

CURRICULUM VITAE

Name **BHANU P CHOWDHARY**
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A. Education/Training

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
College of Veterinary. & Animal Sciences, Bikaner, India	B.V.Sc. & A.H	1978	Veterinary Degree
College of Veterinary. & Animal Sciences, Bikaner, India	M.V.Sc.	1980	Animal Breeding & Genetics
Swedish University of Agricultural Sciences, Uppsala, Sweden	VMD (Ph.D.)	1991	Disease Genetics

B. Positions and Employment

1978-1980.....**Jr. Research Fellow**, Department of Animal Breeding and Genetics, College of Veterinary and Animal Sciences, Bikaner, Rajasthan, India.

1980-1982.....**Instructor & In-charge Sheep Breeding Farm**, Department of Animal Breeding and Genetics, College of Veterinary and Animal Sciences, Bikaner, Rajasthan, India.

1982-1986.....**Assistant Professor**, Department of Animal Breeding and Genetics, College of Veterinary and Animal Sciences, Bikaner, Rajasthan, India.

1986-1987.....**Guest Scientist**, Hungarian Academy of Science, Budapest, Hungary. Hungary. *(Recipient of Hungarian Government Research Fellowship for undertaking a PhD research – which I declined after one year.)*

1987-1991.....**Research Fellow**, Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden. *(Recipient of Swedish Institute's International Scholarship - 2yrs; Swedish Ag. Univ. doctoral scholarship – 1yr)*

1991-1994.....**Senior Res. Scientist**, Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden.

1994-1998.....**Associate Professor**, Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden.

1998-2000.....**Associate Professor** (tenured), Division of Animal Genetics, The Royal Veterinary and Agricultural University, Copenhagen, Denmark.

Sept 2000 -.....**Associate Professor** (*tenure in 2003*), Veterinary Anatomy and Public Health, College of Veterinary Medicine, Texas A&M University, College Station, Texas.

Sept. 2004 -.....**Professor**, Veterinary Integrative Biosciences, College of Veterinary Medicine & Biomedical Sciences, Texas A&M University, College Station, Texas.

C. Awards and Honors

- 1978-1980 *Junior Research Fellow*. College of Veterinary and Animal Sciences, Bikaner, Rajasthan India
 1986-1987 *Hungarian National Research Fellow*. Hungarian Academy of Sciences, Budapest, Hungary.
 1988-1990 *Research Fellow*. Swedish Institute, Stockholm, Sweden.
 1994 Winner of the Best Poster Award at the Inter-Nordic Genome Conference: *IVth Workshop of the Nordic Genome Initiative "Beyond Mapping single genes", 3rd-5th Sept. 1994, Helsinki, Finland.*
 1996 Winner of the Nature Genetics AND Nature Best Poster Award among over 519 posters from around the world: *Human Genome Meeting, March 22-24, 1996, Heidelberg, Germany.*
 1998 "*Specialized Scientist*", Position awarded for a period of 6 years by the Swedish Council for Forestry & Agricultural Research, Sweden (*position was declined by me*)
 2004 Pfizer Award: For Research Excellence at the National level, College of Veterinary Medicine, Texas A&M University, College Station, Texas.
 2006 Distinguished Achievement Award (Research), AFS, Texas A&M University
 2008 Faculty Fellow, Texas AgriLife Research (TAES), Texas A&M University

NB: - Awards and Honors are traditionally not common in Sweden and Denmark where I spent ~13 years.
 - Since joining Texas A&M, my graduate students have won numerous awards at college, university, state and national level competitions during the past eight years.

Research articles Awarded Cover-page of prestigious international peer-reviewed journals

2000	Genome Research	2005	Mammalian Genome
2002	Genomics	2005	Genomics
2003	Genome Research	2007	Genomics
2004	Cytogenetics & Genome Research		

D. Professional Experience

PUBLICATIONS:

1. Articles in peer-reviewed international journals: 153
2. Book chapters: 9
3. Articles awarded cover-page of reputed journals: 6
4. Articles cited >100 times: 7

EDITORIAL BOARDS:

Cytogenetics and Cell Genetics: 2000 - continued
 Journal of Applied Genetics: 2002-2005

Invited Chief Editor:

1. Cytogenetics and Genome Research Vol. 102 (Animal Genome), No. 1-4, 2003
2. Genomics of Domestic Animals. Vol. 7 of Genome Dynamics Series (*to be published Fall 2009*)
3. Equine Genomics. (A book with 24 chapters on various aspects of the horse genome; *slated for publication in Fall 2009*).

SERVICE ACTIVITIES:

1. Manuscript Review for Journals:

Genome Research	Genetics Selection & Evolution
Trends in Genetics (TIG)	Animal Genetics
Gene	Journal of Veterinary Medical Association
Genomics	Hereditas
Mammalian Genome	Natur Wissenchaften (Springer)
Cytogenetics and Cell Genetics	Journal of Applied Genetics
Chromosome Research	Genetics, Selection and Evolution

Technical Tips Online
Theriogenology

American Journal of Veterinary Research
PloS - Genetics

E. RESEARCH EXPERIENCE

- ~162 publications in international peer-reviewed journals - includes 9 book chapters
- Presented 46 review articles/invited-lectures at various national and international forums
- Summarized research activities/results at over 80 National & International conferences/ workshops
- Obtained research funding from various national, state and private agencies/organizations in USA, Denmark, Sweden and EU.

Research Funding obtained in USA (September 2000 – continued):

1. CVM Signature Program (Co-PI), CVM, TAMU. Development of interspecies model systems for the study of genome imprinting in the bovine. Amount: \$25,000. Duration: 1 year: 9/22/00-9/21/01.
2. Life Sciences Task Force (Co-PI), TAMU. Acquisition of significantly expanded high throughput DNA genotyping capabilities in the DNA technologies core lab. Amount: \$180,000. Instrumentation funding.
3. Equine Research Award (PI). Analyzing the equine genome to approach genes governing disease and performance traits. Amount: \$20,000. Duration: 1 year. 12/01/01 – 11/30/02. Amount: \$12,500. Duration: 1 year. 12/01/02 – 11/30/03.
4. CVM/VAPH Pre-R01 (PI). Targeted comparative sequencing of the Y chromosome in the horse. Amount: \$25,000. Duration: June 2002 – 1 year.
5. TITF (2002). (co-PI; PI: David Adelson). Development of web-based tools for real time physical and comparative maps. Amount: \$175,000. Duration: 2002-2003.
6. Schubot Center (PI). Identification of the genetic cause for Chondrodystrophy in highly endangered California Condor. Amount: \$10,000. Duration: 2002-2003. Amount: \$12,500. Duration: 2003-2004.
7. Texas Higher Education Coordinating Board- ARP (PI). Comparative genomics to identify disease traits in the horse. Amount: \$240,000. Duration: 2 years. 01/01/02 – 12/31/03.
8. TERF Award (PI). Establishing a resource family 'bank' to analyze inherited diseases and other traits of significance in the horse. Amount: \$47,423. Duration: June 2002-May 2004.
9. Havemeyer Foundation (PI). RH mapping in the horse—establishing infrastructure for analysis. Amount: \$50,000. Duration: 2002-2006.
10. American Quarter Horse Association (PI) Identifying molecular causes of stallion infertility for improved diagnostics and prevention. Amount: \$90,288 (2003-2005).
11. USDA-CSREES. (PI) High resolution integrated genetic and physical map of the equine genome. (Chowdhary BP, Mickelson J, Skow L, Adelson D.) Amount: \$870,892 (Jan 2004- Dec. 2006).
12. Texas Higher Education Coordinating Board - ATP. (PI). Targeted mapping of four horse chromosomes for analyzing disease traits. (Chowdhary BP & Womack JE). Amount: \$200,000 (Jan. 2004 - Dec. 2005).
13. Private Equine Foundation. (PI-joint with Dr. Skow). Genetic analysis of performance traits in horses. Amount: Phase I \$113,500 (2004-2005) and Phase II \$119,000: Total: \$232,500.
14. Havemeyer Foundation (PI) RH mapping in the horse – establishing infrastructure for analysis. Amount: \$60,000., Duration: 1 yr. (2002-2007).
15. Texas Equine Research Fund – TERF (PI). Whole genome cDNA microarray for improved equine health and fertility. Amount: \$25,000, Duration: 2005-2006. Amount: \$50,000, Duration: 2006-2007.
16. Grayson Jockey Club Research Foundation. (PI). Role of Y chromosome factors in regulating stallion fertility. Amount: \$50,000, Duration: 2006-2008.
17. Morris Animal Foundation. (Joint PI: consortium proposal; PI: Ernie Bailey). Horse Genomics: Linear Mapping and microarray development. Amount: \$300,000, Duration: 2006-2008.
18. VIBS instrumentation fund (PI). ABI 3730 for sequencing and genotyping. Amount: \$230,000. Duration: One time grant.
19. Link Endowment Fund. (PI) Equine Genome Analysis.
 - Amount: \$27,972, Duration: 2003-2004,
 - Amount: \$51,000, Duration: 2004-2005,
 - Amount: \$69,000, Duration: 2005-2006,
 - Amount: \$91,000, Duration: 2006-2007,

- Amount: \$77,000, *Duration: 2007-2008*,

- Amount: \$75,000, *Duration: 2008-2009*.

Total: **\$390,972**

20. Winn Feline Foundation. (co-PI). Targeted gene mapping in gaps of human/feline comparative map. Amount: \$13,700 Duration: 05/01/2005-04/30/2007.
21. NIH – Superfund project. (co-PI; Dr Safe is PI). Procedures to assess Hazard of a Superfund Site SBRD, Program #2. Amount: \$1,210,948. Duration: 04/01/1997-03/31/2008.
22. Canine Health Foundation (co-PI). Characterizing the Canine Y chromosome: Identifying gene targets for male infertility. Amount: \$96,466. Duration: 11/01/2006-10/31/2007.
23. Texas Equine Research Fund (TERF) (coPI; PI: Adelson D). Bioinformatics Support for Equine Genomics. Amount: \$ 26,000. Duration: 09/01/2005- 08/01/2007.
24. TAMU (CVM + TAES): Instrumentation support: Image analysis system for FISH. (PI Chowdhary) Amount: \$45,000 Duration; One time grant, 2006.
25. USDA 43.0 Animal Genome (PI). Integrated physical, functional and comparative maps of cattle, horse and pig Y chromosomes. Amount: \$995,801. Duration: 03/01/2007-02/28/2010.
26. USDA – Formula Animal Health. Postnatal changes in foal leukocyte gene expression in response to virulent Rhodococcus Equi (PI Noah Cohen; Co-PI Chowdhary). Amount: \$42,200. Duration: August 2007- July 2008.
27. TAMU (CVM+AgriLife Research): Generation of an Equine Whole Genome Oligoarray (PI). Amount: \$180,000. Duration: 2007-2008.
28. VIBS (Departmental Grant): Purchase of Real time Quantitative PCR machine for functional genomics research in horses. Amount: \$45,000. Duration: 2008.
29. Texas Equine Research Fund – TERF Seed grants (PI). i) Genetic analysis of Laminitis and RAO in horses and ii) Archiving samples for studying race-track injuries in horses. Amount: \$40,000, Duration: 2008-2009.

E. TEACHING EXPERIENCE

I have 24 years of teaching experience in various Veterinary Colleges/Institutions in India, Sweden, Denmark and USA. I have also taught a Basic Veterinary Genetics course at the Veterinary School in Sydney, Australia under an exchange program initiated by me in Sweden. Below is a summary of the number of graduate students, postdocs, and undergraduate students mentored (advised, taught and trained) by me in my laboratory during my stay in different countries.

Number of graduate students mentored:	30 (chair for 10 students)
Number of post-doctoral researchers mentored:	14
Number of additional graduate & postdoctoral researchers trained:	17
(short research trainees)	
Number of graduate students (rotation – in US only):	12
Number of undergraduate students trained in my laboratory (in US only):	28

LIST OF PUBLICATIONS

***NB:** Conference/workshop/meetings abstracts are NOT listed here because they are redundant with actual published papers. Also, in my view they do not merit as peer-reviewed articles. However, I am mentioning titles of two of the posters because they won major international awards. These posters are not numbered and are not included in the total number of publications.*

Internationally awarded posters

Nilsson, M., Malmgren, H., Samiotaki, M., Kwiatkowski, M., Johnsen, E., **Chowdhary, B.P.** and Landegren, U. 1994. Padlock probes for in-situ detection of gene sequences. IVth Workshop of the Nordic Genome Initiative "Beyond Mapping single genes", 3rd-5th Sept. 1994, Helsinki, Finland. (**Winner of the Best Poster Award at the Inter-Nordic Genome Conference**)

Chowdhary, B.P., Fronicke, L., Raudsepp, T., Gustavsson, I. and Scherthan, H. 1996. Comparative organization of the human, pig, cattle and horse genomes. Presented at The Human Genome Meeting (HGM 96), March 22-24, 1996, Heidelberg, Germany. (**Winner of the Nature Genetics AND Nature Best Poster Award among 519 posters from around the world**)

Publications in International Peer Reviewed Journals

In India:

1. **Chowdhary, B.P.** and Chaudhry, A.L. 1984. Evaluation of lifetime performance of Rathi cows and their crosses under arid conditions of Rajasthan. Trans. Inst. & Ucds. 9(1): 38-40.
2. **Chowdhary, B.P.** and Chaudhary, A.L. 1985. Age at first calving affecting measures of lifetime productivity in Rathi and Rathi crosses. Indian J. Anim. Sci. 55(4): 288-290.

In Hungary:

3. **Chowdhary, B.P.** and Kovács, A. 1987. Simple lymphocyte cultivation method for horse chromosomes. J. Dairy. Sci. 70: 241.

In Sweden (Swedish University of Agricultural Sciences, Uppsala, Sweden; 1989-1997):

4. **Chowdhary, B.P.**, Gustavsson, I., Kunavongkrit, A., Lohachit, C. and Mäkinen, A. 1989. Detailed mitotic description of the tandem fusion translocation differentiating river and swamp buffalo. *Buffalo J. 1*: 41-49.
5. Mäkinen, A., **Chowdhary, B.P.**, Mahdy, E., Andersson, L. and Gustavsson, I. 1989. Localization of the equine major histocompatibility complex (ELA) to chromosome 20 by in situ hybridization. *Hereditas 110*: 93-96.
6. Mahdy, E.A., Mäkinen, A., **Chowdhary, B.P.**, Andersson, L. and Gustavsson, I. 1989. Chromosomal localization of the ovine major histocompatibility complex (OLA) by in situ hybridization. *Hereditas 111*: 87-90.
7. Mäkinen, A., Mahdy, E., **Chowdhary, B.P.**, Andersson, L. and Gustavsson, I. 1989. Localization of the major histocompatibility complex in the silver and the blue fox - a confirmation of interspecific chromosome banding homologies. *Paper in the thesis of E. Mahdy, submitted to the Swedish Agricultural University, Uppsala Sweden.*
8. **Chowdhary, B.P.**, Harbitz, I., Mäkinen, A., Davies, W. and Gustavsson, I. 1989. Localization of the glucose phosphate isomerase gene to the p12-q21 segment of chromosome 6 in pig by in situ hybridization. *Hereditas 111*: 73-78.

9. Harbitz, I., **Chowdhary, B.P.**, Chaudhary, R., Kran, S., Frengen, E., Gustavsson, I. and Davies, W. 1990. Isolation, characterization and chromosomal assignment of a partial cDNA for porcine 6-phosphogluconate dehydrogenase. *Hereditas* 112: 83-88.
10. Harbitz, I., **Chowdhary, B.P.**, Saether, H., Hauge, J.G. and Gustavsson, I. 1990. A porcine genomic glucose phosphate isomerase probe detects a multiallelic restriction fragment length polymorphism assigned to chromosome 10pter in horse. *Hereditas* 112: 151-156.
11. Harbitz, I., **Chowdhary, B.P.**, Thomsen, P.D., Davies, W., Kaufmann, U., Kran, S., Gustavsson, I., Kristensen, K. and Hauge, J.G. 1990. Assignment of the calcium release channel gene, a candidate for the malignant hyperthermia locus, to the 6p11-q21 segment of chromosome 6. *Genomics* 8: 243-248.
12. **Chowdhary, B.P.**, Harbitz, I., Davies, W. and Gustavsson, I. 1991. Chromosomal localization of the glucose phosphate isomerase (GPI) gene in cattle, sheep and goat by in situ hybridization - chromosomal banding homology versus molecular conservation in Bovidae. *Hereditas* 114: 161-170.
13. **Chowdhary, B.P.**, Harbitz, I., Davies, W. and Gustavsson, I. 1991. Mapping of genes belonging to the halothane linkage group in pigs using in situ hybridization. *Gen. Sel. Evol.* 23: 96-99.
14. **Chowdhary, B.P.**, Harbitz, I., Davies, W. and Gustavsson, I. 1991. Tentative chromosomal assignment of the glucose phosphate isomerase gene in cattle, sheep and goat by *in situ* hybridization. *Gen. Sel. Evol.* 23: 91-95.
15. Gu, F., Harbitz, I., **Chowdhary, B.P.**, Davies, W. and Gustavsson, I. 1992. Mapping of the porcine lipoprotein lipase (LPL) gene to the chromosome 14q12-q14 by in situ hybridization. *Cytogenet. Cell Genet.* 59: 63-64.
16. **Chowdhary, B.P.**, Harbitz, I., Davies, W. and Gustavsson, I. 1992. Localization of the calcium release channel (CRC) gene in cattle and horse by in situ hybridization - evidence of conserved synteny with glucose phosphate isomerase. *Animal Genetics* 23: 43-50.
17. Chaudhary, R., **Chowdhary, B.P.**, Harbitz, I., Gustavsson, I. and Evans, C.T. 1992. Localization of the citrate synthase (CS) gene to the p12-p13 bands of chromosome 5 in pigs by in situ hybridization. *Hereditas* 117: 39-43.
18. Feng, G., Harbitz, I., **Chowdhary, B.P.**, Chaudhary, R. and Gustavsson, I. 1992. Localization of the 6-phosphogluconate dehydrogenase (PGD) gene in horses by in situ hybridization. *Hereditas* 117: 93-96.
19. Gu, F., **Chowdhary, B.P.**, Andersson, L., Harbitz, I. and Gustavsson, I. 1992. Assignment of the bovine immunoglobulin gamma heavy chain (IGHG) gene to chromosome 21q24 band by in situ hybridization. *Hereditas* 117: 237-240.
20. Gu, F., Harbitz, I., **Chowdhary, B.P.**, Bosnes, M. and Gustavsson, I. 1992. Chromosomal localization of the hormone sensitive lipase (LIPE) and insulin receptor (INSR) genes in pigs. *Hereditas* 117: 231-236.
21. **Chowdhary, B.P.**, Johansson, M., Chaudhary, R., Ellegren, H., Gu, F., Andersson, L. and Gustavsson, I. 1993. In situ hybridization mapping and RFLP analysis of the porcine albumin (ALB) and transferrin (TF) genes. *Animal Genetics* 24: 85-90.
22. Hassanane, M.S., Gu, F., **Chowdhary, B.P.**, Andersson, L. and Gustavsson, I. 1993. In situ hybridization mapping of the immunoglobulin gamma heavy chain (IGHG) gene to chromosome 20q23-q25 in river buffaloes. *Hereditas* 118: 285-288.
23. Chaudhary, R., **Chowdhary, B.P.**, Johansson, M. and Gustavsson, I. 1993. The gene for bovine interferon gamma (IFNG) maps to the q22-q24 bands of chromosome 5 in cattle. *Hereditas* 119: 11-14.
24. **Chowdhary, B.P.**, Johansson, M., Gu, F., Bräuner-Nielsen, P., Tomkinson, B., Andersson, L. and Gustavsson, I. 1993. Assignment of the linkage group EAM-TYRP2-

- TPP2 to chromosome 11 in pigs by in situ hybridization mapping of the TPP2 gene. *Chromosome Research* 1: 175-189.
25. Johansson, M., **Chowdhary, B.P.**, Gu, F., Ellegren, H., Gustavsson, I. and Andersson, L. 1993. Genetic analysis of the gene for porcine submaxillary gland mucin: Physical assignment of the MUC and interferon gamma genes to chromosome 5. *J. Heredity* 84: 259-262.
 26. Chaudhary, R., **Chowdhary, B.P.**, Harbitz, I. and Gustavsson, I. 1993. Localization of the ceruloplasmin (CP) gene to the q32-q33 bands of chromosome 13 in pigs by in situ hybridization. *Hereditas* 119: 7-10.
 27. Ellegren, H., Johansson, M., **Chowdhary, B.P.**, Marklund, S., Ruyter, D., Marklund, L., Bräuner-Nielsen, P., Edfors-Lilja, I., Gustavsson, I., Juneja, R.K. and Andersson, L. 1993. Assignment of 20 microsatellite markers to the porcine linkage map. *Genomics* 16: 431-439.
 28. Harbitz, I., **Chowdhary, B.P.**, Kran, S. and Davies, W. 1993. Characterization of a porcine glucosephosphate isomerase processed pseudogene at chromosome 1q16-q17. *Mammalian Genome* 4: 589-592.
 29. **Chowdhary, B.P.**, Hassanane, M.S. and Gustavsson, I. 1994. Regional localization of the bovine interleukin-2 (IL2) gene to chromosome 17q22-q23 by in situ hybridization. *Cytogenet. Cell Genet.* 65: 166-168.
 30. **Chowdhary, B.P.**, Ellegren, H., Johansson, M., Andersson, L. and Gustavsson, I. 1994. In situ hybridization mapping of the growth hormone receptor (GHR) gene assigns a linkage group (C9, FSA, GHR and S0105) to chromosome 16 in pigs. *Mammalian Genome* 5: 160-162.
 31. Hassanane, M.S., **Chowdhary, B.P.**, Gu, F., Andersson, L. and Gustavsson, I. 1994. Mapping of the interferon gamma (IFNG) gene in river and swamp buffaloes by in situ hybridization. *Hereditas* 120: 29-33.
 32. Gu, F., **Chowdhary, B.P.**, Johansson, M., Andersson, L. and Gustavsson, I. 1994. Localization of the immunoglobulin gamma heavy chain (IGHG), cAMP dependent protein kinase catalytic beta subunit (PRKACB) and transtion protein 2 (TNP2) genes in pigs by in situ hybridization. *Mammalian Genome* 5: 195-198
 33. Ellegren, H., **Chowdhary, B.P.**, Johansson, M., Marklund, L., Fredholm, M., Gustavsson, I and Andersson, L. 1994. A primary linkage map of the porcine genome reveals a low rate of genetic recombination . *Genetics* 137: 1089-1100.
 34. Ellegren, H., **Chowdhary, B.P.**, Johansson, M. and Andersson, L. 1994. Integrating the porcine physical and genetic linkage map using cosmid derived markers. *Animal Genetics* 25: 155-164.
 35. **Chowdhary, B.P.**, Thomsen, P.D., Harbitz, I. and Gustavsson, I. 1994. Precise localization of the genes encoding for glucosephosphate isomerase (GPI), calcium release channel (CRC), hormone sensitive lipase (LIPE) and growth hormone (GH) in pigs, using in situ hybridization. *Cytogenet. Cell Genet.* 67: 211-214.
 36. **Chowdhary, B.P.**, Gustavsson, I., Wikberg, J.E.S. and Chhajlani, V. 1995. Localization of the melanocortin-5 receptor (MC5R) gene to chromosome 18p11.2 by fluorescent in situ hybridization. *Cytogenet. Cell Genet.*; 68:79-81.
 37. Ellegren, H., **Chowdhary, B.P.**, Fredholm, M., Hoyheim, B., Johansson, M., Nielsen, P.B., Thomsen, P.D. and Andersson, L. 1994. A physically anchored map of pig chromosome 1 uncovers sex and position specific recombination rates. *Genomics* 24: 342-350
 38. Wintero, A.K., **Chowdhary, B.P.** and Fredholm, M. 1994. A porcine polymorphic microsatellite (S0076) at chromosome 13q12. *Animal Genetics* : 25:430.

39. Malmgren, H., Nilsson, M., Samiotaki, M., Kwiatkowski, M., **Chowdhary, B.P.** and Landegren, U. 1994. Padlock probes: Circularizing oligonucleotides for localized DNA detection reaction. **Science 265: 2085-2088.**
40. **Chowdhary, B.P.**, Lundgren, S., Johansson, M., Hjälml, G., Åkersträm, G., Gustavsson, I. and Rask, L. 1994. In situ hybridization mapping of a 500 kDa calcium sensing protein gene (LRP2) to human chromosome 2q31-q32.1 and porcine chromosome 15q22-q24. *Cytogenetics and Cell Genetics* 71:120-123.
41. **Chowdhary, B.P.**, de la Sena, C., Harbitz, I., Eriksson, L. and Gustavsson, I. 1994. FISH on metaphase and interphase chromosomes delineates the physical order of the GPI, CRC and LIPE genes in pigs. *Cytogenet. Cell Genet.* 71:175-178.
42. Gobl, A.E., **Chowdhary, B.P.**, Shu, W., Eriksson, L., Larsson, C., Weber, G., ...berg, K. and Skogseid, B. 1994. Assignment of the mouse homolog of a MEN1 candidate gene, phospholipase C-b3, to chromosome region 19B by FISH. *Cytogenet. Cell Genet.* 71:257-259.
43. Gudmundsson, G.H., Magnusson, K.P., **Chowdhary, B.P.**, Johansson, M., Andersson, L. and Boman, H.G. 1995. Structure of the cathelin gene for the porcine peptide antibiotic PR39. Comparative mapping of the loci for PR39 and FALL39, a human peptide antibiotic. *PNAS (USA)* 92:7085-7089.
44. Olsaker, I., **Chowdhary, B.P.** and Guerin, G. 1995. A highly polymorphic bovine dinucleotide repeat D3S40 (IOBT 250) derived from a chimeric cosmid clone. *Animal Genetics (in press).*
45. Hasler-Rapacz, J., Chaudhary, R., **Chowdhary, B. P.**, Trieu, V. N., Jackson, K., Gustavsson, I. and Rapacz, J. 1995. Amino acid sequencing of Porcine Apolipoproteins AI and CIII and mapping of their structural genes to chromosomal 9. *Biochemical and Biophysical Research Communications* 1995.
46. Sjöberg, A., Seaman, W.T., Bellinger, D.A., Griggs, T.R., Nichols, T.C. and **Chowdhary, B.P.** 1996. FISH mapping of porcine vWF gene to chromosome 5q21 extends synteny homology with human chromosome 12. *Hereditas* 124: 199-202.
47. Fronicke, L., **Chowdhary, B. P.**, Gustavsson, I. and Scherthan, H. 1996. A comparative map of the porcine and human genomes demonstrates ZOO-FISH and gene mapping-based chromosomal homologies. *Mammalian Genome* 7: 285-290.
48. **Chowdhary, B. P.**, Fronicke, L., Gustavsson, I. and Scherthan, H. 1995. Comparative analysis of the cattle and human genomes : detection of ZOO-FISH and gene mapping-based chromosomal homologies. *Mammalian Genome* 7:297-302.
49. Prakash, B., Kuosku, V., Olsaker, I., Gustavsson, I. and **Chowdhary, B. P.** 1996. Comparative FISH mapping of bovine cosmids to reindeer chromosomes demonstrates conservation of the X chromosome. *Chromosome Research* 4(3):214-217
50. Raudsepp, T., Fronicke, L., Scherthan, H., Gustavsson, I. and **Chowdhary, B. P.** 1996. Zoo-FISH delineates conserved chromosomal segments in horse and man. *Chromosome Research* 4(3):218-225.
51. Martin, I., **Chowdhary, B. P.**, Prakash, B., Zaragoza, P. and Olsaker, I. 1996. A polymorphic bovine dinucleotide repeat D17S29 (IOZARA 975) at chromosome 17q26. *Animal Genetics* 27(1):287
52. Martin, I., **Chowdhary, B. P.**, Prakash, B., Zaragoza, P. and Olsaker, I. 1996. A Polymorphic bovine dinucleotide repeat DXS23 (IOZARA 1489) at chromosome Xq42-q43. *Animal Genetics* 27(4):287
53. de la Sena, C. A., Chowdhary, B. P. and Gustavsson, I. 1994. Localization of telomeric (TTAGGG)_n sequences in chromosomes of some domestic animals by fluorescence in situ hybridization. *Hereditas* 123:269-274.

54. Johansson Moller, M., Chaudhary, R., Hellmen, E., Høyheim, B., **Chowdhary, B.** and Andersson, L. 1996. Pigs with dominant white coat colour phenotype carry a duplication of the *KIT* gene encoding the mast/stem cell growth factor receptor. *Mammalian Genome* 7:822-830.
55. Olsaker, I., **Chowdhary, B. P.** and Guerin, G. 1996. A highly polymorphic bovine dinucleotide repeat D3S40 (IOBT 250) derived from a chimeric cosmid clone. *Animal Genetics* 27(1):59.
56. Frönicke, L., **Chowdhary, B.P.** and Scherthan, H. 1997. Segmental homology between cattle (*Bos taurus*), Indian- (*Muntiacus muntjak*) and Chinese-muntjac (*M. reevesi*) karyotypes. *Cytogenet. Cell Genet.* 77: 223-227.
57. Primmer, C.R., Raudsepp, T., **Chowdhary, B.P.**, Møller, P. and Ellegren, H. 1997. Low frequency of microsatellites in the avian genome. *Genome Research* 7: 471-482.
58. Van Poucke, M., Sjöberg, A., Mattheeuws, M., Van Zeveren, A., Bouquet, Y., **Chowdhary, B.P.**, Peelman, L.J. 1997. Mapping of the ATP2B2 and PCCB genes on porcine chromosome 13. *Mamm Genome* 8:852-853.
59. Raudsepp, T., Otte, K., Rozell, B. and **Chowdhary, B.P.** 1997. FISH mapping of the IGF2 gene in horse and donkey - detection of homoeology with HSA11. *Mammalian Genome* 8: 569-572.
60. Sjöberg, A., Peelman, L. and **Chowdhary, B. P.** 1997. Quantitative analysis of fiber-FISH results based on ordering of four lambda clones in the porcine MHCIII region. *Chromosome Research* 5: 247-253.
61. Olsaker, I., Williams J.L., **Chowdhary, B.P.**, Karlsson, L., Urquhart, B.G., Prakash, B. 1997. Physical and genetic mapping of a bovine dinucleotide repeat marker D23S38 (IOBT1479) to chromosome 23q24-q25. *Anim Genet* 28: 60-61
62. Prakash, B., Olsaker, I., Gustavsson, I. and **Chowdhary, B.P.** 1997. FISH mapping of three bovine cosmids to cattle, sheep, goat and buffalo X chromosome. *Hereditas* 126: 115-119.
63. *ISCNH (1997). International System for Cytogenetic Nomenclature of the Domestic Horse.* Committee: Bowling, A.T., Breen, M., **Chowdhary, B.P.** (co-ordinator), Hirota, K., Lear, T., Millon, L.V., Ponce de Leon, F.A., Raudsepp, T. and Stranzinger, G. *Report of the Third International Committee for the Standardization of the Domestic Horse Karyotype, Davis, California.* (1997). *Chromosome Research* 5: 1-11.
64. Svensson, A-K., Raudsepp, T., Larsson, C., Di Cristofano, A., **Chowdhary, B.P.**, La Mantia, G., Rask, L. and Andersson, G. 1997. Chromosomal localization and expression of the endogenous retrovirus ERV9. (*manuscript in thesis of A-K. Svensson, SLU, Uppsala, Sweden*).
65. Chaudhary, R., Winterø, A-K., Fredholm, M. and **Chowdhary, B.P.** 1997. FISH mapping of eight cDNA clones in pigs. *Chromosome Research* 5: 545-549
66. Chaudhary, R., Raudsepp, T., Guan, X-Y, Zhang, H. and **Chowdhary, B.P.** 1998. Refined cross species chromosome conservation detected using microdissected arm specific paints for HSA2, 5, 6, 16 and 19 on pig and horse chromosomes. *Mammalian Genome* 9: 44-49.
67. Törnsten, A., Wraith, A., Larhammar, D. and **Chowdhary, B.P.** 1998. FISH mapping of the porcine NPY5 gene to chromosome 8p11. *Mamm. Genome* 9: 262-263.
68. Prakash, B., de La, Sena, C., Olsaker, I., Gustavsson, I. and **Chowdhary, B.P.** 1999. Comparative FISH mapping of 28 bovine cosmids to homologous cattle, goat, sheep and river buffalo chromosomes. (*in press; Cytogenetic Cell Genetics*).
69. Liu, W-S, Harbitz, I., Gustavsson, I., **Chowdhary, B.P.** 1998. Mapping of porcine erythropoietin gene to chromosome 3p15-p16 and ordering of four related subclones by fiber-FISH and DNA-combing. *Hereditas* 128: 77-81.

70. Soldatov, N.M., Raudsepp, T. and **Chowdhary, B.P.** 1998. Repetitive exon 45/46-related sequences of human Ca²⁺ channel α_{1C} subunit gene point to a new homologous gene. *Human Heredity* 48: 241-244.
71. **Chowdhary, B.P.**, Raudsepp, T., Fronicke, L. and Scherthan 1998. Emerging patterns of genome organization in some mammalian species as revealed by Zoo-FISH. *Genome Research* 8: 577-589.
72. Hassanane M.S., Chaudhary, R. and **Chowdhary B.P.** 1998. Microdissection of bovine X chromosome segment delineates homoeologous chromosomal segments in sheep, goat and buffalo. *Chromosome Research* 6: 213-217.
73. Fridolfsson, A-K., Cheng, H., Copeland, Jenkins, N.A., Liu, H-C., Raudsepp, T., Woodage, T., **Chowdhary, B.P.**, Halverson, J., Ellegren, H. 1998. Evolution of the avian sex chromosome from the ancestral pair of autosomes. *Proc. Nat. Acad. Sci. USA* 95: 8147-8152.
74. Liu, W.S., Soldatov, N.M., Gustavsson, I and **Chowdhary, B.P.** 1998. Fiber-FISH analysis of the 3'-terminal region of the human L-type Ca²⁺ channel α_{1C} subunit gene. *Hereditas* 129: 169-175.
75. Chaudhary, R., Kijas, J., Raudsepp, T., Guan, X-Y, Zhang, H., and **Chowdhary, B.P.** 1998. Microdissection of whole chromosome, arm and bands in pigs for construction of paints and libraries. *Hereditas* 128: 265-271.
76. Kijas, J.M., Tornsten, A., **Chowdhary, B. P.**, Andersson, L. 1998. Porcine Agouti gene map position SSC 17q21. *Chromosome Res.* 6:243.

In Denmark (The Royal Veterinary & Agricultural University, Copenhagen, 1998 – 2000)

77. Tornsten, A., Jeon, J-T., Andersson, L. and **Chowdhary, B.P.** 1998. Physical ordering of six YACs from the RN region in pigs. *Animal Genetics* 29: 319-321.
78. Gåfvæls, M., Olin, M., **Chowdhary, B.P.**, Raudsepp, T., Björkhem, I. and Eggertsen, G. 1999. Unusual structure of the gene coding for sterol 12 α -hydroxylase (CYP8B1) in mouse: Evidence for a lack of introns. *Genomics* 56: 184-196.
79. Raudsepp, T., Kijas, J., Godard, S., Guerin, G., Andersson L. and **Chowdhary, B.P.** 1999. Comparison of ECA3 with donkey and human chromosomes using cross species painting and heterologous FISH mapping. *Mammalian Genome* 10: 277-282.
80. Raudsepp T. and **Chowdhary, B.P.** 1999. Construction of chromosome-specific paints for meta- and sub-metacentric autosomes and the sex chromosomes in the horse and their use to detect homologous chromosomal segments in the donkey. *Chrom. Res.* 7: 103-114.
81. Van Poucke, M., Törnsten, A., Mattheeuws, M., Van Zeveren, A., Peelman, L.J., and **Chowdhary B.P.** 1999. Comparative mapping between human chromosome 3 and porcine chromosome 13. *Cytogenetic Cell Genetics* 85: 279-284.
82. **Chowdhary, B.P.**, and Raudsepp T. 1999. HSA4 and GGA4: remarkable conservation in spite of 300 Myrs divergence. *Genomics* 60: 102-105.
83. Wraith, A., Törnsten, A., Chardon, P., Harbitz, I., **Chowdhary, B.P.**, Andersson, L., L.-G. Lundin and Larhammar, D. 2000. Evolution of the neuropeptide Y receptor family: gene and chromosome duplications deduced from the cloning and mapping of the five-receptor subtypes in pig. *Genome Research* 10: 302-310 (**RECEIVED COVER PAGE OF THE JOURNAL**).

At TEXAS A&M UNIVERSITY, USA (October 2000 onwards) Total = 76

Including publication number 153-160 (Book-chapters)

84. Raudsepp, T., Christensen, K., **Chowdhary, B.P.** (2000) Cytogenetics of donkey chromosomes: nomenclature proposal based on GTG banded chromosomes and depiction of NORs and telomeric sites. *Chromosome Res.* 8, 659-670.

2001

85. Mariat, D., Oustry-Vaiman, A., Cribiu, E.P., Raudsepp, T., **Chowdhary, B.P.**, Guérin, G. (2001) Isolation, characterization and FISH assignments of horse BAC clones containing type I and II markers. *Cytogenetics Cell Genet.* 92, 144-148.
86. Raudsepp, T. and **Chowdhary, B.P.** (2001) Correspondence of HSA9, 12, 15, 16, 19 and 20 with donkey chromosomes refines homology between horse and donkey karyotypes. *Chromosome Res.* 9: 623-629.

2002

87. **Chowdhary, B.P.**, Raudsepp, T., Honeycutt, D., Owens, E.K., Piumi, F., Guerin, G., Matise, T.C., Kata, S.R., Womack, J.E., Skow, L.C. (2002) Construction of a 5000rad whole genome radiation hybrid panel in the horse and generation of a comprehensive map for ECA11. *Mamm. Genome*, 13: 89-94.
88. Raudsepp, T., Mariat, D., Guerin, G., **Chowdhary, B.P.** (2002) Comparative FISH mapping of 32 loci reveals new homologous regions between donkey and horse karyotypes. *Cytogenetics Cell Genet.* 94: 180-185.
89. Raudsepp, T., Kata, S.R., Piumi, F., Swineburne, J., Womack, J.E., Skow, L.C., **Chowdhary, B.P.** (2002). Striking conservation of gene order between horse and human X chromosomes as evidenced through radiation hybrid mapping. *Genomics* 79: 451-457 **(RECEIVED COVER PAGE OF THE JOURNAL!)**.
90. Raudsepp, T., Lear, T. and **Chowdhary B.P.** (2002) Comparative mapping in equids: the asine X chromosome is rearranged compared to horse and Hartmann's mountain zebra. *Cytogenetics Cell Genet.* 96: 206-209.
91. Santani, A., Raudsepp, T. And **Chowdhary, B.P.** (2002) Interstitial telomeric sites and NORs in Hartmann's (*Equus zebra hartmannae*) chromosomes. *Chromosome Res.* 10:527-534.
92. Giese, A., Jude, R., Kuiper, H., Raudsepp, T., Piumi, P., Schambony, A., Guérin, G., **Chowdhary, B. P.**, Distl, O., Töpfer-Petersen, E. and Leeb, T. (2002). Molecular characterization of the equine TPX1 and AEG2 genes encoding members of the cysteine-rich secretory protein (CRISP) family. *Gene* 299: 101-109.
93. T. Raudsepp, M. L. Houck, P.C.M. O'Brien, M.A. Ferguson-Smith, O. A. Ryder and **B. P. Chowdhary** (2002). Cytogenetic analysis of California condor (*Gymnogyps californianus*) chromosomes: comparison with chicken (*Gallus gallus*) macrochromosomes. *Cytogenet Genome Res.* 2002;98(1):54-60.

2003

94. **Chowdhary B.P.**, Raudsepp T., Kata S.R., Goh G, Millon L.V., Piumi F., Swineburn J., Binns M., Lear T., Mickelson J., Murray J., Womack J.E., Skow L.C. (2003). The first generation RH and comparative map of the equine genome detects conserved segments between horse, human and mouse. *Genome Research* 13: 742-751 **(RECEIVED COVER PAGE OF THE JOURNAL!)**.
95. Karsenty E, Barillot E, Tosser-Klopp G, Lahbib-Mansais Y, Milan D, Hatey F, Cirera S, Sawera M, Jorgensen CB, **Chowdhary B.P.**, Fredholm M, Wimmers K, Ponsuksili S, Davoli R, Fontanesi L, Braglia S, Zambonelli P, Bigi D, Neuenschwander S, Gellin J. (2003). The GENETPIG database: a tool for comparative mapping in pig (*Sus scrofa*). *Nucleic Acids Res.* Jan 1;31(1):138-41.

96. Schiöth, H.B., Raudsepp, T., Ringholm, A., Fredriksson, R., Takeuchi, S., Larhammar, D. and **Chowdhary, B. P.** (2003). Remarkable synteny conservation of melanocortin receptors (MC1-5R) in chicken, human and other vertebrates. *Genomics* 81: 504-509.
97. Cirera S. Jørgensen, C.B., Sawera, M., Raudsepp, T., **Chowdhary B.P.** and Merete Fredholm (2003). Comparative mapping in the pig: localization of 218 expressed sequence tags. *Mammalian Genome* 14(6) 405-426.
98. Mir. B., **Chowdhary B.P.**, Piedrahita J. (2003). UP1 extends life of primary porcine fibroblasts in culture. *Cloning and Stem Cells* 5(2): 143-148.
99. Bryan, T.M., C.A. Abbey, T. Raudsepp, **B.P. Chowdhary**, C.A. Gill, T.L. Blanchard, N.H. Ing and T.H. Welsh, Jr. (2003). Characterization of equine bacterial artificial chromosomes (BACs) relevant to endocrine and immunosystem regulation. *J. Anim. Sci.* 81(Suppl.1):102-103.
100. Ward T.L., Valberg S.J., Lear T.R., Guérin G., Milenkovic D., Swinburne J.E., Binns M., Raudsepp T, Skow L., **Chowdhary B.P.**, and Mickelson J.R. (2003). Genetic Mapping of GBE1 and its Association with Glycogen Storage Disease IV in American Quarter Horses. *Cytogenetics & Genome Research* 102:201-206.
101. Gustafson A.L., Tallmadge R.L., Ramlachan N., Miller D., Bird H., Antczak D.F., Raudsepp T., **Chowdhary B.P.**, and Skow L.C. (2003). An Ordered BAC Contig Map of the Equine Major Histocompatibility Complex. *Cytogenetics & Genome Research* 102:189-195.
102. Jørgensen C.B., Cirera, S. Anderson I., Archibald A.L., Raudsepp T., **Chowdhary B.P.**, Edfors-Lilja I., Andersson L. & Fredholm F. (2003). Linkage and comparative mapping of the gene responsible for susceptibility towards E. coli F4ab/ac diarrhoea in pigs *Cytogenetics & Genome Research* 102:157-162.
103. **Chowdhary B.P.** & Bailey E. (2003). Equine Genomics: Galloping to new frontiers. *Cytogenetics & Genome Research* 102:184-188. **Review article.**

2004

104. Takahashi T., Yawata M., Raudsepp T., Lear T., **Chowdhary B.P.**, Antczak D.F. and Kasahara M. (2004) Natural killer cell receptors in the horse: evidence for the existence of multipletranscribed *LY49* genes. *European Journal of Immunology* 34:773-784.
105. Lee, E-J, Raudsepp T., Kata S.R., Adelson D., Womack J.E., Skow L.C., **Chowdhary B.P.** (2004) A 1.4 Mb interval RH map of horse chromosome 17 provides detailed comparison with human and mouse homologues. *Genomics* 83:203-215.
106. Wagner ML, Goh G, Wu JT, Raudsepp T, Morrison LY, Alexander LJ, Skow LC, **Chowdhary BP**, Mickelson JR. (2004) Radiation hybrid mapping of 63 previously unreported equine microsatellite loci. *Anim Genet.* 35:159-162.
107. Wagner ML, Goh G, Wu JT, Raudsepp T, Morrison LY, Alexander LJ, Skow LS, **Chowdhary BP**, Mickelson JR. (2004) Radiation hybrid mapping of 75 previously unreported equine microsatellite loci. *Anim Genet.* 35:68-71.
108. Raudsepp T., Lee E.J., Kata S., Brinkmeyer C., Mickelson J.R., Womack J.E., Skow L.C., **Chowdhary B.P.** (2004). Exceptional conservation of horse human gene order on X chromosome revealed by high resolution radiation hybrid mapping. *PNAS (USA)* 101 (8): 2386-2391.
109. Raudsepp T., Santani A., Wallner A., Kata S.R., Ren C., Zhang H., Womack J.E., Skow L.C. and **Chowdhary B.P.** (2004). A detailed map of the horse Y chromosome. *PNAS (USA)* 101: 9321-9326.
110. Halbert N.D., Raudsepp T., **Chowdhary B.P.** and Derr J.N. (2004). Conservation genetic analysis of the Texas State bison herd. *J. of Mammalogy* 85: 924-931.
111. Mickelson JR, Wagner ML, Goh G, Wu JT, Morrison LY, Alexander LJ, Raudsepp T, Skow LC, **Chowdhary BP**, Swinburne JE, Binns MM. (2004). Thirty-five new equine

microsatellite loci assigned to genetic linkage and radiation hybrid maps. *Anim Genet.* 35: 481-484.

112. Wagner ML, Goh G, Wu JT, Morrison LY, Alexander LJ, Raudsepp T, Skow LC, **Chowdhary BP**, Mickelson JR. (2004). Sixty-seven new equine microsatellite loci assigned to the equine radiation hybrid map. *Anim Genet.* 35(6):484-6.
113. Brenig B, Beck J, Hall AJ, Broad TE, **Chowdhary BP**, Piumi F. (2004). Assignment of the equine solute carrier 26A2 gene (SLC26A2) to equine chromosome 14q15-->q21 (ECA14q15-->q21) by in situ hybridization and radiation hybrid panel mapping. *Cytogenet Genome Res.* 107:139.

2005

114. Gustafson-Seabury A, Raudsepp T, Goh G, Kata S, Wagner ML, Tozaki T, Mickelson JR, Womack JE, Skow LC and Chowdhary B.P. (2005). High resolution RH map of horse chromosome 22 reveals a putative ancestral vertebrate chromosome. *Genomics* 82: 188-200. **(RECEIVED COVER PAGE OF THE JOURNAL!).**
115. Momozawa Y, Takeuchi Y, Tozaki T, Kikusui T, Hasegawa T, Raudsepp T, Chowdhary BP, Kusunose R, Mori Y. 2005. Sequence, detection of polymorphisms and radiation hybrid mapping of the equine catechol-o-methyltransferase gene. *Anim. Genet.* 36, 190.
116. Lagerstrom M.C., Fredriksson R., Bjarnadóttir T.K., Fridmanis D., Holmquist T., Andersson J., Yan Y.-L., Raudsepp T., Zoorobn R, Kukkonen J.P., Lundin L.-G., Klovins J., **Chowdhary B.P.**, Postlethwait J.H., Helgi B. Schioth H.B. 2005. Origin of the prolactin-releasing hormone (PRLH) receptors: Evidence of coevolution between PRLH and a redundant neuropeptide Y receptor during vertebrate evolution. *Genomics*, 85, 688-703.
117. Brinkmeyer-Langford,C, Raudsepp,T, Lee,E-J, Goh,G, Schäffer,AA, Agarwala,R, Wagner,ML, Tozaki.T, Skow,LC, Womack,JE, Mickelson,JR, and **Chowdhary,BP**. 2005. A high-resolution physical map of equine homologues of HSA19 shows divergent evolution compared to other mammals. *Mamm. Genome* 16: 631-649 **(RECEIVED COVER PAGE OF THE JOURNAL!).**
118. William J. Murphy, Denis M. Larkin, Annelie Everts-van der Wind, Guillaume Bourque, Glenn Tesler, Loretta Auvil, Jonathan E. Beever, **Bhanu P. Chowdhary**, Francis Galibert, Lisa Gatzke, Christophe Hitte, Stacey N. Meyers, Elaine A. Ostrander, Greg Pape, Heidi G. Parker, Terje Raudsepp, Margarita B. Rogatcheva, Lawrence B. Schook, Loren C. Skow, Michael Welge, James E. Womack, Stephen J. O'Brien, Pavel A. Pevzner, Harris A. Lewin. 2005. Dynamics of Mammalian Chromosome Evolution Inferred from Multispecies Comparative Maps. **Science** 309: 613-617.
119. Beck J, **Chowdhary BP**, Brenig B: Assignment of the equine colony stimulating factor 1 receptor gene (CSF1R) to equine chromosome 14q15-->q16 (ECA14q15-->q16) by in situ hybridization and radiation hybrid panel mapping. *Cytogenet Genome Res* 2005;109:533.
120. Boneker C, Kuiper H, Wohlke A, Drogemuller C, **Chowdhary BP**, Distl O. (2005). Assignment of the COL16A1 gene to equine chromosome 2p15.1-p15.3 by FISH and confirmation by RH mapping. *Anim Genet* 36: 262-263.
121. Boneker C, Muller D, Kuiper H, Drogemuller C, **Chowdhary BP**, Distl O. (2005). Assignment of the COL8A2 gene to equine chromosome 2p15-p16 by FISH and confirmation by RH mapping. *Anim Genet* 36: 444-445.
122. Leeb T, Bruhn O, Philipp U, Kuiper H, Regenhard P, Paul S, Distl O, **Chowdhary BP**, Kalm E, Looft C (2005). Assignment of the equine S100A7 gene (psoriasin 1) to chromosome 5p12-->p13 by fluorescence in situ hybridization and radiation hybrid mapping. *Cytogenet Genome Res* 109: 533.

123. Wittwer C, **Chowdhary BP**, Distl O. (2005). Radiation hybrid mapping of equine CDK2, DGKA, DNAJC14, MMP19, CTSL and GAS1. *Anim Genet.* 36: 536-7.
124. Muller D, Kuiper H, Boneker C, Momke S, Drogemuller C, **Chowdhary BP**, Distl O. (2005). Assignment of BGLAP, BMP2, CHST4, SLC1A3, SLC4A1, SLC9A5 and SLC20A1 to equine chromosomes by FISH and confirmation by RH mapping. *Anim Genet.* 36: 457-461.
125. Muller D, Kuiper H, Boneker C, Momke S, Drogemuller C, **Chowdhary BP**, Distl O. (2005). Physical mapping of the PTHR1 gene to equine chromosome 16q21.2. *Anim Genet.* 36: 282-4.
126. Muller D, Kuiper H, Momke S, Boneker C, Drogemuller C, **Chowdhary BP**, Distl O. (2005). Assignment of the COMP gene to equine chromosome 21q12-q14 by FISH and confirmation by RH mapping. *Anim Genet.* 36: 277-279.

2006

127. Swinburne JE, Boursnell M, Hill G, Pettitt L, Allen T, **Chowdhary BP**, Hasegawa T, Kurosawa M, Leeb T, Mashima S, Mickelson JR, Raudsepp T, Tozaki T, Binns M: Single linkage group per chromosome genetic linkage map for the horse, based on two three-generation, full-sibling, crossbred horse reference families. *Genomics* 2006: 87:1-29.
128. Wagner ML, Raudsepp T, Goh G, Agarwala R, Schäffer AA, Dranchak PK, Brinkmeyer-Langford C, Skow LC, **Chowdhary BP**, and Mickelson JR. (2006) A 1.3-Mb interval map of equine homologs of HSA2. *Cytogenet. Genome Res.* 112: 227-234.
129. Murphy,WJ, Pearks Wilkerson,AJ, Raudsepp,T, Agarwala,R, Schäffer,AA, Stanyon,R, **Chowdhary,BP**. 2006. Novel Gene Acquisition on Carnivore Y Chromosomes. *PLoS Genetics* 2, 1-11.
130. Carbone L, Nergadze SG, Magnani E, Misceo D, Francesca Cardone M, Roberto R, Bertoni L, Attolini C, Francesca Piras M, de Jong P, Raudsepp T, **Chowdhary BP**, Guerin G, Archidiacono N, Rocchi M, Giulotto E. (2006). Evolutionary movement of centromeres in horse, donkey, and zebra. *Genomics*, 87, 777-782.
131. Perrocheau M., Boutreux V., Chadi S., Mata, X., Decaunes, P., Raudsepp T., Durkin K., Incarnato D., Iannuzzi L., Lear T.L., Hirota K., Hasegawa T., Zhu B., de Jong P., Cribiu E.P., **Chowdhary B.P.**, Guérin G. (2006) Construction of a medium density equine gene map. *Animal Genet.*, 37, 145-155.
132. Dranchak, P.K., Ekenstedt, K.J., Valberg, S.J., **Chowdhary, B.P.**, Raudsepp, T., Mickelson, J.R. 2006. Chromosomal assignments for the equine AMPK family genes. *Animal Genet.*, 37, 293-307.
133. Momozawa,Y, Takeuchi,Y, Tozaki,T, Kikusui,T, Hasegawa,T, Raudsepp,T, **Chowdhary,BP**, Kusunose,R and Mori,Y. 2006. Polymorphism Identification, RH Mapping, and Association Analysis with the Anxiety Trait of the Equine *serotonin transporter (SLC6A4)* Gene. *Journal of Veterinary Medical Science* 68, 619-621.
134. Böneker,C., Kuiper,H., Drögemüller,C., **Chowdhary,B.P.**, Distl,O. 2006. Molecular characterization of the equine collagen, type IX, alpha 2 (*COL9A2*) gene on horse chromosome 2p16→p15. *Cytogenet. Genome Res.* 115:107–114.
135. Dierks,C., Momke,S., Drogemuller,C., Leeb,T., **Chowdhary,BP** and Distl,O. 2006. A high-resolution comparative radiation hybrid map of equine chromosome 4q12–q22. *Animal Genetics*, 37, 513–517.
136. Klukowska-Rötzler, J., Jost, U., Schelling, C., Dolf, G., **Chowdhary, B.P.**, Leeb, T. & Gerber, V. 2006. Characterization and RH mapping of six gene-associated equine microsatellite markers. *Animal Genetics* 37, 305-306.
137. Looft C., Paul S., Philipp U., Regenhard P., Kuiper H., Distl O., **Chowdhary B. P.**, and Leeb T. 2006. Sequence analysis of a 212 kb defensin gene cluster on ECA 27q17. *Gene* 376: 192-198.

138. Muller D, Kuiper H, Momke S, Boneker C, Drogemuller C, Swinburne JE, Binns M, **Chowdhary BP**, Distl O. 2006. Physical mapping of the ATP2A2 gene to equine chromosome 8p14-->p12 by FISH and confirmation by linkage and RH mapping. *Cytogenet. Genome Res.* 114: 94G.
139. Leeb T., Vogl C., Zhu B., de Jong P. J., Binns M. M., **Chowdhary B. P.**, Scharfe M., Jarek M., Nordsiek G., Schrader F., and Blocker H. 2006. A human-horse comparative map based on equine BAC end sequences. *Genomics* 87: 772-776.

2007

140. Goh,G, Raudsepp,T, Durkin,K, Wagner,ML, Schäffer,AA, Agarwala,R, Tozaki,T, Mickelson,JR and **Chowdhary,BP**. 2007. High-resolution gene maps of horse chromosomes 14 and 21: additional insights into evolution and rearrangements of HSA5 homologues in mammals. *Genomics* 89:89-112. **Received JOURNAL COVER**
141. Momozawa, Y., Takeuchi, Y.,Tozaki, T., Kikusui, T.,Hasegawa, T., Raudsepp, T., **Chowdhary, B.P.**, Kusunose, R. and Mori, Y. 2007. SNP detection and radiation hybrid mapping horses of nine candidate genes for temperament. *Animal Genetics*, 38, 81–83.
142. Hansen GR, Abbey CA, Gaile DP, Raudsepp T, **Chowdhary BP**, Womack JE, Gill CA. 2007. Assignment of six genes to bovine chromosomes 5 and 16 by fluorescence in situ hybridization, radiation hybrid mapping and genetic linkage analysis. *Cytogenet. Genome Res.* 116: 194-197.
143. Coleman SJ, Gong G, Gaile DP, **Chowdhary BP**, Bailey E, Liu L, MacLeod JN (2007) Evaluation of Compass as a comparative mapping tool for ESTs using horse radiation hybrid maps. *Anim Genet* **38**:294-302
144. Herszberg B, Mata X, Giulotto E, Decaunes P, Piras FM, **Chowdhary BP**, Chaffaux S, Guerin G (2007) Characterization of the equine glycogen debranching enzyme gene (AGL): Genomic and cDNA structure, localization, polymorphism and expression. *Gene* **404**:1-9
145. Prause A, Guionaud CT, Klukowska-Rotzler J, Giulotto E, Magnani E, **Chowdhary BP**, Philipp U, Leeb T, Mevissen M (2007) Chromosomal assignment of five equine HTR genes by FISH and RH mapping. *Anim Genet* **38**:83-4.
146. Stübs D, Kuiper H, Mömke S, **Chowdhary BP**, Distl O (2007) Assignment of the TYK2 gene to equine chromosome 7q12-q13. *Archiv für Tierzucht* **50**:322-323.

2008

147. **Chowdhary BP**, Raudsepp T. 2008. The Horse Genome Derby: racing from map to whole genome sequence. *Chromosome Res.* **16**, 109-127.
148. Raudsepp, T. and **Chowdhary, B. P.** 2008. The horse pseudoautosomal region (PAR): characterization and comparison with the human, chimp and mouse PARs. *Cytogenet. Genome Res.* **121**:102-109.
149. Brinkmeyer-Langford C, Raudsepp T, Gustafson-Seabury A and **Chowdhary BP**. 2008. A BAC contig map over the proximal ~3.3 Mb region of horse chromosome 21. *Cytogenetics & Genome Research* **120**: 164-172.
150. **Chowdhary BP**, Paria N and Raudsepp T. Potential applications of equine genomics in dissecting diseases and fertility. 2008. *Animal Reproduction Science* **107**:208-18.
151. A 4103 marker integrated physical and comparative map of the horse genome. Raudsepp T, Gustafson-Seabury A, Durkin K, Wagner ML, Goh G, Seabury CM, Brinkmeyer-Langford C, Lee E-J, Agarwala R, Rice ES, Schäffer AA, Skow LC, Tozaki T, Yasue H, Penedo MCT, Lyons L, Khazanehdari KA, Binns MM, MacLeod JN, Distl O, Guérin G, Leeb T, Mickelson JR, **Chowdhary BP**. 2008. *Cytogenetics & genome research (in press)*.

152. Gene discovery and comparative analysis of X-degenerate genes from the domestic cat Y chromosome. Pearks-Wilkerson AJ, Raudsepp T, Graves T, Albracht D, Warren W, **Chowdhary BP**, Skow LC, Murphy WJ. (2008). *Genomics (in press)*.

Manuscripts in preparation not listed here.

Book chapters

153. **Chowdhary, B.P.** (1998). *Cytogenetics and Physical Gene Mapping*. In "The Genetics of the Pig", CAB International, Wallingford, Oxon OX10 8DE, UK. Eds: M. Rothschild and A. Ruvinsky. pp-199-264.
154. **Chowdhary B.P.** and Raudsepp T. (2000). *Cytogenetics and physical chromosome maps*. In: "The Genetics of the Horse" CAB International, Wallingford, Oxon OX10 8DE, UK. Eds: Ann T. Bowling and Anatoly Ruvinsky.
155. **Chowdhary, B.P.** and Raudsepp, T. (2001) Chromosome painting in farm, pet and wild animal species. *Methods in Cell Science: CHROMOSOME PAINTING* (special issue). Kluwer Academic Publishers, 23: 37-55.
156. **Chowdhary B.P. (2003). Animal Genomics. Editor:** Single topic Volume. Cytogenetics & Genome Research. S. Karger Medical & Scientific Publishers, Basel, Switzerland. Volume 102 (1-4):1-366.
157. **Chowdhary B.P.**, and Raudsepp T. (2004). Mapping genomes at the chromosomal level. In: "Mammalian Genomics" CAB International, Wallingford, Oxon OX10 8DE, UK. Eds: Anatoly Ruvinsky and Jenny Graves – pp 23-66.
158. Serov O., **Chowdhary B.P.**, Womack J., Graves J.A .M. (2004) Comparative gene mapping and ancestral mammalian karyotype. CAB International, Wallingford, Oxon OX10 8DE, UK. Eds: Anatoly Ruvinsky and Jenny Graves. pp 349-392.
159. **Chowdhary, B.P.** and Raudsepp, T. 2006. The horse genome. In: Vertebrate Genomes. Genome Dynamics (Ed. J.-N. Volf), Karger, Basel, Switzerland, pp. 97-110.
160. Raudsepp, T and **Chowdhary, BP** 2008. FISH for mapping single copy genes. In: Methods in Molecular Biology (Ed. W. Murphy), Humana Press, New Jersey, USA (in press).
161. Durkin K, Raudsepp T and **Chowdhary BP**. 2008. Cytogenetic Evaluation of the Stallion. *Book Chapter*. Equine Reproduction. Eds. McKinnon AO, Squires EL, Vaala WE and Varner DD (*in press*).

Thesis

162. **Chowdhary, B.P.** 1980. Studies of factors affecting measures of lifetime productivity in Rathi and cross-bred cows. *M.V.Sc. thesis submitted to the Udaipur Agricultural University, Bikaner, India*.
163. **Chowdhary, B.P.** 1991. Chromosome mapping of some genes in farm animals by in situ hybridization. *Ph.D. Thesis submitted to Swedish University of Agricultural Sciences, Uppsala, Sweden*.