totey (2004). Effect of different capacitating agents on in vitro fertilization of goat follicular oocytes. **Journal of Animal Reproduction** **25** (2) (2004)79-82.

17. **Pawshe C. H.** and S. M. Totey (2003). In vitro maturation and embryo development of goat oocytes. *Indian journal of Animal Science* **73** (6) : 77-81
18. **Pawshe, C. H.** Appa Rao K.B.C. and Totey, S.M. (1998).Effect of insulin like growth factor – I and its interaction with gonadotropins on *in vitro* maturation and embryonic development, cell proliferation and biosynthetic activity of cumulus oocyte complexes and granulosa cells in buffalo. *Molecular Reproduction and Development*, **49** : 277-285.
19. **Pawshe, C. H.**, Appa Rao, K.B.C., Jain, S.K. and Totey S.M (1994). Biochemical studies on goat oocytes: Timing of nuclear progression, effect of protein inhibitor and pattern of polypeptide synthesis during *in vitro* maturation. *Theriogenology*, **42**: 307-320.
20. **Pawshe, C.H.**, Jain, S.K. and Totey, S.M. (1994). A comparison of three methods of recovery of goat oocytes for in vitro maturation and fertilization. *Theriogenology*, **42** : 117-125.
21. **Pawshe,C.H.**, Rao, K.B.C. and Totey,S.M. (1994).Ultrasonographic imaging to monitor early pregnancy and embryonic development in the buffalo (*Bubalus bubalis*). *Theriogenology*, **41** : 697-709.
22. **Pawshe, C. H.** and Totey, S.M. (1993 ). Effect of cumulus cell monolayer on in vitro maturation of denuded oocytes of buffalo. *Theriogenology*, **39** : 281.
23. **Pawshe, C.H.**, Palanisamy, A,Taneja, M. Jain, S.K. and Totey, S.M. (1996). Comparative analysis of various maturation treatments on in vitro maturation of goat oocytes and their early embryonic development and cell number. *Theriogenology*. **46** : 971-982.
24. **Pawshe, C. H**, Jain,S.K. and Totey,S.M. (1993). Effect of commercially available follicle stimulating hormone on in vitro maturation of goat oocytes. *Indian J. of Anim. Reprod.*,**34**: 69-71.
25. **Pawshe, C.H.**, Kadu, M.S. and Fasihuddin, M., Totey, S.M. (1992). Superovulation with follicle stimulating hormone and pregnant mare serum gonadotrophin in crossbeed cows. *Indian J. of Anim. Reprod.*, **13**: 18-20.
26. **Pawshe, C.H.**, Kadu, M.S. and Fasihuddin, M. (1991). Efficacy of PGF2 alpha Dinofertin (Dinoprost) using two routes of administration on estrus synchronization in crossbred cows. *Indian J. of Anim. Reprod.*,**12**:2: 172 - 174.
27. **Pawshe, C. H.**, S. R. Patil and S. K. Sahatpure. (2003). The expoding role of ultrasonography in buffalo reproduction. *Intas Polyvet*. **4** (II) 322-327

28. **Pawshe, C. H.** S. K. Sahatpure, S. G. Deshmukh, M. S. Patil, A. P. Gawande, Waquar Ahmed and M. Fasihuddin (2004). Effect of crestar ear implant for synchronization of estrous in Nagpuri (Berari) buffaloes in three different seasons. *Indian Journal of Animal Science* **74** (10) (2004) 1047-1048
29. Parrish J., Kaya A., **Pawshe C.H.**, Siddiqui M. and Shamsuddin M. (2006) Sperm shape research: An update. Proceeding of the 21<sup>st</sup> Technical Conference on Artificial Insemination and Reproduction, pp 19-26.
30. Totey S.M., **Pawshe C.H.** and Appa Rao (1996). In vitro maturation of buffalo oocytes: Role of insulin and its interaction with gonadotropins *J. Reprod Fertil.* **50** : 113-119
31. Appa Rao, K.B.C. **Pawshe, C.H.** and Totey, S.M. (1993). Sex determination of in vitro developed buffalo ( *Bubalus bubalis*) embryos by DNA amplification. *Molecular Reproduction and Development*, **36**: 291-296.
32. Totey, S.M., **Pawshe, C.H.**, Singh, G.P. (1993). Effect of bull and heparin and sperm concentration on fertilization of buffalo oocytes matured in vitro. *Theriogenology* **39** 887-898.
33. Totey, S.M., **Pawshe, C.H.**, Singh, G.P. (1993). In-vitro maturation and fertilization of buffalo oocytes: Effect of media, hormone and sera. *Theriogenology*, **39**: 1153-1171.
34. Taneja, M., **Pawshe, C.H.**, Guron, C.S., Totey, S.M. and Talwar, G.P. (1991). Superovulation of Barbari Goats with Folltropin: The effect of dose. *Theriogenology*, **35**: 280.
35. Taneja, M., **Pawshe, C.H.**, Totey, S.M., Guron, C.S. and Singh, G. (1991). The use of chronogest implant and folltropin for estrus synchronization and superovulation in goat. *Indian J. Exp. Biol.*, **29**: 1079-1080.
36. Totey S.M., **Pawshe C.H.** and Appa Rao (1996). In vitro maturation of buffalo oocytes: Role of insulin and its interaction with gonadotropins *J. Reprod Fertil.* **50** : 113-119.
37. Appa Rao, K.B.C. Totey S.M. and **Pawshe C.H.** (1994). Biopsy of Indian zebu and crossbred cattle preimplantation embryos and sexing by polymerase chain reaction. *Animal Reproduction Science*, **34** 209-216.
38. Totey, S.M., Singh, G., Taneja, M., **Pawshe, C.H.** and Talwar, G.P. (1991). In-vitro maturation, fertilization and development of follicular oocytes from buffalo (*Bubalus bubalis*). *J. of Reproduction and Fertility*, **95**: 597-607.

39. Totey, S.M., Singh, G., Taneja, M., **Pawshe, C.H.**, Singh, G and Chiller, R.S. (1991). Non Surgical Embryo Transfer in crossbred and non discript cows. *Indian J. of Anim. Reprod.* **12**:1: 42-46.
40. Totey, S.M., Singh, G., Taneja, M., **Pawshe, C.H.** Singh, G. and Chiller R.S. (1991). Effect of season on superovulation and embryo recovery in Sahiwal and crosses of Holstein x Sahiwal donors cows. *Indian J. of Anim. Reprod.*, **12** : 179-182.
41. Taneja, M., Totey, S.M., G Singh, G., **Pawshe, C.H.** and Talwar, G.P. (1992). Effect of addition and removal rates of cryoprotectant on the survivability of frozen bovine embryos. *Theriogenology*, **37**: 308.
42. Appa Rao, K.B.C., Verma, Sulekha., Totey, S.M., Verma, Renu., Taneja, M., **Pawshe, C.H.**, Singh, G. and Talwar, G.P. (1991). Bos Taurus Y – specific primers can distinguish sex in buffalo and zebu cattle viz polymerase chain reaction : potential for embryo sexing. *Theriogenology*, **31** (1): 281.
43. Gopalkrishnan, B. Arvinda, S. **Pawshe, C.H.**, Totey, S.M. and Chandrima Shaha (1998). Studies on glutathione S- Transferases important for sperm function : evidence of catalytic activity independent function. *Biochem Journal*, **328** : 462 – 472.
44. Appa Rao, K.B.C., Totey, S.M., **Pawshe, C.H.** and Sing, G.P (1993). Sex determination by DNA amplification of buffalo (*Bubalus bubalis*) embryos produced in vitro. *Theriogenology*, **39** 179.
45. Totey, S.M., Appo Rao K.B.C., **Pawshe, C.H.** and Khare Narmada (1993). Nuclear progression and changes in protein synthesis during in vitro maturation of buffalo oocytes. *Buffalo Journal*, **3** : 237-245.
46. S. Aravinda, B. Gopalakrishnan, Chinmoy. S. Dey, Satish M. Totey, **Chaitanya, H. Pawshe**, Dinkar Salunke, Kanwaljit Kaur and Chandrima Shaha (1995). A testicular protein important for fertility has glutathione S-transferase activity and is localized extracellularly in the seminiferous tubules. *Journal of Biological Chemistry* **26** : 15675-15685
47. Totey, S. M., Daliri, M., Appa Rao, K. B. C., **Pawshe, C. H.**, Taneja, M., Chillar, R. S. (1996). Differential cleavage and developmental rates and their correlation with cell numbers and sex ratios in buffalo embryos generated in vitro. *Theriogenology* **45** 521-533.

❖ **Books published:**

1. **Pawshe, C. H.** and Ingawale, M.V. (2009) **Practical Approach to Artificial Insemination**, ISBN: 978-909764-0-4, **This is e-book having animations**,



*videos, audiovisual effect present in soft copy form on CD and hard copy.*

2. **Pawshe, C. H.**, Waghmare S.P., Ingawale M.V., Deshmukh S.G. and Munde V.K. **Dudhalo janavarnche sangopan v ajar** (*Managment and diseases of milking animals*) (published on 17Oct.2010)
3. **Pawshe, C.H.**, V.K. Munde, G.P.Dhage, M.V.Ingawale and S.G. Deshmukh: Emu palan (*Emu: Production and Managment* ) .(published on 17Oct.2010)

❖ **Chapter Books :**

***In English Language***

1. **C.H. Pawshe** and **G. N. Purohit (2013)** Approaches for Diagnosis of Pregnancy in Female Buffaloes , chapter publish in book (*English language* ) **Bubaline Theriogenology**, Purohit G.N. and Borghese A. (Eds.). International Veterinary, Information Service, Ithaca NY ([www.ivis.org](http://www.ivis.org)), Last updated: 26-Jun-2013; A5708.0613.ES

***In Spanish Language***

2. **C.H. Pawshe** and **G. N. Purohit (2013)** Aproximación al diagnóstico de preñez en bufalas, chapter publish in book (*Spanish language* ) **Bubaline Theriogenology**, Purohit G.N. and Borghese A. (Eds.). International Veterinary, Information Service, Ithaca NY ([www.ivis.org](http://www.ivis.org)), Last updated: 09-Sept-2013