

**Personal Details**

Place of birth    Novara, Italy  
Date of birth    November 14, 1961

**Education and Qualifications**

- ) **May 2000** Master in Management of technology, University of Milan
- ) **1986. Laurea** in Animal Science with full marks and honours, University of Milan Faculty of Veterinary Science.
- ) **Aug. 1989 - May 1990.** Graduate non degree student at the Department of Animal Science Cornell University, NY, USA.

**Positions held in National Institutions**

**2001 – Present** - Associate Professor in Animal Breeding and Genetics at the Department of Health, Animal Science and Food Safety of the Veterinary Medicine Faculty of the University of Milan, Italy;  
**1991 – 2001** Senior Research Fellow in Animal Breeding and Genetics at the Veterinary Medicine Faculty of the University of Milan, Italy;  
**1990 – 1991** Geneticist at the Research and Development Office of the National Breeders Association of Italian Friesian, Cremona, Italy.

**Positions in Foreign institutions**

- ) **August 1989/ May 1990 and July / September 1992** - Visiting scientist at the Cornell University, Ithaca, NY, USA;
- ) **February / September 1998** Scientist at the Department of Animal Science at the University of Guelph, Guelph ON, Canada;
- ) **1998-2001** “Associate Graduate Faculty” at the “Department of Animal and Poultry Science” of the “University of Guelph, ON, Canada.

**Research activities**

At present his main research field deals with the identification of genes and QTLs for traits of economic importance (traits related to animal production animal health and welfare and correlated to food health and safety) in dairy cattle populations and with application in breeding programs of marker assisted selection (MAS), of gene assisted selection (GAS) and genomic selection in livestock. Part of his research activity is devoted to national and international optimization of genetic evaluation and selection programs, mainly in dairy cattle. He also has developed research in the field of in situ conservation of endangered livestock populations.

He is coordinating the molecular genetics and Bioinformatics facility of his Department, equipped for DNA fragment analysis, Genome Wide Association Analysis, linkage analysis, and SNP genotyping (Illumina iScan) whole sequence data analysis (Illumina GAIIx). He is also coordinating the Animal Genetic Sector of the Genomic and Bioinformatics Platform of the University of Milan and of *Filarete Foundation*. His research group includes 1 senior researcher, 1 senior technician, 1 senior scientist, 3 postdoc, and 2 Phd Students.

### **International and National Collaborations and Activities**

- ) International active research collaborations: University of Edinburgh - Roslin (UK), MTT Finland (Finland), Aarhus University (Denmark), Fundacio Privada Centre de Regulacio Genomica (Spain), Universitat Autonoma de Barcelona (Spain), EMBL-EBI (UK), Hebrew University of Jerusalem Israel (Israel), Universitetet for Miljo og Biovitenskap (Norway), Biosciences KTN (UK), Dept. Animal Science, North Carolina State University (USA), Dept. of Animal Science, University of Wisconsin Madison (USA);
- ) National active research collaboration: University of Bologna University of Palermo, National Association of Brown Breeders, Regional Association of Farmers.
- ) Project Evaluator in various panels for the European Community as expert;
- ) Secretary of the cattle group for the Farm Animal Breeding and Reproduction European Industrial Platform
- ) Italian Representative in the Animal Task Force European effort.

### **Coordination and scientific responsibility in ongoing research projects:**

- ) Contractor in Project “QUANTOMICS n. 222664-2” of the 7th FW “From sequence to consequence – tools for the exploitation of livestock genome”. Funds received: 1.200 K€. The WP has the objective to develop and apply innovative genomic selection tools in dairy cattle and in poultry (e.g. using whole genome sequence data and high density SNP genotyping), to identify genes related to health traits, and to develop and apply innovative experimental designs. The WP that he coordinates involves 8 academic partners + 3 Breeding Companies (Small - Medium Enterprises: ANARB Italy, Viking Genetics, Denmark, and Qualitas AG, Swiss) and 1 large breeding industry (AVIAGEN). His group is deeply involved in other WPs mapping structural variation in cattle (e.g. CNV from NGS and chip genotype) also involving other breeding companies.

### **Coordination and scientific responsibility in terminated research projects:**

- ) Scientific Coordinator of project LATTOMEGA “Acidi Grassi nel latte: prospettive di miglioramento genetico nei bovini”, funded by Regione Lombardia, coordinated dall’ARAL. funds: 63KEuro.
- ) National coordinator of the project PRIN 2007 of the Ministry of University Instruction and Research “Indicators of mastitis resistance for selection with quantitative and genomic approach in cattle and in sheep and goat” Funds from MIUR 108K€.
- ) Scientific coordinator of the Sub-Unità UNIMI in the "dairy cattle group" of project “Ricerca e innovazione nelle attività di miglioramento genetico animale mediante tecniche di genetica molecolare per la competitività del sistema zootecnico nazionale – SELMOL” D.M. 11/7303/07 funded by the Ministry of Agriculture Funds: 195K€ Objective: development of genomic selection in dairy cattle breeds and identification of genes linked to productive traits.
- ) Coordinator of the project “Identificazione di QTL per resistenza alla mastite e per caratteristiche nutrizionale del latte in popolazioni di bovini da latte” (QuaLAT). The project funded by the “Regione Lombardia” agency, develop at international level with the involvement of foreign University (the Hebrew Jerusalem University Israel), of breeding industry and on breeders associations.

- ) Team leader (Contractor) of one of the five research units of the EU funded project "Quantitative Trait Loci Affecting Milk Production: Mapping and Utilization for Marker Assisted Selection in Dairy and Dual Purpose Cattle" (BovMAS- QLK-2001-02379)
- ) Team leader of of unit 4 of workpackage 2 FIRB funded project Prot. RBNE01SFXV "Molecular diagnostic systems for the identification and the analysis of genetics discriminant of agricultural, zootechnical and environmental importance.
- ) Italian partner in the project "Identifying genes controlling economically important traits in dairy cattle", funded by the Babcock Institute della University of Wisconsin-Madison.
- ) Scientific leader for the project "La selezione per caseine vere finalizzata all'incremento di valore aggiunto per le filiere dei prodotti lattiero caseari della montagna" (BruCA) funded by the "Regione Lombardia agency and coordinated by the Regional Breeders association.
- ) Scientific leader for the project "Razza e formaggio: identificazione di parametri per una loro diversificazione" funded by the ministry of agriculture and coordinated by the Brown breeders association.
- ) Collaboration in the project funded by the European Union "Code of Good Practice for European Farm Animal Breeding and Reproduction (CODE-EFABAR, FOOD-CT-2003-506506).
- ) Scientific responsibility in a working unit of the EU funded project "Sustainable European Animal Breeding and Reproduction" (SEFABAR- QLG7-CT-2000-01368).
- ) Team leader (contractor) in the EU funded project "The future developments in farm animal breeding and reproduction and their ethical, legal and consumer's implications" (EC-ELSA- BIO4-CT98-0055).

#### **Participation to international PhD committee**

- ) **2000-2003** Co-promotor of a PhD candidate at the University of Wageningen.
- ) **2003-2006** International advisor for a PhD candidate at the "Universit  do Porto" (Portugal);
- ) **1998 - 2000** Co-promotor of a PhD candidate and at the University of Guelph, Canada.

#### **Participation to national PhD committee**

- ) Currently promoter of 2 PhD candidate at the Research Doctorate in Animal Production of the University of Milan.
- ) Promoter of other 5 PhD Students successfully graduated.

#### **Activity in Committee of the Ministry of Agriculture**

- ) Member of the Technical Committee of the Italian Brown Breeders Association
- ) Member the Central Technical Committee of the national milk recording agency.

#### **Editorial Activity**

- ) 2007 - 2009: Deputy Sector Editor of EAAP Journal "Animal".
- ) 2002 - 2009: Sector Editor of "Italian Journal of Animal Science".
- ) Reviewer for: Journal of Dairy Science, Journal of Dairy Research, Theriogeneology, Italian Journal of Animal Science, BMC Genetics, Animal Genetics.

### **Scientific Association**

- ) Member of Associazione Scientifica di Produzione Animale.
- ) Member of American Dairy Science Association.

### **Language skills**

Very good written and oral English; Basic French and Spanish;

### **RECENT PUBLICATIONS in Peer Reviewed Journals**

E. Frigo, A. B. Samorè, D. Vicario, A. Bagnato, O. Pedron, 2013. Heritabilities and genetic correlations of body condition score and muscularity with productive traits and their trend functions in Italian Simmental cattle. *Italian Journal of Anim. Sci.* e40  
DOI: 10.4081/ijas.2013.e40.

V. Russo, L. Fontanesi, M. Dolezal, E. Lipkin, E. Scotti, P. Zambonelli, S. Dall'Olio, D. Bigi, R. Davoli, F. Canavesi, I. Medugorac, M. Föster, J. Sölkner, F. Schiavini, A. Bagnato, M. Soller (2012). A whole genome scan for QTL affecting milk protein percentage in Italian Holstein cattle, applying selective milk DNA pooling and multiple marker mapping in a daughter design. *ANIMAL GENETICS*, vol. 43, p. 72-86, ISSN: 0268-9146, doi: 10.1111/j.1365-2052.2012.02353.x

A.B. Samorè, F. Canavesi, A. Rossoni, A. Bagnato (2012). Genetics of casein content in Brown Swiss and Italian Holstein dairy cattle breeds. *ITALIAN JOURNAL OF ANIMAL SCIENCE*, vol. 11, p. 196-202, ISSN: 1594-4077, doi: 10.4081/2431

T. Luan, J.A. Woolliams, J. Odegård, M. Dolezal, S.I. Roman-Ponce, A. Bagnato, T.H. Meuwissen (2012). The importance of identity-by-state information for the accuracy of genomic selection. *GENETICS SELECTION EVOLUTION*, ISSN: 0999-193X, doi: 10.1186/1297-9686-44-28

K.A. Gray, C. Maltecca, A. Bagnato, M. Dolezal, A. Rossoni, A.B. Samore, J.P. Cassady (2012). Estimates of marker effects for measures of milk flow in the Italian brown Swiss dairy cattle population. *BMC VETERINARY RESEARCH*, vol. 8, ISSN: 1746-6148, doi: 10.1186/1746-6148-8-199

Bagnato A, Rosati A (2012). From the Editors Animal selection: The genomics revolution. In: *Animal Frontiers* (ISSN - 2160-6056). vol. 2(1), p. 1-2, doi: 10.2527/af.2011-0033

K.A. Gray, F. Vacirca, A. Bagnato, A.B. Samoré, A. Rossoni, C. Maltecca (2011). Genetic evaluations for measures of the milk-flow curve in the Italian Brown Swiss population. *JOURNAL OF DAIRY SCIENCE*, vol. 94, p. 960-970, ISSN: 0022-0302, doi: 10.3168/jds.2009-2759

A.B. Samoré, S.I. Román-Ponce, F. Vacirca, E. Frigo, F. Canavesi, A. Bagnato, C. Maltecca (2011). Bimodality and the genetics of milk flow traits in the Italian Holstein-

Friesian breed. JOURNAL OF DAIRY SCIENCE, vol. 94, p. 4081-4089, ISSN: 0022-0302, doi: 10.3168/jds.2010-3611

R. Tal-Stein, L. Fontanesi, M. Dolezal, E. Scotti, A. Bagnato, V. Russo, F. Canavesi, A. Friedmann, M. Soller, E. Lipkin (2010). A genome scan for quantitative trait loci affecting milk somatic cell score in Israeli and Italian Holstein cows by means of selective DNA pooling with single- and multiple-marker mapping. JOURNAL OF DAIRY SCIENCE, vol. 93, p. 4913-4927, ISSN: 0022-0302, doi: 10.3168/jds.2010-3254

A.B. Samoré, R. Rizzi, A. Rossoni, A. Bagnato (2010). Genetic parameters for functional longevity, type traits, somatic cell scores, milk flow and production in the Italian Brown Swiss. ITALIAN JOURNAL OF ANIMAL SCIENCE, vol. 9, p. 145-152, ISSN: 1828-051X, doi: 10.4081/ijas.2010.e28

L. Fontanesi, E. Scotti, F. Schiavini, V. La Mattina, A. Bagnato, V. Russo (2010). DGAT1 p.K232A polymorphism in dairy and dual purpose Italian cattle breeds. ITALIAN JOURNAL OF ANIMAL SCIENCE, vol. 9, p. 79-82, ISSN: 1594-4077, doi: 10.4081/ijas.2010.e16

L. Fontanesi, E. Scotti, L. Buttazzoni, S. Dall'Olio, A. Bagnato, D.P. Lo Fiego, R. Davoli, V. Russo (2010). Confirmed association between a single nucleotide polymorphism in the FTO gene and obesity-related traits in heavy pigs. MOLECULAR BIOLOGY REPORTS, vol. 37, p. 461-466, ISSN: 0301-4851, doi: 10.1007/s11033-009-9638-8