



**Alain Murigneux**

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**Current position**

***Limagrain Verneuil Holding***

- ✓ Direction of Genetic Resources and Prebreeding
  - Inventory, maintaining and characterization of genetic resources
  - Pre-breeding

Experience: (date, positions)

- 1997-2008 : ***Biogemma*** : Coordination of Maize and Wheat Genomic programs :
  - Drought stress, Yield, Quality, Disease resistance,
  - SNP discovery, Association mapping, Reverse genetics, QTL cloning
  - Coordination of Wheat and Maize Genomic GENOPLANTE programs (1999-2003)
- 1991-2000: ***Limagrain*** - **Head of the Molecular Marker Breeding group.**
  - Germplasm diversity analysis
  - QTL mapping and Marker assisted selection
- 1989-1993: **PhD Thesis** / Collaboration between Limagrain and INRA : Mapping of QTL controlling Maize in vitro doubled haploid production.
- 1988-1989: ***Ferry Morse Seed Company*** (California):
  - DH production in vegetable species.
  - Development of a kit based on monoclonal antibodies for the diagnostic of phytopathogen bacteria in tomato seeds.

**Selected scientific communications**

**Murigneux A.**, Bentolila S., Hardy T., Baud S., Guitton C., Jullien H., Ben Tahar S., Freyssinet G. and Beckert M. (1994) *Genotype variation of quantitative trait loci controlling in vitro androgenesis in maize.* Genome 37 : 970-976

Bernardo R., **Murigneux A.** and Karaman Z. (1996) *Marker based estimates of identity by descent and likeness in state among maize inbreds* Theor Appl Genet 93 : 262-267

Falque M, Decousset L, Dervins D, Jacob AM, Joets J, Martinant JP, Raffoux X, Ribiere N, Ridet C, Samson D, Charcosset A, **Murigneux A.** (2005) *Linkage mapping of 1454 new maize candidate gene loci* Genetics 170:1957-1966

Anna Karkonen, **Alain Murigneux**, Jean-Pierre Martinant, Elodie Pepey, Christophe Tatout, Bernard J Dudley, Stephen C Fry **(2005)** *UDP-Glucose dehydrogenases of maize: a role in cell wall pentose biosynthesis* Biochemical Journal : 391 (2);409-415

Catherine Ravel, Sébastien Praud, **Alain Murigneux**, Laurent Linossier, Mireille Dardevet, François Balfourier, Philippe Dufour, Dominique Brunel and Gilles Charmet **(2006)** *Identification of Glu-B1-1 as a candidate gene for the quantity of high-molecular-weight glutenin in bread wheat (Triticum aestivum L.) by means of an association study* Theoretical and Applied Genetics 112(4):738-43

Martin A, Lee J, Kichey T, Gerentes D, Zivy M, Tatout C, Dubois F, Balliau T, Valot B, Davanture M, Tercé-Laforgue T, Quilleré I, Coque M, Gallais A, Gonzalez-Moro MB, Bethencourt L, Habash DZ, Lea PJ, Charcosset A, Perez P, **Murigneux A**, Sakakibara H, Edwards KJ, Hirel B. **(2006)** *Two cytosolic glutamine synthetase isoforms of maize are specifically involved in the control of grain production.* Plant Cell 18(11):3252-74

Guillaumie S, San-Clemente H, Deswarte C, Martinez Y, Lapierre C, **Murigneux A**, Barrière Y, Pichon M, Goffner D. **(2007)** *MAIZEWALL. Database and developmental gene expression profiling of cell wall biosynthesis and assembly in maize.* Plant Physiol : 143(1):339-63

Quraishi UM, Abrouk M, Bolot S, Pont C, Throude M, Guilhot N, Confolent C, Bortolini F, Praud S, **Murigneux A**, Charmet G, Salse J. **(2009)** *Genomics in cereals: from genome-wide conserved orthologous set (COS) sequences to candidate genes for trait dissection.* Funct Integr Genomics. ;9(4):473-84.

Jean Louis Prioul , Valérie Mechin, Philippe Lessard , Claudine Thévenot, Mike Grimmer, Sophie Chateau-Joubert, Steve Coates, Hans Hartings, Monica Kloiber-Maitz , **Alain Murigneux**, Xavier Sarda , Catherine Damerval, Keith J Edwards **(2008)** *A joint transcriptomic, proteomic and metabolic analysis of maize endosperm development and starch filling* Plant Biotechnol J.: 6(9):855-69.

Throude M, Bolot S, Bosio M, Pont C, Sarda X, Quraishi UM, Bourgis F, Lessard P, Rogowsky P, Ghesquiere A, **Murigneux A**, Charmet G, Perez P, Salse **(2009)** *J. Structure and expression analysis of rice paleo duplications.* Nucleic Acids Res : 37(4):1248-59.

Manicacci D, Camus-Kulandaivelu L, Fourmann M, Arar C, Barrault S, Rousselet A, Feminias N, Consoli L, Francès L, Méchin V, **Murigneux A**, Prioul JL, Charcosset A, Damerval C. **(2009)** *Epistatic interactions between Opaque2 transcriptional activator and its target gene CyPPDK1 control kernel trait variation in maize.* Plant Physiol. : 150(1):506-20