BIO-DATA

Name	:	**Dr. S. P. Singh**
Designation	:	Principal Scientist
Department	:	Animal Physiology and Reproduction
Institute	:	ICAR- Central Institute for Research on Goats Makhdoom, Farah, Mathura (U.P.)
Date of Birth	:	06.10.1980
Sex	:	Male
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Academic qualification (Post-graduation onwards)

Sr. No.	Institution / Place	Degree Awarded	Year
1.	Rheinische Friedrich-Wilhelms University of Bonn, Bonn, Germany	Ph.D.	2014
2.	Indian Veterinary Research Institute, Izatnagar, Uttar Pradesh, India	Master of Veterinary Science (M.V.Sc.)	2006

Position and Employment

Sr. No.	Institution / Place	Position	From (Date)	To (Date)
1.	ICAR-Central Institute for Research on Goats, Makhdoom, Farah, Mathura (U.P.)	Principal Scientist (Animal Physiology)	07.01.2014	Till Date

2.	ICAR-Central Institute for Research on Goats, Makhdoom, Farah, Mathura (U.P.)	Senior Scientist (Animal Physiology)	07.01.2018	06.01.2014
3.	ICAR-Central Institute for Research on Goats, Makhdoom, Farah, Mathura (U.P.)	Scientist (Animal Physiology)	19.01.2009	06.01.2018
4.	ICAR-Central Institute for Fisheries Education, Mumbai, Maharashtra	Scientist (Animal Physiology)	08.05.2008	18.01.2009

Honors/Awards

1) Associateship of the National Academy of Agricultural Sciences, 2020 (NAAS-Associate, 2020)

2) Prof. M. N. Razdan Memorial Mid-Career Award by the Society of Animal Physiologists of India (SAPI), 2025

3) Mid-Career Scientist Award 2023 during the Annual Conference of the Animal Physiologists Association at ICAR-CSWRI, Avikanagar.

4) Dr. G. B. Singh Memorial Award 2024 of the Indian Society for Study of Animal Reproduction (ISSAR) in recognition of the meritorious contribution to the research in Animal Reproduction.

5) Dr. S. K. Sirohi Memorial Outstanding Young Researcher Award, 2020

6) Appreciation Award for Outstanding contribution in Research and Institutional Activities, 2023

7) Appreciation Award for Outstanding contribution in Research and Institutional Activities, 2021

8) Associateship of the National Academy of Dairy Sciences: Received an 'Associate Fellow Award' by National Academy of Dairy Sciences (NADSI), 2018

9) ICAR International Fellowship, 2011

10) ICAR-Junior Research Fellowship, (2004 – 2006)

11) Vice-chancellor Gold Medal in Graduation (B.V.Sc. & A.H.)

12) Merit scholarship during Graduation (1999 – 2004)

13) Received Best Oral Presentation Award during National Symposium and XXXIII Annual Conference of Society of Animal Physiologists of India (SAPICON 2025) organized at at Department of Veterinary Physiology, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry from February 25 - 27, 2026.

14) Received Best Oral presentation on 'Effect of silver nanoparticles on serum-starved caprine dermal fibroblasts cells: Cytotoxicity, Apoptosis, and Gene Expression Analysis' in National Conference of Indian Society for Sheep and Goat Production and Utilization (ISSGPUCON 2025) on "Transforming Small Ruminant Production: Empowering Precision Farming and Genomic

Innovations for Enhanced Productivity and Sustainable Development", from 05th to 07th March 2025.

15) Best Oral Presentation Award (First) in the conference of Society of Animal Physiologist of India (SAPI), ICAR-NDRI Karnal-2018

16) Best Oral Presentation Award in the Asian Regional Conference on Goats (ARCG)-2018, AMITY, Jaipur

17) Best Oral Presentation award during 'International Conference and Expo on Agriculture and Veterinary Sciences: Research and Technology', held during October 23-25, 2017 at Professor Jai Sankar Telangana State Agriculture University (PJTSAU), Hyderabad.

18) Best Oral Presentation award during National Seminar on 'Small Ruminants: National Scope on Upscaling Production to Products value addition and their safety', held during 9th – 10th, November, 2017 at ICAR-CIRG, Makhdoom.

19) Received Best Poster presentation on 'The influence of extracellular matrix proteins on the post-thaw quality of cryopreserved caprine dermal fibroblasts' in National Conference of Indian Society for Sheep and Goat Production and Utilization (ISSGPUCON 2025) on "Transforming Small Ruminant Production: Empowering Precision Farming and Genomic Innovations for Enhanced Productivity and Sustainable Development", from 05th to 07th March 2025.

Research Support: Ongoing/completed Research Projects

Sr. No.	**Title of the project**	**Funding Agency**	**Date of sanction and duration**
1.	Production of double-muscled mass farm animals using CRISPR (NPGET, Goat component; **PI)**	ICAR	01.07.2024
2.	Development of strategies for competent embryo production and efficient cryopreservation for faster propagation of superior goat germplasm **(PI)**	NLM	15.03.2023 (Three years)
3.	Consortium Research Platform (CRP) project on Agrobiodiversity (**PI)**	ICAR	01.04.2023 (Three years)
4.	Production of clone goat embryos and assessment of their survival after *in vivo* transfer **(PI)**	Institute	01.10.2020 (Three years)
5.	Development and validation of a point-of-care pregnancy test for goats **(PI)**	Institute	01.08.2025 (Three years)
6.	Production of double-muscled mass farm animals using CRISPR **(Co-PI)**	NASF	31.12.2020 (Three years)

7.	Evaluation of Laparoscopic Artificial Insemination in goats for efficient utilization and conservation of Jamunapari buck germplasm **(Co-PI)**	UP-CST	01.04.2025 (Three years)
8.	Development and evaluation of efficient regimen for estrus synchronization in major Indian goat breeds **(Co-PI)**	NLM	18.03.2022 (Three years)
9.	Establishment of efficient culture and transplantation system for male goat germ-cells **(PI)**	DBT	20.07.18 (Three years)
10.	Development and validation of a peptide-based immunoassay: application for early pregnancy diagnosis in goats **(PI)**	SERB-DST	11.04.16 (Three years)
11.	Isolation, characterization and development of a culture method for long term preservation of spermatogonial stem cells for doom pigs **(Co-PI)**	DBT	09.01.2017 (Three years)

Research Publications

2025

1. **Singh, S. P.*,** Pathak, J., Pathak, M., Ranjan, R., Soni, Y. K., & Singh, M. K. (2025). Functional assessment and comparison of different methods of genomic DNA extraction from fresh ejaculated and cryopreserved caprine sperms for enhanced quality and long-term DNA banking. **Small Ruminant Research.** Volume 251, October 2025, 107565
2. Dayanidhi Jena, Suresh Dinkar Kharche, **Shiva Pratap Singh*,** Gururaj Kumaresan, Sonam Rani, Juhi Pathak, Chetna Gangwar, Rahul Kumar, Mahesh Shivanand Dige, Sabita Behera and Sanjay Kumar Singh. 2025. Establishment of safe and efficient infertile goat model using cyclophosphamide and its implications at the cellular and molecular level. **Beni-Suef University Journal of Basic and Applied Science**, 14:128.
3. Pathak, J., **Singh, S.P.***, Pathak, M., Khandelwal, V., Soni, Y.K. and Singh, M.K., 2025. Adhesion extracellular matrix proteins improve in vitro cellular and functional properties of enriched caprine adult dermal fibroblast. ***In Vitro Cellular & Developmental Biology-Animal*****,** *61*(9), pp.1039-1045.
4. Pathak, M., **Singh, S. P.*,** Pathak, J., Goel, A., Soni, Y. K., & Singh, M. K. (2025). Growth factors and culture media dependent in vitro expansion and characteristics of enriched spermatogonial stem cells derived from adult caprine testis. **Indian Journal of Experimental Biology,** 63(5).

5. Juhi Pathak, **Shiva Pratap Singh*,** Manisha Pathak, Anjana Goel, Yogesh Kumar Soni, Manoj Kumar Singh. 2025. Enhanced post-thaw functional characteristics of cryopreserved caprine dermal fibroblasts through adhesion to extracellular matrix proteins. **Molecular Biology Reports** Jan 12;52(1):116. doi: 10.1007/s11033-025-10227-6.
6. Yogesh Kumar Soni, **Shiva Pratap Singh,** Suresh Dinkar Kharche, Vishal Khandelwal, Juhi Pathak, Manisha Pathak, Ravi Ranjan. Efficacy of Hormonal Stimulation on Laparoscopic Ovum Pick-Up Response in Jakhrana Goats. **Reproduction in Domestic Animals,** 2026; 61: e70181.

2024

7. M. K. Singh, R Pourouchottamane, A. Kumar, **S. P. Singh,** Ravi Ranjan, A. K. Dixit, Nitika Sharma, and Ravindra Kumar**.** 2024. Multiplier flock scheme in Barbari goats: An entrepreneurship model for in situ breed conservation and improvement. **Indian Journal of Animal Sciences** 94 (1): 72–76.
8. Juhi Pathak, **Shiva Pratap Singh*,** Manisha Pathak, Anjana Goel, Yogesh Kumar Soni and Manoj Kumar Singh. 2025. Enhanced post-thaw functional characteristics of cryopreserved caprine dermal fibroblasts through adhesion to extracellular matrix proteins. **Molecular Biology Reports** 52:116.
9. Y. K. Soni, **S.P. Singh,** S.D. Kharche, R. Ranjan and M.K. Chatli. Successful birth of India's first goat kid through the laparoscopic artificial insemination technique using frozen-thawed semen**. Indian Journal of Small Ruminants** 2024, 30 (1): 186-189.

2023

10. J. Pathak, **S. P. Singh*,** S. D. Kharche, A. Goel, Y. K. Soni, R. Kaushik, M. Kose, A. Kumar. 2023. Cell culture media dependent in vitro dynamics and culture characteristics of adult caprine dermal fibroblast cells. **Scientific Reports.** 22;13(1):13716.
11. S. A. Quadri, **S. P. Singh*,** S. D. Kharche, J. Pathak, A. Saxena, Y. K. Soni, D. Swain. 2023. Different effects of sugars and methods to preserve post-thaw functional properties of cryopreserved caprine spermatogonial stem cells. **Cells Tissues Organs.** 0,1–17.
12. S. D. Kharche, **S. P. Singh*,** J. Pathak, D. Jena, S. Rani and K. Gururaj. 2023. Low oxygen tension affects proliferation and senescence of caprine bone marrow mesenchymal stem cells in in vitro culture condition. **The Indian Journal of Animal Sciences**. 93 (1): 33–38.
13. S. D. Kharche*, J. Pathak, A.K.S. Sikarwar, C. Gangwar, R. Ranjan and **S. P. Singh. 2023.** Developmental potential of artificially produced chimeric embryos following transfer to surrogate goats. **Indian Journal of Small Ruminants**. 29 (1): 40–44.

2022

14. **S. P. Singh*,** S. D. Kharche, M. Pathak, Y. K. Soni, R. V. S. Pawaiya, S. A. Quadri, M. K. Singh & M. S. Chauhan. 2022. Establishment of effective and safe recipient preparation for germ-cell transplantation with intra-testicular busulfan treatment in pre-pubertal Barbari goats. **Theriogenology.** 189:270–279.
15. **S. P. Singh*,** S. D. Kharche, Y. K. Soni, M. Pathak, R. Ranjan, S. K. Majhi, R. V. S. Pawaiya, M. K. Singh & M. S. Chauhan, 2022. Successful in-vivo transplantation of cultured and enriched testicular germ cells of pre-pubertal bucks to busulfan treated homologous recipients. **Cells Tissues Organs.** doi.org/10.1159/000523891.
16. **S. P. Singh***, S. D. Kharche, M. Pathak, Y. K. Soni, R. Ranjan, M. K. Singh & M. S. Chauhan. 2022. Reproductive stage- and season-dependent culture characteristics of enriched caprine male germline stem cells. **Cytotechnology.** doi.org/10.1007/s10616-021-00515-x.
17. D. Gupta, S. D. Kharche, **S. P. Singh*,** J. Pathak, M. Pathak & M. S. Chauhan. 2022. Effect of poly-D-lysine on proliferation and senescence of caprine spermatogonial stem cells in-vitro. **Indian Journal of Experimental Biology.** 60, 161–168.
18. M. K. Singh, M. S. Dige, **S. P. Singh,** A. Kumar, G. R. Gowane, 2022. Genetic studies on the estimates of (Co) variance components for growth traits in Barbari goat. **Small Ruminant Research.** 210, 106668. doi.org/10.1016/j.smallrumres.2022.106668.
19. R. Ranjan, M. Kumar, D. K. Swain, **S. P. Singh,** S. D. Kharche, M.S. Chauhan. 2022. Vitamin B7 protects DNA damage and stabilizes mitochondrial transmembrane potential from cryoinjury. **Small Ruminant Research.** 212, 106719, doi.org/10.1016/j.smallrumres.2022.106719.
20. S. Saraswat, G. Kumaresan, C. Gangwar, M. K. Singh and **S P Singh.** Method for isolation of high quality intact RNA from buck spermatozoa. **Indian Journal of Small Ruminants** 2022, 28(1): 196-199
21. R. Ranjan, M. Kumar, **S. P. Singh,** S. D. Kharche, M. K. Singh & M. S. Chauhan. 2022. Biotin fortification to sperm preparation medium enhances the motility and longevity by reducing lipid peroxidation in cryopreserved sperm. **Indian Journal of Animal Sciences.** 92 (8): 965–967
22. S. D. Kharche, J. P., A. K. S. Sikarwar, S. Saraswat, R. Ranjan & **S. P. Singh.** Effect of hypoxia on production of caprine chimeric blastocyst. *2022.* **Indian Journal of Animal Sciences.** 92 (10): 1176–1178.
23. M. K. Singh, R Pourouchottamane, **S. P. Singh,** R. Kumar, N. Sharma, A. Kumar, G. Dass and R. K Pundir**.** 2022. Non-genetic factors affecting pre-weaning growth and survival rate in Barbari kids under semi-intensive management system. **Indian Journal of Animal Sciences** 92 (9): 1081–1087

24. S. Rani, S. D. Kharche, D. Jena, **S. P. Singh,** Y. K.Soni, R. Nigam & R. Singh. 2022. Growth kinetics of caprine bone marrow-derived mesenchymal stem cells at different passages. **Indian Journal of Small Ruminants**. 28(2): 284–288.

2021

25. Shiva Pratap Singh*, Kharche S. D., Pathak M, Soni YK, Gururaj K, Sharma AK, Singh MK, Chauhan MS. 2021. Temperature response of enriched pre-pubertal caprine male germline stem cells in vitro. **Cell Stress Chaperones.** doi: 10.1007/s12192-021-01236-y.

26. Shiva Pratap Singh*, Suresh Dinkar Kharche, Manisha Pathak, Ravi Ranjan, Yogesh Kumar Soni, Manoj Kumar Singh, Pourouchottamane R, Manmohan Singh Chauhan. 2021. Low oxygen tension potentiates proliferation and stemness but not multilineage differentiation of caprine male germline stem cells. **Molecular Biology Reports.** doi: 10.1007/s11033-021-06501-y.

27. Shiva Pratap Singh*, Suresh Dinkar Kharche, Manisha Pathak, Ravi Ranjan, Yogesh Kumar Soni, Sonia Saraswat, Manoj Kumar Singh, Manmohan Singh Chauhan. 2021. Differential effects of extracellular matrix proteins on in vitro culture and growth characteristics of caprine male germ cells. **In Vitro Cellular & Developmental Biology – Animal.** 57(4):373–380. doi: 10.1007/s11626-021-00559-5.

28. Shiva Pratap Singh*, Ramachandran Natesan, Nandini Sharma, Anil Kumar Goel, Manoj Kumar Singh and Suresh Dinkar Kharche. 2021. Assessment of pregnancy-associated glycoprotein profile in milk for early pregnancy diagnosis in goats. **Animal Bioscience,** 34 (1):26–35. doi.org/10.5713/ajas.19.0399

29. R. Ranjan, P. Singh, C. Gangwar, **S. P. Singh,** D. K. Swain and S. D. Kharche. 2021. Fortification of catalase improves post thaw fertility of goat semen. **Iranian Journal of Applied Animal Science,** 11(3), 587–593.

30. Ravi Ranjan, Pallavi Singh, **Shiva Pratap Singh,** Kumaresan Gururaj, Suresh Dinkar Kharche and Manoj Kumar Singh. 2021. Status of beta defensin-1 and its effect on post thaw semen fertility gene expression in Indian goat breed. **CryoLetters** 42 (3), 137–145.

31. Manisha Pathak, S. D. Kharche, **S. P. Singh,** Juhi Pathak, Deeksha Gupta and M. S. Chauhan. 2021. Effect of stage of puberty on culture characteristics of goat Spermatogonial stem cells. **The Indian Journal of Small Ruminants**, 27(1): 37–42.

32. Sonam Rani, S. D. Kharche, **S. P. Singh,** Chetna Gangwar, D. Jena and Ashok Kumar. 2021. Isolation, Enrichment and characterisation of Caprine bone marrow derived mesenchymal stem cells. **The Pharma Innovation Journal,** 10(4):166–169.

2020

33. N. Sharma, **S. P. Singh*,** A. Bharadwaj. 2020. Changes in milk and plasma progesterone and pregnancy-associated glycoprotein and their relationships with the foetal number during early pregnancy in Jakhrana goats. **The Indian Journal of Animal Science,** 90 (12): 1589–1593.

34. N. Sharma, **S. P. Singh*,** A. Bharadwaj, N. Ramachandran. 2020. Pregnancy-associated glycoproteins as a potential marker for diagnosis of early pregnancy in goats: A scoping reviewing. **Asian Pacific Journal of Reproduction,** 9(6): 255–260.

35. Dayanidhi Jena, Suresh Dinkar Kharche, **Shiva Pratap Singh,** Sonam Rani, Mahesh Shivanand Dige, Ravi Ranjan, Sanjay Kumar Singh, Harendra Kumar. 2020. Growth and proliferation of caprine bone marrow mesenchymal stem cells on different culture media. **Tissue and Cell,** 67: 101446.

36. Arpana Das, Dipak Bhuyan, Partha Pratim Das, Simanta Koushik, Bula Das, Arundhati Phookan, Suresh Dinkar Kharche, **Shiva Pratap Singh,** Manmohan Singh Chauhan. 2020. Comparing the stemness and morphobiometry of spermatogonial stem cells from Doom pig on different days of culture. **Czech Journal of Animal Science,** 65(2): 66–76.

37. R. Ranjan, P. Singh, S. D. Kharche, C. Gangwar, N. Ramachandran, **S. P. Singh,** M. K. Singh. 2020. Effect of temperature humidity index on sexual behavior and semen quality in Barbari buck under Indian climatic condition. **Small Ruminant Research,** 193:1062–1064.

38. Juhi Pathak, S. D. Kharche, Anjana Goel, A. K. S. Sikarwar, Sonia Saraswat, Ravi Ranjan, Chetna Gangwar, **S. P. Singh,** A. K. Goel and M. S. Chauhan. 2020. Assessment of different stages of parthenogenetic embryos for production of embryonic stem cell like colonies. **The Indian Journal of Animal Sciences,** 90 (5): 725–727.

39. Manisha Pathak, S. D. Kharche, **S. P. Singh,** D. Jena, Juhi Pathak, Deeksha Gupta, A. K. S. Sikarwar and M. S. Chauhan. 2020. Fetal bovine serum (FBS) enhances proliferation and colonization of caprine spermatogonial stem cells. **The Indian Journal of Animal Sciences,** 90 (5): 703–707.

40. N. Sharma, **S. P. Singh*** and A. Bharadwaj. 2020. Temporal changes in circulating progesterone and pregnancy-associated glycoprotein concentrations in Jakhrana goats with failed pregnancy. **The Indian Journal of Animal Sciences,** 90 (6): 861–864.

41. N. Ramachandran, **S. P. Singh,** Arvind Kumar, R. Pourouchottamane, Ravi Ranjan, B. Rai, Navnath Indore and A. K. Goel. 2020. Effect of plastic slatted flooring on growth and welfare of stall-fed kids. **The Indian Journal of Animal Sciences,** 90 (4): 623–627.

42. M. K. Singh, Ravindra Kumar and **S. P. Singh.** 2020. Comparative performance of Barbari goats under different rearing system in semi-arid region. **The Indian Journal of Animal Sciences,** 90 (3): 483–486.

43. D. Jena, S. D. Kharche, K. Gururaj, **S. P. Singh,** Sonam Rani and A. Pachoori. 2020. Expression of heat shock proteins (HSPs) in caprine bone marrow-derived mesenchymal stem cells. **The Indian Journal of Small Ruminants,** 26(1), 128–131.

2019

44. S. P. Singh*, N. Ramachandran, N. Sharma, A. K. Goel, N. M. de Sousa, J. F. Beckers, D. K. Swain, M. K. Singh, S. D. Kharche. 2019. Relationship of foetal number and parity in Barbari goats to plasma profile of caprine pregnancy-associated glycoprotein (caPAG) during gestation and the early postpartum period. **Animal Reproduction Science,** 210 106190.

45. S. P. Singh*, Ramachandran N., Sharma N., Goel A. K., K. Gururaj, S. D. Kharche. 2019. Temporal changes in plasma profile of pregnancy-associated glycoprotein, progesterone and estrone sulfate in relationship to fetal number during early- and mid-pregnancy in goats. **Animal Reproduction Science,** 205: 115–125.

46. S. P. Singh*, Ramachandran N., Sharma N., Goel A. K., Singh M. K., Kharche S. D. 2019. Pregnancy-associated glycoprotein profile in milk and its relationship with the circulating level during early pregnancy in goats. **Small Ruminant Research,** 173:81–87.

47. R. Ranjan, **S. P. Singh,** K. Gururaj, S. K. Jindal and M. S. Chauhan. 2019. Status of beta defensin-1 in Indian goat breeds. **The Indian Journal of Animal Sciences** 89 (10): 1078–1081.

48. A. Kumar, N. Ramachandran, **S. P. Singh,** N. Sharma, R. Pourouchottamane, G. Dass and A.K. Goel. 2019. Plastic slatted flooring for intensive rearing of Muzaffarnagari lambs in semiarid region. **The Indian Journal of Small Ruminants,** 25(2): 231–233.

2018

49. S. P. Singh, R. Natesan, N. Sharma, M. K. Singh, A. Rahal. 2018. Lipopolysaccharide exposure modifies salivary and circulating level of cortisol in goats. **Small Ruminant Research,** 162: 30–33.

50. S. P. Singh, G. Dass, R. Natesan, Y. Kushwah, N. Sharma, A. Kumar. 2018. Endocrine and haemato-biochemical profile of lambs raised in semiarid region with different growth potentials during post-weaning period. **Turkish Journal of Veterinary and Animal Sciences,** 42: 120-129.

51. S. P. Singh, N. Ramachandran, N. Sharma and A. Kumar. 2018. Lipopolysaccharide-induced changes in physiological and haematological variables of Jamunapari goats. **The Indian Journal of Animal Sciences,** 88 (1): 79–83.

52. A. K. Goel, S. D. Kharche, **S. P. Singh,** R. Ranjan, S. K. Jindal, S. Kumar and N. Ramachandran. 2018. Testosterone and progesterone levels during different reproductive stages in Jamunapari goats. **The Indian Journal of Small Ruminants,** 24(1): 80–83.

53. R. Ranjan, **S. P. Singh,** K. Gururaj, S. K. Jindal and M. S. Chauhan. 2018. Effect of beta defensin-1 on post-thaw quality of cryopreserved Barbari buck semen. **The Indian Journal of Animal Sciences,** 88 (10): 1160–1162.

2017

54. S. P. Singh, N. Ramachandran, M. K. Tripathi and S. Bhusan. 2017. Physiological, biochemical and endocrine responses of goat kids maintained on two different floor types in hot-dry weather conditions. **The Indian Journal of Animal Science,** 87 (2): 223–228.

55. N. Ramachandran, **S. P. Singh,** M. K. Tripathi, S. Paul, S. Bhusan and S. K. Jindal. 2017. Intake, growth performance and worm load in goat kids maintained on conventional soiled or raised wooden slatted floor. **The Indian Journal of Animal Science,** 87 (3): 356–360.

56. N. Ramachandran and **S. P. Singh.** 2017. Effect of floor type on body surface temperature and their relationship with physiological variables in kids during hot dry period. **The Indian Journal of Small Ruminants,** 23(1): 30–34.

2016

57. K. Goel, S. D. Kharche, S. K. Jindal, S. Kumar, R. Ranjan, **S. P. Singh** and S. Bhushan. 2016. Progesterone profile and ultrasonographic scanning of uterus during post-partum period in Jamunapari goats. **The Indian Journal of Animal Science,** 86 (9): 1003-1005.

2015

58. Heinz, J. F. L., **S. P. Singh,** U. Janowitz, M. Hoelker, D. Tesfaye, K.Schellander, and H. Sauerwein. 2015. Characterization of adiponectin concentrations and molecular weight forms in bovine body fluids related to reproduction. **Theriogenology,** 83: 326–333.

59. L. Locher, S. Haussler, L. Laubenthal, **S. P. Singh,** J. Winkler, A. Kinoshita, A. Kenez, J. Rehage, K. Huber, H. Sauerwein, S. Danicke. 2015. Effect of increasing body condition on key regulators of fat metabolism in subcutaneous adipose tissue depot and circulation of nonlactating dairy cows. **Journal of Dairy Science,** 98(2): 1057-1068.

2014

60. S. P. Singh, S.Häussler, J. F. L. Heinz, B. Saremi, B. Mielenz, J. Rehage, S. Dänicke, M. Mielenz, and H. Sauerwein. 2014. Supplementation with conjugated linoleic acids extends the adiponectin deficit during early lactation in dairy cows. **General and Comparative Endocrinology,** 198: 13-21.

61. **S. P. Singh,** S. Häussler, J. F. L. Heinz,S. H. Akter, B. Saremi, U. Müller, J. Rehage, S. Dänicke, M. Mielenzand H**.** Sauerwein. 2014. Lactation driven dynamics of adiponectin supply from different fat depots to circulation in cows. **Domestic Animal Endocrinology,** 47: 35-46.
62. **Singh, S. P.,** S. Häussler, J. J. Gross, R. M. Bruckmaier, and H. Sauerwein. 2014. Circulating and milk adiponectin change differently during energy deficiency at different stages of lactation in dairy cows. **Journal of Dairy Science,** 97(3): 1535-5342.
63. C. Kopp, **S. P. Singh**, P. Regenhard, H. Sauerwein and M. Mielenz. 2014. *Trans*-cinnamic acid increases adiponectin and the phosphorylation of AMP-activated protein kinase via G-protein coupled receptor 109A in 3T3-L1 adipocyte. **International Journal of Molecular Sciences,** 15: 2906-2915.
64. C. Kopp, A. Hosseini, **S. P. Singh,** P. Regenhard, H. Khalilvandi-Behroozyar, H. Sauerwein and M. Mielenz. 2014. Nicotinic acid increases adiponectin secretion from differentiated bovine preadipocytes through g-protein coupled receptor signaling. **International Journal of Molecular Sciences,** 15: 21401-21418.

2013

65. M. Mielenz, B. Mielenz, **S. P. Singh,** C.Kopp, J. Heinz, S. Häussler, and H. Sauerwein. 2013. Development, validation, and pilot application of a semiquantitative Western blot analysis and an ELISA for bovine adiponectin. **Domestic Animal Endocrinology,** 44: 121–130.
66. C. Weber, C. Hametner, A. Tuchscherer, B. Losand, E. Kanitz, W. Otten, **S. P. Singh,** R. M. Bruckmaier, F. Becker, W. Kanitz, and H. M. Hammon. 2013. Variation in fat mobilization during early lactation in high yielding dairy cows affect feed intake, body condition as well as glucose and lipid metabolism. **Journal of Dairy Science,** 96: 165–180.

2012 and earlier

67. V. K. Bharti, **S. P. Singh,** P. Kumar, R. P. Misra, and N. Bhavna. 2012. Effect of solar eclipse on certain blood biochemicals in goats under intensive and extensive housing systems. **Indian Journal of Animal Sciences,** 82 (8): 844–847.
68. **S. P. Singh,** O. K. Hooda, S. S. Kundu, and S. Singh. 2012. Biochemical changes in heat exposed buffalo heifers supplemented with yeast. **Tropical Animal Health and Production,** 44: 1383–1387.
69. **S. P. Singh,** O. K. Hooda, and P. Kumar. 2011. Effect of yeast supplementation on feed intake and thermal stress mitigation in buffaloes. Indian Journal of Animal Sciences, 81 (9): 961–964.
70. V. Srivastava, P. S. Niranjan, Udeybir, **S. P. Singh,** and J. Singh. 2007. Effect of grainless ration on dry matter intake, growth and feed conversion efficiency in Murrah buffalo calves**. Veterinary Practitioner,** 8 (2): 143-145.

71. J. Singh, P. S. Niranjan, Udeybir, and **S. P. Singh.** 2007. Transferrin polymorphism and its correlation with first lactation milk yield in Sahiwal cattle. **Veterinary Practitioner,** 8 (2): 152-153.