

## CURRICULUM VITAE OF PAOLO AJMONE MARSAN

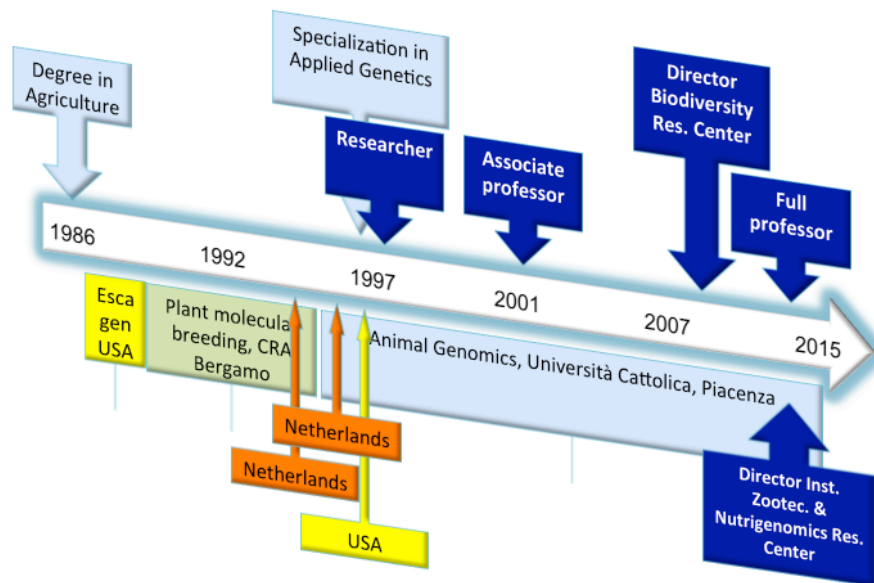
### **CAREER**

I have a degree in Agriculture obtained in 1987 and a post-lauream degree of Scuola di Specializzazione (Ph. D. equivalent) in Applied Genetics, obtained in 1997, from the Università degli Studi di Milano. I am currently Full Professor, Director of the Institute of Zootechnics, Director of the “Nutrigenomics and Proteomics Research Center – PRONUTRIGEN”, promoter and scientific coordinator of the “Biodiversity and Ancient DNA Research Center – BioDNA” of the Università Cattolica del S. Cuore, in Piacenza, Italy where I lead research groups in Animal Genetics, Biodiversity, Nutrigenomics, Physiology and Production. My research experience includes animal genomics, molecular diversity and evolutionary history (last 18 years), and plant molecular diversity and assisted breeding (previous 9 years). I have spent periods in U.S. and The Netherlands as visiting scientist. In detail:

- 01/11/2012 – today. Director of the Institute of Zootechnics at the Università Cattolica del S. Cuore, via Emilia Parmense, 84, 29122 Piacenza, Italy.
- 01/04/2013 – today. Director of the Nutrigenomics and Proteomics Research Center – PRONUTRIGEN – of the Università Cattolica del S. Cuore.
- 01/11/2011 – today. Full Professor at the Università Cattolica del S. Cuore, via Emilia Parmense, 84, 29122 Piacenza, Italy. I presently teach courses in animal genomics and breeding and agriculture sustainability and lead groups researching in animal genomics, molecular breeding, biodiversity and nutrigenomics.
- 2009 – 31/10/2012. Founder and Director of the “Biodiversity and Ancient DNA Research Centre – BioDNA” of the Università Cattolica del S. Cuore. The Centre investigates present and past diversity of plants, animals and microorganisms exploiting novel genomic technologies. A fully dedicated ancient DNA laboratory permits DNA extraction and analysis from ancient samples. When I was appointed Director of PRONUTRIGEN I resigned from the direction of BioDNA and remained involved in the Center as scientific coordinator.
- 01/03/2001 – 31/10/2011. Associate Professor at Università Cattolica del S. Cuore, via Emilia Parmense, 84, 29122 Piacenza, Italy. I taught animal breeding and lead a group researching in animal genomics and molecular breeding.
- 01/04/1997 – 28/02/2001. Researcher at Università Cattolica del S. Cuore, via Emilia Parmense, 84, 29122 Piacenza, Italy. I researched in animal breeding and biotechnology. My research focussed on the investigation of the animal genome by molecular methods to i) identify useful genes and QTLs; ii) characterise livestock biodiversity; iii) develop molecular traceability tools.
- 1996 August-September. “Visiting scientist” at Applied Biosystems Inc. in Foster City, California, USA. In this period I set up methods for AFLP marker analysis on ABI PRISM automatic sequencers.
- 01/10/1995 - 31/03/1997. Post-doc at Università Cattolica del S. Cuore, via Emilia Parmense, 84, 29122 Piacenza, Italy. I researched in animal breeding and biotechnology.
- 1988-1995 Contractor at the Experimental Station for Cereal Crops, in Bergamo, Italy, a research centre of the Ministry of Agriculture dedicated to corn breeding by traditional and molecular methods. Leader of the gene and trait mapping group.
- 1996 October-November. “Visiting scientist” at Keygene N.V., Wageningen, The Netherlands. In this period I adapted the AFLP technology to the analysis of the animal genome.

- 1995 February-March. “Visiting scientist” at Keygene N.V., Wageningen, The Netherlands to run a collaborative project between the Experimental Station for Cereal Crops, Bergamo, and Keygene on QTL mapping in maize.
- 1987-1988 “Visiting scientist” at Escagenetics Corporation, S. Carlos, California, USA, a plant biotech company. In this period I contributed in projects on in vitro date palm tissue culture and phytovanilla production from cultured vanilla cells.

Fig.1. Schematic representation of the candidate career.



### **MANAGEMENT EXPERIENCE**

I have experience in managing national and international research groups. I coordinated two very successful European projects on livestock biodiversity (ECONOGENE and GLOBALDIV, see details below). Both comprised large consortia of scientists (80 in Econogene, see list at [www.econogene.eu](http://www.econogene.eu) and 35 in Globaldiv see [www.globaldiv.eu](http://www.globaldiv.eu)).

Econogene coordination was a fundamental experience. I learned how to motivate people, foster collaborations and manage disputes. The project was highly multidisciplinary, involving scientists working in animal husbandry, breeding, molecular and population genetics, socio-economics and GISscience. Econogene strategies and protocols for the investigation of livestock diversity have quickly become international standards. Excellent results were also obtained from the cross-fertilization of different sciences. Econogene primed the development of Landscape Genomics that conjugates GISscience and molecular genetics and that now, in the genomic era, is being exploited to its full potential to identify genes associated to adaptation to environmental challenges (climate, diseases, etc).

Globaldiv involved scientists from Europe and international agencies (FAO, IAEA, EAAP, ILRI Kenia, ILRI China) and overseas Institutions (San Paolo State University, Brazil). This project had a large impact on the scientific community (in 2010 the five Globaldiv papers published in a dedicated issue of *Animal Genetics*, the official journal of the International Animal Genetics Society ranked 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> 5<sup>th</sup> and 13<sup>th</sup> most downloaded papers of the journal) on young researchers (three summer school were attended by young scientists from 45 different countries) and other stakeholders interested in livestock biodiversity (the Newsletters were downloaded more than 67,000 times). The Consortium gave a significant contribution to the definition of FAO guidelines for the molecular characterization of farm animal genetic resources.

Because of the positive outcome of the management of these projects, IAEA (the International Agency for Atomic Energy) invited me to join two projects on livestock diversity and disease resistance (see details below) in Asia, and ICAR (the International Committee for Animal Recording), to coordinate a Working Group setting standard for livestock DNA analysis for parentage testing. I coordinated this group until 2012, when my new duties as director at Università Cattolica induced me to resign from ICAR. During GLOBALDIV coordination I was also invited by FAO to contribute to the formulation of FAO “Molecular genetic characterization of animal genetic resources” and to be part of an international task force for the evaluation of Livestock and Fish program of the CGIAR (Consultative Group for International Agricultural Research).

At the national level I recently coordinated the dairy cattle research group of three large livestock genomic projects (GEN2PHEN, SELMOL and INNOVAGEN). The group I lead comprised most Italian scientists involved in dairy cattle research and representatives of the three major dairy cattle Italian breeder associations (ANAFI, ANARB and ANAPRI). SelMol primed the first use of Genomic Selection in Italian dairy breeds and permitted ANAFI, ANARB and ANAPRI to remain at the forefront of animal breeding, set up important international collaboration and use modern technologies for speeding up the genetic progress of national dairy populations. Innovagen has also explored the use of large scale sequencing in genome wide analyses.

At the local level I coordinate four research groups. At the Biodiversity and Ancient DNA Research Center (BioDNA – <http://centridiricerca.unicatt.it/biodna>) I coordinate the research in biodiversity and ancient DNA of the six founder Institutes (Agronomia generale e coltivazioni erbacee, Botanica e genetica vegetale, Chimica agraria ed ambientale, Entomologia e patologia vegetale, Microbiologia, Frutti-viticultura, Scienze degli alimenti e della nutrizione, Zootecnica). In addition I direct and lead an Inter-Institute research group investigating nutrigenomics and metagenomics in mouse and pigs. I also direct and coordinate research in animal production at the Institute of Zootechnics. Finally, I coordinate my previous research group that focuses efforts on animal genomics.

My management experience has recently extended to administration aspects with my appointments in the Board of Directors (Consiglio di Amministrazione) of the Consorzio di Ricerca e Sperimentazione degli Allevatori (CRSA) and of the Istituto Sperimentale Italiano Lazzaro Spallanzani.

In summary:

- Coordinator of the national project PRIN 2011 on livestock genomics and nutrigenomics.
- Coordinator of GLOBALDIV (GenRes, 2007-2009) “A global view of livestock biodiversity and conservation”.
- Coordinator of ECONOGENE (FP5-2002-2004) "Sustainable conservation of animal genetic resources in marginal rural areas: integrating molecular genetics, socio-economic and geostatistical approaches".
- Chairman of the ICAR (International Committee for Animal Recording) “DNA Analysis Working Group” on the use of molecular information in animal breeding (2004-2012).
- Coordinator of the national project PRIN 2007 on livestock evolutionary history.
- Coordinator of the dairy cattle genomics group within the national project SelMol 2009-2011 (Molecular Selection).
- Coordinator of the dairy cattle genomics group within the national project Innovagen 2011-2013 (Molecular Selection).
- Member of the Board of Directors (Consiglio di Amministrazione) of CRSA (Consorzio di Ricerca Sperimentazione degli Allevatori), since 2012.

- Member of the Board of Directors (Consiglio di Amministrazione) of Istituto Sperimentale Italiano Lazzaro Spallanzani, since 2012.
- Former Director and presently research coordinator of the BioDNA Research Center of the Università Cattolica.
- Director of the “Pronutrigen” Research Center on nutrigenomics and proteomics.
- Coordinator the research team in Animal Genomics at Università Cattolica.
- “Scientific Advisor” of the FAO/IAEA project "Gene Based Technologies in Livestock Breeding: Phase 1 - Characterisation of Small Ruminant Genetic Resources in Asia" (2004-2008), as appointed by the International Agency for Atomic Energy (IAEA).
- Scientific advisor of the FAO/IAEA CRP project “CRP on Genetic Variation on the Control of Resistance to Infectious Diseases in Small Ruminants for Improving Animal Productivity (2011-2015) as appointed by the International Agency for Atomic Energy (IAEA).

### ***INTERNATIONAL AND NATIONAL APPOINTMENTS***

In addition to appointments described in the previous section, in FP7 I have been invited by the Ministry of Research to join the Italian delegation for the Programme Committee of the 7<sup>th</sup> Framework Program in Area 2 (Agriculture, Food, Biotechnology and Fishery). The Programme Committee comprises delegations from 27 countries and has the task to orient the Framework Programme, proposing research areas and specific topics and to monitor the process of project evaluation and fund allocation to successful projects. This experience was very complementary to my previous experience as applicant to EU research funding (I participated in 7 EU projects, see list in the next section) and fundamental to understand the European Research Policy and associated mechanisms. The research group I coordinate is presently involved in three EU funded projects, two are under evaluation and others are about to be submitted within Horizon2020. Other appointments include participation in advisory and management groups at the national and international level.

In detail:

- Member of the Italian delegation of the EU FP7 Programme Committee in Area 2 “Food and Biotechnology”.
- Member of the "ISAG/FAO advisory group on animal genetic diversity ".
- Member of CTC (Central Technical Commission) of ANAFI (Associazione Nazionale Allevatori di razza Frisona Italiana; Italian Holstein-Friesian cattle breeder association).
- Member of the Steering Committee of SIGA (Italian Society for Genetics in Agriculture) (1999-2000).
- Member of the Bioethics Committee for the evaluation of animal experimentation at the Policlinico Gemelli of the Università Cattolica del Sacro Cuore (2007-2011).

### ***FUND RAISING***

In my career I have been quite successful in raising and manage funds from a number of different local, national and international sources (European Union, Ministry of Research, Agriculture and Health, Foundations, Regions and Provinces). I never calculated the total amount but estimate to sum

to several millions of Euro that in projects I coordinated have always been properly shared among Partners as a function of efforts, tasks and research needs. In detail:

### ***International projects***

- CLIMGEN (Eragnet plus 2015-2016) “Climate Genomics for Farm Animal Adaptation” (Partner)
- GLOBALDIV (GenRes, 2007-2009) “A global view of livestock biodiversity and conservation” (Coordinator).
- ECONOGENE (FP5-2002-2004) "Sustainable conservation of animal genetic resources in marginal rural areas: integrating molecular genetics, socio-economic and geostatistical approaches". (Coordinator).
- TRACE (FP6-2005-2009) "Tracing food commodities in Europe"
- INTRABIODIV (FP6-2004-2006) "Tracking surrogates for intraspecific biodiversity: towards efficient selection strategies for the conservation of natural genetic resources using comparative mapping and modelling approaches"
- BOVGEN (FP5-2003-2005) "Structural and functional genomics tools for cattle research".
- GEMQUAL "Genetics of Meat Quality" (FP5-2002-2005).
- RESGEN (FP5-2000-2002) "Towards a strategy for the conservation of the genetic diversity of European cattle".

### ***National projects***

#### ***Ministry of research***

- GENHOME (2013-2015) “Resort tecnologico per la ricerca genomica applicata alle scienze animali – GENHOME” (Technological resort for the advancement of animal genomic research).
- PRIN (2012-2014) “Ricerca delle basi genetiche di nuovi fenotipi legati al benessere, all’efficienza ed alla sostenibilità ambientale delle produzioni dei bovini da latte - GEN2PHEN“ (Investigation of the genetic basis of novel phenotypes linked to welfare, sustainability and efficiency in dairy cattle - GEN2PHEN)
- PRIN (2008-2010) “Ricostruzione della storia evolutiva di bovini, ovini e caprini italiani attraverso il sequenziamento completo del genoma mitocondriale“ (Reconstruction of the evolutionary history of italian cattle sheep and goats by sequencing the entire mitochondrial genome)
- FIRB laboratorio (2005-2009) “Piattaforma per la genomica nel settore vegetale e zootecnico (HTTP://DNA)” (Genomic platform for plant and animal genomics)
- FIRB laboratorio LATEMAR (2005-2009) “Laboratorio di Tecnologie Elettrobiochimiche Miniaturizzate per l’Analisi e la Ricerca”. Parte dell’unità biologica coordinata da Telethon. (Nanotechnologies applied to the development of devices for genome and proteome analysis) as member of the Biology Unit coordinated by Telethon.
- PRIN (2005-2006) “Messa a punto di sistemi innovativi di diagnostica molecolare per la tracciabilità di specie animali di uso alimentare. (Molecular diagnostics for traceability purposes)
- Progetto strategico (2003-2005) "Studio e sviluppo di tecnologie innovative e pulite per il miglioramento e la razionalizzazione del ciclo produttivo conciario e di un sistema di recupero dei sottoprodotti e dei rifiuti derivanti dalla pelle: caratterizzazione genetica di animali di specie e razze diverse e individuazione del modello biologico ideale di pelle". (Investigation on the genetic basis of leather quality)

- FIRB negoziale (2002-2004) "Identificazione ed analisi dei geni nel suino per lo studio e il miglioramento della produzione e della qualità della carne". (Identification of genes involved in pork quality by microArray analysis)

### ***Ministry of Agriculture***

- Innovagen(2011-2013) “Ricerca e INNOVAzione nelle attività di miglioramento GENetico animale mediante tecniche di genetica molecolare per la competitività del sistema zootecnico nazionale” (Genomics applied to livestock breeding).
- SelMol (2007-2010) “Ricerca e innovazione nelle attività di miglioramento genetico animale mediante tecniche di selezione molecolare per la competitività del sistema zootecnico nazionale” (Genomics applied to livestock breeding).

### ***Ministry of Health***

- Progetto di Ricerca Corrente "Studio ed applicazione di metodologie molecolari in alimenti ad uso zootecnico ed umano" (2003-2004). (Molecular diagnostics in food)
- Progetto di Ricerca Corrente "Metodi di prova per il controllo del rischio tossicologico e virologico nei prodotti ittici" (2002-2003). (Molecola diagnostics in fish)
- Progetto di Ricerca Finalizzato "Caratterizzazione genetica di ceppi del virus della PRRS e determinazione della virulenza mediante prove "in vivo" (2002-2003). (Characterization of PRRS virus)
- Progetto di Ricerca Finalizzato "Ampliamento della collezione dei substrati cellulari e perfezionamento dei controlli qualitativi" (1998-1999). (Detection of contaminations in immortalised cultured cell lines)
- Progetto di Ricerca Finalizzato "Determinazione della capacità di un virus geneticamente modificato della pseudorabbia di stimolare l'immunità cellulare e valutazione delle caratteristiche di innocuità rispetto alle norme previste dalla Farmacopea Europea". (1998-1999). (Characterization of pseudorabie virus)

### ***Regions and Provinces***

- “Caratterizzazione di razze asinine allevate nella regione Emilia Romagna” (2005). (Investigation of donkey diversity)
- "Valorizzazione della razza bovina Romagnola attraverso la certificazione della carne per via molecolare (2000-2002). (Molecular traceability of Romagnola beef)
- "Valorizzazione delle produzioni della razza bovina Romagnola attraverso lo sfruttamento del locus della Miostatina" (2000-2002). (Search for Myostatin mutations causing double muscling in Romagnola)
- "Paresi spastica del bovino: ulteriore fattore di rischio per la salvaguardia della biodiversità genetica della razza Romagnola" (2002-2004). (Investigation of the genetic basis of spastic paresis in Romagnola cattle)
- “Diversità genetica e potenzialità di acquacoltura delle popolazioni naturali di salmonoidi in Trentino (2003-2005). (Salvelinus alpinus genetic diversity)

### ***Foundations***

- Ager “Compatibilità ambientale e benessere animale nella filiera del suino per migliorare la redditività e garantire la sostenibilità – filiera suino verde”. (pig animal welfare and environmental impact to improve economic return and sustainability of pig farming). Funded by a network of Italian Foundations.
- “Nutrigenomica” (2007-2012) (Nutrigenomics) funded by Invernizzi Foundation

- “Tracciabilità molecolare dei prodotti agro-alimentari di origine animale nella regione Lombardia” (2004-2007) funded by CARIPLO Foundation. (Molecular traceability of food products in Lombardy Region)

### ***INVITED LECTURES, EDITORIAL AND REVIEWER ACTIVITY***

A very high number of international collaborations and contacts have been set through international projects I coordinated and in which I participated. These relationships have increased the scientific knowledge of my group, has led to a continuous growth of the number of publications per year and at reaching top level publications (Science, PLoS One, PNAS, Current Biology, Molecular Ecology, Proceedings of the Royal Society B, etc).

As a consequence of these achievements, I have been invited to give a number of invited lectures in different countries, to join the editorial board of international journals, to participate in international consortia and to review national and international projects, Ph D degrees, etc. In detail:

- Associate editor of “Genetics, Selection, Evolution”
- Member of the Editorial Board of “Animal Genetics”
- Guest editor of “Frontiers in Genetics”
- EU Expert for the independent evaluation of project proposals in FP5, FP6 and FP7 in the areas Food and Agriculture and Health.
- Evaluator of project proposals for the “Armenise Harvard Foundation”
- Evaluator of project proposals for the “Third World Academy of Science”
- Evaluator of project proposals for the Italian Ministry of Agriculture
- Ad hoc referee of 12 international journals (Nature Methods, PLoS-ONE, Journal of Dairy Science, Journal of Animal Science, Genetics Selection Evolution, Animal Genetics, Small Ruminant Research, Journal of Animal Breeding and Genetics; Molecular Ecology, Plant Molecular Biology; Theoretical and Applied Genetics; Molecular Breeding, Maydica).
- Invited speaker in 2008-2015 in different Countries and events: Edinburgh and London (UK), Barcelona and Zaragoza (ES), Wageningen and Lelystad (NL), Wien and Salzburg (AU), Paris and Strasbourg (FR), Bruxelles (BE), Zurich (CH), Turku (EE), Zara (HR), Katowice (PL) Ankara and Tekirdag (TK), Kampala (UG), Riyadh (SA), Aracatuba (BR), Rome, Cremona, Teramo, Salsomaggiore, Florence, Bologna, Fiorenzuola, Antey, Piacenza, Sassari Reggio Emilia, Manerbio, Lodi, Como and Milan (IT).
- Member of the Functional Annotation of Animal Genomes (FAANG) Initiative
- Member of the “Ovine HapMap project Consortium”.
- Member of the “Goat Genomics Consortium”
- Member of the “Ruminant Biology Consortium”
- Member of the “Buffalo Genomics Consortium”

## ***EDUCATION***

- 1999, March, Leon (Spain). Advanced course "Molecular Techniques in Animal Breeding" organised by the Mediterranean Agronomic Institute of Zaragoza.
- 1995-1997. Diploma cum laude at the "Scuola di specializzazione" in Applied Genetics at the Faculty of Science of the Università degli Studi, in Milano, Italy (Ph. D. equivalent).
- 1987-1988 October – February. Course "FORTRAN" at the Faculty of Engineering of San Jose State University, California, USA.
- 1987 August. Course "Agricultural Applications of Plant Tissue Culture" at Riverside University, Riverside, California, USA.
- 1986. Certified professional agronomist.
- 1980-1986 "Laurea" (Bachelor and Master degree equivalent, grade 110/110) in Agricultural Science at the Faculty of Agriculture of the Università degli Studi, in Milano, Italy.

## ***ORGANIZATIONAL SKILLS AND COMPETENCES***

I discovered that my main abilities consist in the coordination of research groups and in creating solid and loyal relationships with excellent scientists from many different fields and countries. I have always done my best to work honestly, for the good of the group, the system in which I worked and the people with which I collaborated. This attitude paid me back sometimes beyond my real merits. In synthesis:

- Team leader. I know how to guide a group, motivate people and lead them towards successful results.
- Experience in coordination and administration of people, projects and budgets.
- Good qualitative and quantitative analytical abilities, excellent organizational skills with special attention to details.
- Capability of working in multi-tasking and multi-cultural environments.
- Positive attitude, team-oriented with strong interpersonal skills.

## ***Language***

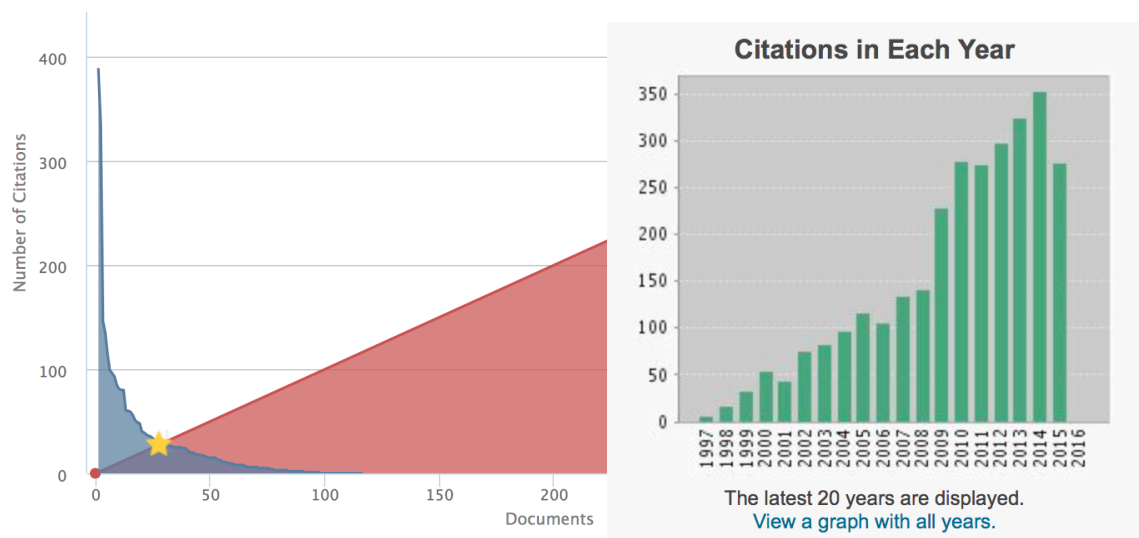
- Excellent oral and written communication skills in English and Italian.



## H-INDEX AND PUBLICATIONS

At the time of writing this CV (mid October 2015), Scopus reports 116 papers, a H-index of 28 and 3164 total cites. ISI (search string Ajmone Marsan P OR Ajmone-Marsan P OR Ajmonemarsan P OR Marsan PA) reports 155 papers, a H Index of 28 and 3001 total cites. Google Scholar reports 178 papers, a H Index of 30 and 3389 total cites.

Figure 2. H-index graph downloaded from Scopus (left) and citations per year graph copied from ISI (right).



## LIST OF PUBLICATIONS

### A. Animal Genetics and Genomics

#### Papers on ISI journals

1. Macciotta, N.P.P., Gaspa, G., Bomba, L., Vicario, D., Dimauro, C., Cellesi, M., **Ajmone-Marsan, P.** Genome-wide association analysis in Italian Simmental cows for lactation curve traits using a low-density (7K) SNP panel. **Journal of Dairy Science** **2015**, Article in Press.
2. Nicoloso, L., Bomba, L., Colli, L., Negrini, R., Milanesi, M., Mazza, R., Sechi, T., Frattini, S., Talenti, A., Coizet, B., Chessa, S., Marletta, D., D'Andrea, M., Bordonaro, S., Ptak, G., Carta, A., Pagnacco, G., Valentini, A., Pilla, F., **Ajmone-Marsan, P.**, Crepaldi, P. Genetic diversity of Italian goat breeds assessed with a medium-density SNP chip. **Genetics Selection Evolution** **2015**, 47 (1), art. no. 140, .
3. Capomaccio, S., Milanesi, M., Bomba, L., Cappelli, K., Nicolazzi, E.L., Williams, J.L., **Ajmone-Marsan, P.**, Stefanon, B. Searching new signals for production traits through gene-based association analysis in three Italian cattle breeds. **Animal Genetics** **2015**, 46 (4), pp. 361-370.
4. Chessa, S., Nicolazzi, E.L., Nicoloso, L., Negrini, R., Marino, R., Vicario, D., **Ajmone Marsan, P.**, Valentini, A., Stefanon, B. Analysis of candidate SNPs affecting milk and functional traits in the dual-purpose Italian Simmental cattle. **Livestock Science** **2015**, 173: 1-8.
5. Perez O'Brien AM, Höller D, Boison SA, Milanesi M, Bomba L, Utsunomiya YT, Carvalheiro R, Neves HHR, da Silva MVB, VanTassell CB, Sonstegard TS, Mészáros G, **Ajmone-Marsan P**, Garcia JF, Sölkner J. Low levels of taurine introgression in the current Brazilian Nelore and Gir indicine cattle populations. **Genetics Selection Evolution** **2015**, 47 (1): 31.

6. Bomba L., Nicolazzi E.L., Milanese M., Negrini R., Mancini R., Biscarini F., Stella A., Valentini A., **Ajmone Marsan P.** Relative extended haplotype homozygosity signals across breeds reveal dairy and beef specific signatures of selection. **Genetics Selection Evolution**, **2015**, 47 (1): 25.
7. Capomaccio S., Milanese M., Bomba L., Vajana E. and **Ajmone Marsan P.** MUGBAS: a species free gene-based programme suite for post-GWAS analysis. **Bioinformatics**, **2015**, 31 (14): 2380-2381.
8. Orozco-terWengel P, Barbato M, Nicolazzi EL, Biscarini F, Milanese M, Davies W, Williams D, Stella A, **Ajmone-Marsan P**, Bruford MW. Revisiting demographic processes in cattle with genome wide population genetics analysis. **Frontiers in Genetics** **2015**, 6 (Jun): 191.
9. Marras G, Gaspa G, Sorbolini S, Dimauro C, **Ajmone-Marsan P**, Valentini A, Williams JL, Macciotta NP. Analysis of runs of homozygosity and their relationship with inbreeding in five cattle breeds farmed in Italy. **Animal Genetics** **2015** 46(2):110-21.
10. Milanese M., D. Vicario, A. Stella, A. Valentini, **P. Ajmone-Marsan**, S. Biffani, F. Biscarini, G. Jansen and E. L. Nicolazzi. Imputation accuracy is robust to cattle reference genome updates. **Animal Genetics** **2015**, 46(1):69-72.
11. Gaspa G., H. Jorjani, C. Dimauro, M. Cellesi, **P. Ajmone-Marsan**, A. Stella and N. P. P. Macciotta. Multiple-breed genomic evaluation by principal component analysis in small size populations. **Animal** **2014**, Dec 8:1-12.
12. Mancini G., Maria Gargani, Giovanni Chillemi, Ezequiel Luis Nicolazzi, **Paolo Ajmone Marsan**, Alessio Valentini, Lorraine Pariset. Signatures of selection in five Italian cattle breeds detected by a 54K SNP panel. **Mol Biol Rep** **2014**, 41:957–965.
13. Lv FH, Agha S, Kantanen J, Colli L, Stucki S, Kijas JW, Joost S, Li MH, **Ajmone Marsan P.** Adaptations to Climate-Mediated Selective Pressures in Sheep. **Molecular Biology and Evolution** **2014**, 31:3324-3343.
14. Bomba L, Minuti A, Moisés SJ, Trevisi E, Eufemi E, Lizier M, Chegdani F, Lucchini F, Rzepus M, Prandini A, Rossi F, Mazza R, Bertoni G, Looor JJ, **Ajmone Marsan P.** Bioinformatics analyses of the gut response induced by weaning in piglets reveals marked changes in immune and inflammatory response. **Functional & Integrative Genomics** **2014**, 14:657-671.
15. **Ajmone-Marsan P**, Colli L, Han JL, Achilli A, Lancioni H, Joost S, Crepaldi P, Pilla F, Stella A, Taberlet P, Boettcher P, Negrini R, Lenstra JA. The characterization of goat genetic diversity: Towards a genomic approach. **Small Ruminant Research** **2014**, 121:58–72.
16. Vahidi SMF, Tarang AR, Naqvi A--, Falahati Anbaran M, Boettcher P, Joost S, Colli L, Garcia JF, **Ajmone-Marsan P.** Investigation of the genetic diversity of domestic capra hircus breeds reared within an early goat domestication area in iran. **Genetics Selection Evolution** **2014**; 46(1).
17. Utsunomiya YT, Bomba L, Lucente G, Colli L, Negrini R, Lenstra JA, Erhardt G, Garcia JF, **Ajmone-Marsan P.** and the Cattle Genetic Diversity Consortium. Revisiting AFLP fingerprinting for an unbiased assessment of genetic structure and differentiation of taurine and zebu cattle. **BMC Genetics** **2014**;15.
18. Ciani E, Crepaldi P, Nicoloso L, Lasagna E, Sarti FM, Moioli B, Napolitano F, Carta A, Usai G, D'Andrea M, Marletta D, Ciampolini R, Riggio V, Occidente M, Matassino D, Kompan D, Modesto P, Macciotta N, **Ajmone-Marsan P**, Pilla F. Genome-wide analysis of italian sheep diversity reveals a strong geographic pattern and cryptic relationships between breeds. **Anim Genet** **2014**;45(2):256-66.
19. Colli L, Joost S, Negrini R, Nicoloso L, Crepaldi P, **Ajmone-Marsan P.** and the Econogene Consortium. Assessing the spatial dependence of adaptive loci in 43 european and western asian goat breeds using AFLP markers. **PLoS ONE** **2014**;9(1).

20. Fontanesi L, Calò DG, Galimberti G, Negrini R, Marino R, Nardone A, **Ajmone-Marsan P**, Russo V. A candidate gene association study for nine economically important traits in Italian Holstein cattle. **Anim Genet** **2014**;45(4):576-80.
21. Lenstra JA, **Ajmone-Marsan P**, Beja-Pereira A, Bollongino R, Bradley DG, Colli L, De Gaetano A, Edwards CJ, Feliuss M, Ferretti K, Ginja C, Hristov P, Kantanen J, Lirón JP, Magee DA, Negrini R, Radoslavov GA. Meta-analysis of mitochondrial DNA reveals several population bottlenecks during worldwide migrations of cattle. **Diversity** **2014**;6(1):178-87.
22. Minozzi G., Nicolazzi E.L., Stella A., Biffani S., Negrini R., **Ajmone Marsan P.**, Williams J.L. Genome Wide Analysis of Fertility and 1 Production Traits in Italian Holstein Cattle. **PLoS ONE** **2013**, volume 8, Issue 11, 12 November 2013, Article number e80219.
23. Mariotti M; Valentini A; **Marsan PA**; Pariset L. Mitochondrial DNA of seven Italian sheep breeds shows faint signatures of domestication and suggests recent breed formation. **Mitochondrial DNA** **2013**, 24 (5): 577-583.
24. Lizier, M; Bomba, L; Minuti, A; Chegdani, F; Capraro, J; Tondelli, B; Mazza, R; Callegari, ML; Trevisi, E; Rossi, F; **Marsan, PA**; Lucchini, F. The nutrigenomic investigation of C57BL/6N mice fed a short-term high-fat diet highlights early changes in clock genes expression. **Genes and Nutrition** **2013**, 8 (5): 465-474.
25. Mancini, G., Nicolazzi, E.L., Valentini, A., Chillemi, G., **Ajmone Marsan, P.**, Santus, E., Pariset, L. Association between single nucleotide polymorphisms (SNPs) and milk production traits in Italian Brown cattle. **Livestock Science** **2013**, 157 (1), pp. 93-99.
26. Dimauro, C., Cellesi, M., Gaspa, G., **Ajmone-Marsan, P.**, Steri, R., Marras, G., Macciotta, N.P.P. Use of partial least squares regression to impute SNP genotypes in Italian Cattle breeds. **Genetics Selection Evolution** **2013**, 45 (1), art. no. 15, .
27. Nicoloso, L., Crepaldi, P., Mazza, R., **Ajmone-Marsan, P.**, Negrini, R. Recent advance in DNA-based traceability and authentication of livestock meat PDO and PGI products. **Recent Patents on Food, Nutrition and Agriculture** **2013**, 5 (1), pp. 9-18.
28. McClure, M., Kim, E., Bickhart, D., Null, D., Cooper, T., Cole, J., Wiggans, G., **Ajmone-Marsan, P.**, Colli, L., Santus, E., Liu, G.E., Schroeder, S., Matukumalli, L., Van Tassell, C., Sonstegard, T. Fine Mapping for Weaver Syndrome in Brown Swiss Cattle and the Identification of 41 Concordant Mutations across NRCAM, PNPLA8 and CTTNBP2. **PLoS ONE** **2013**, 8 (3), art. no. e59251.
29. Cicconardi, F., Chillemi, G., Tramontano, A., Marchitelli, C., Valentini, A., **Ajmone-Marsan, P.**, Nardone, A. Massive screening of copy number population-scale variation in Bos taurus genome. **BMC Genomics** **2013**, 14 (1), art. no. 124.
30. Colli, L., Perrotta, G., Negrini, R., Bomba, L., Bigi, D., Zambonelli, P., Verini Supplizi, A., Liotta, L., **Ajmone-Marsan, P.** Detecting population structure and recent demographic history in endangered livestock breeds: The case of the Italian autochthonous donkeys. **Animal Genetics** **2013**, 44 (1), pp. 69-78.
31. Lenstra, J.A., Groeneveld, L.F., Eding, H., Kantanen, J., Williams, J.L., Taberlet, P., Nicolazzi, E.L., Sölkner, J., Simianer, H., Ciani, E., Garcia, J.F., Bruford, M.W., **Ajmone-Marsan, P.**, Weigend, S. Molecular tools and analytical approaches for the characterization of farm animal genetic diversity. **Animal Genetics** **2012**, 43 (5), pp. 483-502.
32. Bonfiglio, S., Ginja, C., de Gaetano, A., Achilli, A., Olivieri, A., Colli, L., Tesfaye, K., Agha, S.H., Gama, L.T., Cattonaro, F., Penedo, M.C.T., **Ajmone-Marsan, P.**, Torroni, A., Ferretti, L. Origin and spread of Bos taurus: New clues from mitochondrial genomes belonging to haplogroup T1. **PLoS ONE** **2012**, 7 (6), art. no. e38601, .
33. Pintus, M.A., Gaspa, G., Nicolazzi, E.L., Vicario, D., Rossoni, A., **Ajmone-Marsan, P.**, Nardone, A., Dimauro, C., Macciotta, N.P.P. Prediction of genomic breeding values for dairy traits in Italian

- Brown and Simmental bulls using a principal component approach. **Journal of Dairy Science** **2012**, 95 (6), pp. 3390-3400.
34. Negrini, R., D'Andrea, M., Crepaldi, P., Colli, L., Nicoloso, L., Guastella, A.M., Sechi, T., Bordonaro, S., **Ajmone-Marsan, P.**, Pilla, F. Effect of microsatellite outliers on the genetic structure of eight Italian goat breeds. **Small Ruminant Research** **2012**, 103 (2-3), pp. 99-107.
  35. Nicoloso, L., Negrini, R., **Ajmone-Marsan, P.**, Crepaldi, P. On the way to functional agro biodiversity: Coat colour gene variability in goats. **Animal** **2012**, 6 (1), pp. 41-49.
  36. Pariset, L., Mariotti, M., Gargani, M., Joost, S., Negrini, R., Perez, T., Bruford, M., **Marsan, P.A.**, Valentini, A. Genetic diversity of sheep breeds from Albania, Greece, and Italy assessed by mitochondrial DNA and nuclear polymorphisms (SNPs). **TheScientificWorldJournal** **2011**, 11, pp. 1641-1659.
  37. Giulietta Minozzi, Ezequiel L Nicolazzi, Francesco Strozzi, Alessandra Stella, Riccardo Negrini, **Paolo Ajmone-Marsan**, John L Williams. Genome wide scan for somatic cell counts in holstein bulls. **BMC Proc.** **2011**, 5(Suppl 4):S17.
  38. Silvia Bonfiglio, Alessandro Achilli, Anna Olivieri, Riccardo Negrini, Licia Colli, Luigi Liotta, **Paolo Ajmone-Marsan**, Antonio Torroni and Luca Ferretti The Enigmatic Origin of Bovine mtDNA Haplogroup R: Sporadic Interbreeding or an Independent Event of Bos primigenius Domestication in Italy? **PLoS ONE** **2010**, 28;5(12):e15760.
  39. Denis Laloë, Katayoun Moazami-Goudarzi, Johannes A. Lenstra, **Paolo Ajmone Marsan**, Pedro Azor, Roswitha Baumung, Daniel G. Bradley, Michael W. Bruford, Javier Cañón, Gaudenz Dolf, Susana Dunner, Georg Erhardt, Godfrey Hewitt, Juha Kantanen, Gabriela Obexer-Ruff, Ingrid Olsaker, Clemen Rodellar, Alessio Valentini, Pam Wiener, European Cattle Genetic Diversity Consortium and Econogene Consortium. Spatial Trends of Genetic Variation of Domestic Ruminants in Europe. **Diversity** **2010**, 2, 1-x manuscripts; doi:10.3390/d20x000x.
  40. Stella A., **Ajmone Marsan P.** and Boettcher P. Identification of Selection Signatures in Cattle Breeds Selected for Dairy Production, **Genetics** **2010**,185:1451-61.
  41. **Ajmone Marsan P**, Garcia JF, Lenstra JA. On the Origin of Cattle: how Aurochs became Cattle and Colonized the World. **Evolutionary Anthropology** **2010**, 19:148–157.
  42. Boettcher PJ, M. Tixier-Boichard, M. Toro, H. Simianer, H. Eding, G. Gandini, S. Joost, D. Garcia, L. Colli, **P. Ajmone-Marsan** and the GLOBALDIV Consortium. Objectives, criteria and methods for using molecular genetic data in priority setting for conservation of animal genetic resources. **Animal Genetics** **2010**, 41 (Suppl. 1), 64–77.
  43. Joost S, P.V. Baret, J.F. Garcia, P.J. Boettcher, M. Tixier-Boichard, **P. Ajmone-Marsan** and the GLOBALDIV Consortium. Integrating geo-referenced multiscale and multidisciplinary data for the management of biodiversity in livestock genetic resources. **Animal Genetics** **2010**, 41 (Suppl. 1), 47–63.
  44. **Ajmone Marsan P.** A global view of livestock biodiversity and conservation – GLOBALDIV. **Animal Genetics** **2010**, 41 (Suppl. 1), 1–5.
  45. Mazza R, Strozzi F, Caprera A, **Ajmone-Marsan P** and Williams JL. The other side of comparative genomics: genes with no orthologs between the cow and other mammalian species. **BMC Genomics** **2009**, issue 10, art. n. 604.
  46. Pariset L, Cuteri A, Ligda C, **Ajmone-Marsan P**, Valentini A, Econogene Consortium. Geographical patterning of sixteen goat breeds from Italy, Albania and Greece assessed by Single Nucleotide Polymorphisms. **BMC Ecology** **2009**, issue 9, art. no. 20.
  47. Pariset L, Joost S, **Ajmone Marsan P**, Valentini A and Econogene Consortium. Landscape genomics and biased FST approaches reveal single nucleotide polymorphisms under selection in goat breeds of North-East Mediterranean. **BMC Genetics** **2009**, issue 10, art. N. 7. doi:10.1186/1471-2156-10-7.

48. Achilli A, Bonfiglio S, Olivieri A, Malusà A, Pala M, Kashani BH, Perego UA, **Ajmone-Marsan P**, Liotta L, Semino O, Bandelt HJ, Ferretti L, Torroni A. The multifaceted origin of taurine cattle reflected by the mitochondrial genome. **PLoS ONE** 2009; 4 (6), art. no. e5753
49. Williams JL, Dunner S, Valentini A, Mazza R, Amarger V, Checa ML, Crisà A, Razzaq N, Delourme D, Grandjean F, Marchitelli C, García D, Pérez Gomez R, Negrini R, **Ajmone Marsan P**, Levéziel H. Discovery, characterization and validation of single nucleotide polymorphisms within 206 bovine genes that may be considered as candidate genes for beef production and quality. **Animal Genetics** 2009, 40 (4), pp. 486-491.
50. Chessa B., F. Pereira, F. Arnaud, A. Amorim, F. Goyache, I. Mainland, R.R. Kao, J. M. Pemberton, D. Beraldi, M. Stear, A. Alberti, M. Pittau, M.H. Banabazi, R. Kazwala, Y.-P. Zhang, J.J. Arranz, B.A. Ali, Z. Wang, M. Uzun, M. Dione, I. Olsaker, L.-E. Holm, U. Saarma, S. Ahmad, N. Marzanov, E. Eythorsdottir, M.J. Holland, **P. Ajmone-Marsan**, M.W. Bruford, J. Kantanen, T.E. Spencer and M. Palmarini. Revealing the history of sheep domestication using retrovirus integration. **Science**, 2009: 324:532-536.
51. Bovine HapMap Consortium, Gibbs RA, Taylor JF, Van Tassell CP, Barendse W, Eversole KA, Gill CA, Green RD, Hamernik DL, Kappes SM, Lien S, Matukumalli LK, McEwan JC, Nazareth LV, Schnabel RD, Weinstock GM, Wheeler DA, **Ajmone-Marsan P**, Boettcher PJ, Caetano AR, Garcia JF, Hanotte O, Mariani P, Skow LC, Sonstegard TS, Williams JL, Diallo B, Hailemariam L, Martinez ML, Morris CA, Silva LO, Spelman RJ, Mulatu W, Zhao K, Abbey CA, Agaba M, Araujo FR, Bunch RJ, Burton J, Gorni C, Olivier H, Harrison BE, Luff B, Machado MA, Mwakaya J, Plastow G, Sim W, Smith T, Thomas MB, Valentini A, Williams P, Womack J, Woolliams JA, Liu Y, Qin X, Worley KC, Gao C, Jiang H, Moore SS, Ren Y, Song XZ, Bustamante CD, Hernandez RD, Muzny DM, Patil S, San Lucas A, Fu Q, Kent MP, Vega R, Matukumalli A, McWilliam S, Sclep G, Bryc K, Choi J, Gao H, Grefenstette JJ, Murdoch B, Stella A, Villa-Angulo R, Wright M, Aerts J, Jann O, Negrini R, Goddard ME, Hayes BJ, Bradley DG, Barbosa da Silva M, Lau LP, Liu GE, Lynn DJ, Panzitta F, Dodds KG. Genome-wide survey of SNP variation uncovers the genetic structure of cattle breeds. **Science** 2009, 324:528-532.
52. Pariset L, Joost S, **Ajmone Marsan P**, Valentini A and the Econogene Consortium. Landscape genomics and biased FST approaches reveal Single Nucleotide Polymorphisms under selection in goat breeds of North-East Mediterranean. **BMC Genetics** 2009, issue 10, art. no. 7.
53. Negrini R., Nicoloso L., Crepaldi P., Milanesi E., Colli L., Chegdani F., Pariset L., Dunner S., Leveziel H., Williams J.L, **Ajmone Marsan P**. Assessing SNP markers for assigning individuals to cattle population. **Animal Genetics** 2009, 40: 18-26.
54. Saeid Naderi, Hamid-Reza Rezaei, Francois Pompanon, Michael G. B. Blum, Riccardo Negrini, Hamid-Reza Naghash, Ozge Balkz, Marjan Mashkour, Oscar E. Gaggiotti, **Paolo Ajmone-Marsan**, Aykut Kence, Jean-Denis Vigne, and Pierre Taberlet. The goat domestication process inferred from large-scale mitochondrial DNA analysis of wild and domestic individuals. **Proc. Natl. Acad. Sci. USA**. 2008, 105: 17659-17664. **IF<sub>2007</sub>: 9,430**.
55. R Negrini, L Nicoloso, P Crepaldi, E Milanesi, R. Marino, D. Perini, L Pariset, S Dunner, H Leveziel, JL Williams, **P Ajmone Marsan**, 2008. Traceability of four European Protected Geographic Indication (PGI) beef products using Single Nucleotide Polymorphisms (SNP) and Bayesian statistics, **Meat Science**, 80(4): 1212-1217. **IF<sub>2007</sub>: 2,006**.
56. Negrini R., Nicoloso L., Crepaldi P., Milanesi E., Colli L., Chegdani F., Pariset L., Dunner S., Leveziel H., Williams J.L, **Ajmone Marsan P**, 2008. Application of Bayesian statistics to SNP markers for assigning individuals to cattle populations. *Animal Genetics*, 40: 18-26. **IF<sub>2007</sub>: 2,640**
57. **Ajmone Marsan P**, C. Gorni, E. Milanesi, R. Mazza, M.J.T. van Eijk, J.D. Peleman, J.L. Williams, 2008. Assessment of AFLP markers behaviour in enriching STS radiation hybrid maps. **Animal Genetics**, 39:383-394 **IF<sub>2007</sub>: 2,640**.
58. Milanesi E., Negrini R., Schiavini F., Nicoloso L., Mazza R., Biffani S., Canavesi F., Miglio F., Valentini A., Bagnato A., **Ajmone-Marsan P**, 2008. Identification of QTLs influencing milk

protein percentage in Italian Friesian cattle integrating selective genotyping, DNA pooling, AFLP and microsatellite markers. **J. Dairy Research**, Aug 14: 1-9. **IF<sub>2007</sub>: 1,507**

59. Tramontana S., Bionaz M., Sharma D., Graugnard E., Cutler E.A., **Ajmone-Marsan P.**, Hurley W.L., Looor J.J., 2008. Internal controls for quantitative polymerase chain reaction of swine mammary glands during pregnancy and lactation. **J. Dairy Sci.** 91:3057-3066. **IF<sub>2007</sub>: 2,361**
60. Fortes G.G., Nonnis Marzano F.N., Bouza C., Martinez P., **Ajmone-Marsan P.**, Gandolfi G., 2008. Application of Amplified Fragment Length Polymorphism markers to assess molecular polymorphisms in gynogenetic haploid embryos of turbot (*Scophthalmus maximus*). **Aquaculture Research**, 39: 41-49. **IF<sub>2007</sub>: 1,886**
61. Frezza D., V. Giambra, F. Chegdani, C. Fontana, G. Maccabiani, N. Losio, E. Faggionato, B. Chiappini, G. Vaccari, C. von Holst, L. Lanni, S. Saccares and **P. Ajmone-Marsan**, 2008. Standard and Light-cycler PCR methods for animal DNA species detection in animal feedstuffs. **Inn. Food Sci. & Emerging Technol.** 918-923. **IF<sub>2007</sub>: 1,713**
62. Achilli A., A. Olivieri, M. Pellecchia, C. Uboldi, L. Colli, N. Al-Zahery, M. Accetturo, M. Pala, B.H. Kashani, U.A. Perego, V. Battaglia, S. Fornarino, J. Kalamati, M. Houshmand, R. Negrini, O. Semino, M. Richards, V. Macaulay, L. Ferretti, H.J. Bandelt, **P. Ajmone-Marsan**, A. Torroni, 2008. Mitochondrial Genomes of Extinct Aurochs Survive in Domestic Cattle. **Current Biology**, 18(4): 157-158. **IF<sub>2007</sub>: 10,539**
63. Taberlet P., A. Valentini, H.R. Rezaei, S. Naderi, F. Pompanon, R. Negrini, **P. Ajmone-Marsan**, 2008. Are cattle, sheep and goats endangered species? **Molecular Ecology**, 17:275-284. **IF<sub>2007</sub>: 5,169**
64. Pellecchia, R. Negrini, L. Colli, M. Patrini, E. Milanese, A. Achilli, G. Bertorelle, L.L. Cavalli-Sforza, A. Piazza, A. Torroni and **P. Ajmone Marsan**, 2007. The mystery of Etruscan origins: novel clues from *Bos taurus* mitochondrial DNA. **Proceedings of the Royal Society B-Biological Science**, 274:1175-1179. **IF<sub>2007</sub>: 4,112**
65. R. Negrini, E. Milanese, L. Colli, M. Pellecchia, L. Nicoloso, P. Crepaldi, J.A. Lenstra, **P. Ajmone-Marsan**, 2007. Breed assignment of Italian cattle using biallelic AFLP<sup>®</sup> markers. **Animal Genetics**, 38:147-153. **IF<sub>2007</sub>: 2,640**
66. **Ajmone Marsan P.**, Tramontana S., Mazza R., 2007. Nanotechnologies applied to the analysis of the animal genome. **Vet. Res. Commun. Suppl** 1:153-159. **IF<sub>2007</sub>: 0,529**
67. Negrini R., I.J. Nijman, E. Milanese, K. Moazami-Goudarzi, J.L. Williams, G. Erhardt, S. Dunner, C. Rodellar, A. Valentini, D.G. Bradley, I. Olsaker, J. Kantanen, **P. Ajmone Marsan**, J.A. Lenstra, and the European Cattle Genetic Diversity Consortium, 2007. Differentiation of European cattle by AFLP fingerprinting. **Animal Genetics**, 38: 60-66. **IF<sub>2007</sub>: 2,640**
68. Jann O.C., J. Aerts, M. Jones, N. Hastings, A. Law, S. McKay, E. Marques, A. Prasad, J. Yu, S.S. Moore, S. Floriot, M.F. Mahé, A. Eggen, L. Silveri, R. Negrini, E. Milanese, **P. Ajmone-Marsan**, A. Valentini, C. Marchitelli, M.C. Savarese, M. Janitz, R. Herwig, S. Hennig, C. Gorni, E.E. Connor, T.S. Sonstegard, T. Smith, C. Drögemüller and J.L. Williams, 2006. A second generation radiation hybrid map to aid the assembly of the bovine genome sequence. **BMC Genomics** 2006, 7:283-297. **IF<sub>2007</sub>: 4,180**
69. Canon, J, Garcia D., Garcia-Atance M.A., Obexer-Ruff G., Lenstra J.A., **Ajmone-Marsan P.**, Dunner S. and the ECONOGENE Consortium, 2006. Geographical partitioning of goat diversity in Europe and the Middle East. **Animal Genetics**, 37:327-334. **IF<sub>2007</sub>: 2,640**
70. Cappuccio I., Pariset L., **Ajmone-Marsan P.**, Dunner S., Cortes O., Erhardt G., Luhken G., Gutscher K., Joost S., Nijman I.J., Lenstra J.A., England P.R., Zundel S., Obexer-Ruff G., Beja-Pereira A., Valentini A. and the ECONOGENE Consortium, 2006. Allele frequencies and diversity of 27 single nucleotide polymorphisms within and across goat breeds. **Molecular Ecology Notes** 6:992-997. **IF<sub>2007</sub>: 1,257**

71. Pariset L, Cappuccio I, Joost S, D'Andrea M, Marletta D, **Ajmone Marsan P**, Valentini A and the ECONOGENE Consortium, 2006. Characterization of single nucleotide polymorphisms in sheep and their variation as evidence of selection. **Animal Genetics** 37:290-292. **IF<sub>2007</sub>: 2,640**
72. Pariset L, Cappuccio I, **Ajmone Marsan P**, Dunner S, Luikart G, England PR, Obexer-Ruff G, Peter C, Marletta D, Pilla F, Valentini A and the ECONOGENE Consortium (2006). Assessment of population structure by single nucleotide polymorphisms (SNPs) in goat breeds. **J Chromatogr B Analyt Technol Biomed Life Sci.** 833:117-120. **IF<sub>2007</sub>: 2,935**
73. Pariset L, Cappuccio I, **Ajmone Marsan P**, Bruford M., Dunner S, Cortes O., Erhardt G, Prinzemberg EM, Gutscher K, Joost S, Pinto-Juma G, Nijman IJ, Lenstra JA, Perez T, Valentini A and the ECONOGENE Consortium (2006). Characterization of 37 breed-specific single-nucleotide polymorphisms in sheep. **J. Hered.**, 97:531-534. **IF<sub>2007</sub>: 1,964**
74. Negrini, R., Milanese, E., Bozzi, R., Pellicchia, M., **Ajmone-Marsan, P.**, 2006. Tuscany autochthonous cattle breeds: an original genetic resource investigated by AFLP markers. **J. Animal Breeding and Genetics**, 123: 10-16. **IF<sub>2007</sub>: 1,038**
75. Papa, R., Troglio, M., **Ajmone-Marsan, P.**, Nonnis Marzano, F., 2005. An improved protocol for the production of AFLP<sup>TM</sup> markers in complex genomes by means of capillary electrophoresis. **J. Animal Breeding and Genetics**, 122: 62-68. **IF<sub>2007</sub>: 1,038**
76. Bertoni G, **Ajmone Marsan P.**, 2005. Safety risks for animals fed genetic modified (GM) plants. **Vet Res Commun. Suppl 2:** 13-18. **IF<sub>2007</sub>: 0,529**
77. Gorni C, Williams J.L., Heuven H.C.M., Negrini R, Valentini A, van Eijk M.J.T, Waddington D, Zevenbergen M., **Ajmone Marsan P.**, Peleman J.D, 2004. Application of AFLP® technology to radiation hybrid mapping. **Chrom. Res.** 12, 285-297. **IF<sub>2007</sub>: 3,469**
78. Jann O.C., E.M. Ibeagha-Awema, C. Özbeyaz, P. Zaragoza, J.L. Williams, **P. Ajmone Marsan**, J.A. Lenstra, K. Moazami-Goudarzi, G. Erhardt, 2004 Geographic distribution of haplotype diversity at the bovine casein locus, **Genetics Selection Evolution**, 36:243-257. **IF<sub>2007</sub>: 1,735**
79. Frezza D., M. Favaro, G. Vaccari, C. von-Holst, V. Giambra, E. Anklam, D. Bove, P.A. Battaglia, U. Agrimi, G. Brambilla, **P. Ajmone Marsan** and M. Tartaglia, 2003. A competitive polymerase chain reaction-based approach for the identification and semiquantification of mitochondrial DNA in differently heat-treated bovine meat and bone meal. **J of Food Protection**, 1:103-109. **IF<sub>2007</sub>: 1,886**
80. Ferrari M., A. Scalvini, M.N. Losio, A. Corradi, M. Soncini, E. Bignotti, E. Milanese, **P. Ajmone Marsan**, S. Barlati, D. Bellotti, M. Tonelli, 2003. Establishment and characterization of two new pig cell lines for use in virological diagnostic laboratories. **J. of Virological Methods**, 107: 205-212. **IF<sub>2007</sub>: 1,993**
81. Milanese E., **Ajmone Marsan P.**, Bignotti E., Losio M.N., Bernardi J., Chegdani F., Soncini M., Ferrari M., 2003. Molecular detection of cell line cross-contamination using Amplified Fragment Length Polymorphism DNA fingerprinting technology . **In Vitro Cell Dev Biol Anim.**, 39 124-130. **IF<sub>2007</sub>: 0,660**
82. Marchitelli C., M.C. Savarese, A. Crisà, A. Nardone, **P. Ajmone Marsan**, A.Valentini, 2003. Double muscling in Marchigiana beef breed is caused by a stop codon in the third exon of myostatin gene. **Mammalian genome**, 14: 392-395. **IF<sub>2007</sub>: 2,289**
83. Wiener P., D. Burton, A. **P. Ajmone Marsan**, S. Dunner, G. Mommens, I. Nijman, A. , Todellar C., Valentini, J.L. Williams, 2003. Signatures of selection? Patterns of microsatellite diversity on a chromosome containing a selected locus. **Heredity**, 90:350-358. **IF<sub>2007</sub>: 4,065**
84. Jann O.C., E.M. Prinzenberg, H. Brandt, J. Williams, **P. Ajmone Marsan**, P. Zaragoza, C. Özbeyaz, G. Erhardt, 2002. Intragenic haplotypes at the bovine CSN1S1 locus, **Archiv für Tierzucht-Archives of Animal Breeding** 45: 13-21. **IF<sub>2007</sub>: 0,612**

85. **Ajmone Marsan P.**, R. Negrini, E. Milanese, R. Bozzi, I.J. Nijman, J.B. Buntjer, A. Valentini, J.A. Lenstra, 2002. Genetic distances within and across cattle breeds as indicated by biallelic AFLP markers, **Animal Genetics**, 33, 280-286. **IF<sub>2007</sub>: 2,640**
86. Crepaldi P., Negrini R., Milanese E., Gorni C., Cicogna M., **Ajmone Marsan P.**, 2001. Diversity in five goat population of the Lombardy Alps: comparison of estimates obtained from morphometrics traits and molecular markers. **J. of Animal Breeding and Genetics**, 188: 173-180. **IF<sub>2007</sub>: 1,038**
87. **Ajmone Marsan P.**, R. Negrini, P. Crepaldi, E. Milanese, C. Gorni, A. Valentini, M. Cicogna, 2001. Assessing genetic diversity in Italian goat populations by AFLP<sup>®</sup> markers. **Animal Genetics**, 32: 281-288. **IF<sub>2007</sub>: 2,640**
88. **Ajmone Marsan P.**, A. Valentini, M. Cassandro, G. Vecchiotti Antaldi, G. Bertoni and M. Kuiper, 1997. AFLP markers for DNA fingerprinting in cattle. **Animal Genetics** 28: 418-426. **IF<sub>2007</sub>: 2,640**
89. Gandolfi F., Terqui M., Modena S., Brevini T.A.L., Ajmone Marsan P., Attal J., Foulon-Gauze and Courot M., 1996. Failure to produce transgenic offspring by intra-tubal insemination of gilts with DNA-treated sperm. **Reprod. Fertil. Dev.** 8:1055-1060. **IF<sub>2007</sub>: 2,805**

#### **Papers on ISI journals as member of a Consortium**

1. Edwards CJ, Ginja C, Kantanen J, Pérez-Pardal L, Tresset A, Stock F; **European Cattle Genetic Diversity Consortium**, Gama LT, Penedo MC, Bradley DG, Lenstra JA, Nijman IJ. Dual origins of dairy cattle farming--evidence from a comprehensive survey of European Y-chromosomal variation. **PLoS One** 2011 Jan 6;6(1):e15922.
2. Groeneveld LF, Lenstra JA, Eding H, Toro MA, Scherf B, Pilling D, Negrini R, Finlay EK, Jianlin H, Groeneveld E, Weigend S; **GLOBALDIV Consortium**. Genetic diversity in farm animals - a review. **Anim Genet.** 2010 May;41 Suppl 1:6-31.
3. C. Peter, M. Bruford, T. Perez, S. Dalamitra, G. Hewitt, G. Erhardt, and the **ECONOGENE Consortium**. Population structure of 57 European and Middle Eastern marginal sheep breeds **Journal of Heredity** 2007, 38:37-44. **IF<sub>2007</sub>: 1,964**
4. **European Cattle Genetic Diversity Consortium**,. Marker-assisted conservation of European cattle breeds: An evaluation. **Anim Genet.** 2006 37:475-481. **IF<sub>2007</sub>: 2,640**
5. Peter Ch, Prinzenberg EM, Erhardt G; **ECONOGENE Consortium**,. Null allele at the OarAE129 locus and corresponding allele frequencies in German sheep breeds. **Anim Genet.** 2005 36:92. **IF<sub>2007</sub>: 2,640.**

#### **Invited chapters in international books**

1. **Paolo AJMONE MARSAN**, Pier Sandro COCCONCELLI, Francesco MASOERO, Giacinto MIGGIANO, Lorenzo MORELLI, Daniele MORO, Filippo ROSSI, Paolo SCKOKAI, Erminio TREVISI Food for Healthy Living and Active Ageing in G. Riva, P. Ajmone-Marsan and C. Grassi (Eds), Active Ageing and Healthy Living, **Studies in Health Technology and Informatics Series, 2014** 203:32-43.
2. Andrea MINUTI, Vania PATRONE, Gianluca GIUBERTI, Giorgia SPIGNO, Amedeo PIETRI, Paola BATTILANI, **Paolo AJMONE MARSAN**. Nutrition and Ageing 112-121. in G. Riva, P. Ajmone-Marsan and C. Grassi (Eds), Active Ageing and Healthy Living, **Studies in Health Technology and Informatics Series 2014** 203:112-121.
3. **Ajmone Marsan P.**, Oldenbrok K., J. Han., 2007 Molecular markers to describe genetic diversity. In the State of the World's Animal Genetic Resources for Food and Agriculture. FAO 2007 publication edited by Barbara Rischkowsky and Dafydd Pilling, Rome, pp. 359-373.



4. A. Bagnato, H. Khatib, **P.Ajmone-Marsan**, F. Schiavini, E. Lipkin, 2006. Achievement of research in the field of molecular genetics. In Animal production and animal science worldwide WAAP book of the year 2006. Editors: A. Rosati, A.Tewolde and C. Mosconi, Wageningen Academic Publishers, pp. 37-48.

## **B. Plant genetics and biotechnology**

### **Papers on ISI journals**

1. P. Taberlet, N.E. Zimmermann, T. Englisch, A. Tribsch, R. Holderegger, N. Alvarez, H. Niklfeld, Z. Mirek, A. Moilanen, W. Ahlmer, **P. Ajmone Marsan**, E. Bona, M. Bovio, P. Choler, E. Cieślak, G. Coldea, L. Colli, V. Cristea, J.P. Dalmas, B. Frajman, L. Garraud, M. Gaudeul, L. Gielly, W. Gutermann, N. Jogan, A.A. Kagalo, G. Korbecka, P. Küpfer, B. Lequette, D.R. Letz, S. Manel, G. Mansion, K. Marhold, F. Martini, R. Negrini, F. Niño, O. Paun, M. Pellecchia, G. Perico, H. Piekos-Mirkowa, F. Prosser, M. Puscas, M. Ronikier, M. Scheuerer, G.M. Schneeweiss, P. Schönswetter, L. Schratt-Ehrendorfer, F. Schüpfer, A. Selvaggi, K. Steinmann, C. Thiel-Egenter, M. Van Loo, M. Winkler, T. Wohlgenuth, T. Wraber, F. Gugerli, IntraBioDiv Consortium. Genetic diversity is not congruent with species richness in alpine plants. **Ecology Letters** **2012**, 15: 1439-1448.
2. Natoli, C. Gorni, F. Chegdani, **P. Ajmone Marsan**, C. Colombi, C. Lorenzoni, A. Marocco, 2002. Identification of QTLs associated with sweet sorghum quality. **Maydica** 47: 311-322. **IF<sub>2006</sub>: 0,569**
3. **Ajmone Marsan P.**, C. Gorni, A. Chitto, R. Redaelli, R. van Vijk, P. Stam, M. Motto, 2001. Identification of QTLs for grain yield and grain-related traits of maize (*Zea mays* L.) using an AFLP map, different testers, and cofactor analysis. **Theor Appl Genet** 102, 230-243. **IF<sub>2007</sub>: 3,137**
4. Castiglioni P., **P. Ajmone Marsan**, van Wijk R. and M. Motto, 1999. AFLP markers in a molecular linkage map of maize: codominant scoring and linkage group distribution. **Theor. Appl. Genet.**, 99: 425-431. **IF<sub>2007</sub>: 3,137**
5. Pejic I., **P. Ajmone Marsan**, M. Morgante, V. Kozumplick, P. Castiglioni, G. Taramino, M. Motto, 1998. Comparative analysis of genetic similarity among maize inbred lines detected by RFLPs, RAPDs, SSRs, and AFLPs. **Theor. Appl. Genet.** 97: 1248-1255. **IF<sub>2007</sub>: 3,137**
6. **Ajmone Marsan P.**, Castiglioni P., Fusari F., Kuiper M. and M. Motto, 1997. Genetic diversity and its relationship to hybrid performance in maize as revealed by RFLP and AFLP markers. **Theor. Appl. Genet.** 96:219-227. **IF<sub>2007</sub>: 3,137**
7. **Ajmone Marsan P.**, Monfredini G., Brandolini A., Melchinger A.E., Garay G. and M. Motto, 1996. Identification of QTL for grain yield in an elite hybrid of maize: repeatability of map position and effects in independent samples derived from the same population. **Maydica**, 41: 49-57. **IF<sub>2006</sub>: 0,569**
8. **Ajmone Marsan P.**, G. Monfredini, W. F. Ludwig, A.E. Melchinger, P. Franceschini, G. Pagnotto and M. Motto, 1995. In an elite cross of maize a major Quantitative Trait Locus controls one fourth of the genetic variation for grain yield. **Theor. Appl. Genet.** 90:415-424. **IF<sub>2007</sub>: 3,137**
9. Lupotto E., Cattaneo M., Borrelli G.M., Qiao Y.M., **Ajmone Marsan P.**, Locatelli F., Della Torre A., Patrucco E., 1995. Plant regeneration from protoplasts of wheat (*Triticum aestivum* L.) and tools for genetic transformation in *Triticum* species. **Cereal Res. Comm.** 23 (3): 315-324. **IF<sub>2007</sub>: 1,190**
10. **Ajmone Marsan P.**, G. Monfredini, W.F. Ludwig, A. E. Melchinger, G. Pagnotto and M. Motto, 1994. Identification of genomic regions affecting plant height and their relationship with grain yield in an elite maize cross. **Maydica** 39: 133-139. **IF<sub>2006</sub>: 0,569**
11. **Ajmone Marsan P.**, G. Egidy, G. Monfredini and M. Motto, 1993. RAPD markers in maize genetic analysis. **Maydica**, 38: 259-264. **IF<sub>2006</sub>: 0,569**

12. **Ajmone Marsan P.**, C. Livini, M.M. Messmer, A.E. Melchinger and M. Motto, 1992. Cluster analysis of RFLP data from related maize inbred lines of the BSSS and LSC heterotic groups and comparison with pedigree data. **Euphytica**, 60: 139-148. **IF<sub>2007</sub>: 1,050**
13. Livini C., **P. Ajmone Marsan**, A. E. Melchinger, M. M. Messmer and M. Motto, 1992. Genetic diversity of maize inbred lines within and among heterotic groups revealed by RFLPs. **Theor. Appl. Genet.** 84: 17-25. **IF<sub>2007</sub>: 3,137**
14. **Ajmone Marsan P.**, Lupotto E., Locatelli F., Quiao Y. K., Cattaneo M.,1993. Analysis of stable events of transformation in wheat via PEG-mediated DNA uptake into protoplasts. **Plant Science**, 93: 85-94. **IF<sub>2007</sub>: 1,795**
15. Rizzi E., C. Balconi, **P. Ajmone Marsan**, F. Salamini, R. Thompson, M. Motto, 1992. Growth requirements of the o-6 mutant and its relationship with the gene encoding the RIP protein b-32 of maize endosperm. **Maydica**, 37: 275-281. **IF<sub>2006</sub>: 0,569**
16. Rotino G. L., D. Perrone, **P. Ajmone Marsan** and L. Lupotto, 1992. Transformation of Solanum Integrifolium Poir via Agrobacterium Tumefaciens: Plant regeneration and progeny analysis. **Plant Cell Reports** 11:11-15. **IF<sub>2007</sub>: 1,974**
17. Hartings H., N. Lazzaroni, **P. Ajmone Marsan**, A. Aragay, R. Thompson, F. Salamini, N. Di Fonzo, J. Palau and M. Motto, 1990. The b-32 protein from maize endosperm: characterization of genomic sequences encoding two alternative central domains. **Plant Molecular Biology** 14: 1031-1040. **IF<sub>2007</sub>: 3,847.**

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