

# Anaïs Baudot

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Married, 1 child

## Research experience

- October 2010 – CNRS researcher, Luminy Institute of Mathematics, Marseilles, France  
[Interaction Networks and Multifactorial Diseases](#)

### Post-doctoral work

- January 2008 – July 2010 Spanish National Cancer Research Center, Madrid, Spain. Juan de la Cierva Fellowship.  
[Project: Systems-level interpretation of oncogenomics data](#)  
Alfonso Valencia Lab

### PhD work

- January 2003 – July 2007 Developmental Biology Institute of Marseilles-Luminy , Marseilles, France.  
[Title: Bioinformatic study of interactomes: the protein cellular functions](#)  
PhD Advisors: Christine Brun

### Probation periods

- February 2002 Technological Advances for Genomics and Clinics, Marseilles, France.  
[Study of alternative RNA: prediction by Ensembl database, impact on DNA chips](#)  
Advisor: Pascal Hingamp
- March 2001 Population-Environment Laboratory, Marseilles, France.  
[Genetic pollution impact on wildlife, bibliographic research.](#)  
Advisor: Bernard Brun

## Education

- June 2007 PhD defense. Jury: Céline Brochier, Christine Brun, François Payre, Vincent Schächter, Denis Thieffry, Alain Viari and Marc Vidal.
- 2003 – 2007 PhD Student. Bioinformatics. Université de la Méditerranée, Campus de Luminy, Marseilles, France.
- 2003 Master 2<sup>nd</sup> year. Bioinformatics, Structural Biology and Genomics. Université de la Méditerranée, Campus de Luminy, Marseilles, France

- 2002 Master 1<sup>st</sup> year. Cellular Biology and Physiology, speciality : Genetics. Université de la Méditerranée, Campus de Luminy, Marseilles, France
- 2001 Licence, 3<sup>d</sup> year. Cellular Biology and Physiology. Université Paul Cézanne, Campus de Saint-Jérôme, Marseilles, France
- 2000 Licence, 2<sup>nd</sup> year. Life and Earth Sciences. Université de Provence, Campus de Saint-Charles, Marseilles, France
- 1999 Licence, 1<sup>st</sup> year. Life and Earth Sciences. Université Paul Cézanne, Campus de Montperrin, Aix-en-Provence, France

## Publications

### Peer-reviewed

- Baudot A, de la Torre V, Valencia A. Mutated genes, pathways and processes in tumours. *Embo Report*, 2010 Sep.
- Glaab E\*, Baudot A\*, Krasnogor N, Valencia A. Extending pathways and processes using molecular interaction networks to analyse cancer genome data. Accepted at Recomb Computational Cancer Biology Workshop, June 24<sup>th</sup>-25<sup>th</sup>, 2010, Oslo, Norway.
- Pilot Storck F, Chopin E, Rual J, Baudot A, Dobrokhotov P, Robinson-Rechavi M, et al. Interactome Mapping of PI3K-mTOR Pathway Identifies DEAF1 as a New GSK3 Interactor. *Molecular and Cellular Proteomics*. 2010 Apr 5.
- Glaab E\*, Baudot A\*, Krasnogor N, Valencia A. TopoGSA: Gene sets and functional process analysis of network topological properties. *Bioinformatics*. 2010 May 1;26(9):1271-2.
- Baudot A, Angelelli J.B, Guénoche A, Jacq B, Brun C. Defining a Modular Signalling Network from the Fly Interactome. *BMC Syst Biol*. 2008 May 19;2(1):45.
- Angelelli J.B, Baudot A, Brun C, Guénoche A. Two local dissimilarity measures for weighted graphs with application to protein interaction networks. *Advances in Data Analysis and Classification*. 2008, 2:3-16.
- Baudot A, Martin D, Mouren P, Chevenet F, Guenoche A, Jacq B, Brun C. PRODISTIN Web Site: a tool for the functional classification of proteins from interaction networks. *Bioinformatics*. 2006 Jan 15;22(2):248-50.
- Baudot A, Jacq B, Brun C. 2004. A scale of functional divergence for yeast duplicated genes revealed from analysis of the protein-protein interaction network. *Genome Biology*, 2004 5:R76

### Reviews

- Baudot A, Gómez-López G, Valencia A. Translational disease interpretation with molecular networks. *Genome Biology*, 2009, 10:221.
- Baudot A, Real F.X, Izarzugaza J.M, Valencia A. From cancer genomes to cancer models: bridging the gaps. *Embo Report*, 2009 Apr;10(4):359-66

- Baudot A and Brun C. 2008. Outils bioinformatiques et ressources pour l'exploitation des données d'interactions protéine-protéine. *Spectra Analysis*. 263: 40-45.

### Book chapters

- Baudot A, Souiai O, Brun C. 2010. Network analysis and protein function prediction with the PRODISTIN Web Site. *Bacterial Networks – Methods Mol Biol*. Toussaint A, Van Helden J and Thieffry D (Eds), accepted.
- Brun C, Baudot A, Guénoche A, Jacq B. 2004. The use of protein-protein interaction networks for genome wide protein function comparisons and predictions. *Principles and Practices - Methods in Proteome and Protein Analysis*. R.M. Kamp, J.J. Calvete, and T. Choli-Papadopoulou (Eds.), Springer-Verlag Berlin Heidelberg, p103-124.
- Brun C, Baudot A, and Jacq B. 2004. Functional classification of proteins based on protein interaction data. *Encyclopedia of Genomics, Proteomics and Bioinformatics*. M. Dunn, L. Jorde, P. Little, S. Subramaniam (Eds), John Wiley & Sons Limited, 3.3.

**Reviewer for** *Bioinformatics, Genomics, BMC Cancer, BMC Systems Biology, BMC bioinformatics*

### Conferences and workshops

- 4th EMBO Conference, From Functional Genomics to Systems Biology, 15-18 novembre 2008. EMBL Heidelberg, Germany. Comprehensive analysis of cancer mutated genes reveals common and specific functional annotations among tumor types (Poster).
- Targeting and Tinkering with Interaction Networks. 14-16 avril 2008. Barcelona, Spain. (Poster).
- Société française de Génétique (SFG). 13 -15 novembre 2006, Paris, France. Signaling modules and communications in the fly interactome network (Oral communication).
- Interactome Networks. 29 août - 3 septembre 2006. Hinxton, UK. Modules and communications in the *Drosophila* signaling network (Poster).
- Journée Ouverte en Biologie, Informatique et Mathématiques (JOBIM). 5-7 juillet 2006, Lyon, France. Interactome analysis of *Drosophila* signaling networks reveals their modular architecture and a high level of functional crosstalks (Poster). Selected for short oral presentation. Prize of the best poster.
- European Conference on Computational Biology (ECCB'2005). 28 septembre - 1<sup>er</sup> octobre 2005, Madrid, Espagne. A study of the *drosophila* signalling pathways through the analysis of interaction networks (Poster). Webdistin: a Web tool for the functional classification of proteins from interaction networks (Poster).
- '19ème festival de la mouche'. 20-24 octobre 2004, Imbours, France. Functional classification of *drosophila* proteome from the protein-protein interaction network (Oral communication).
- Journée Ouverte en Biologie, Informatique et Mathématiques (JOBIM). 28-30 juin 2004, Montréal, Canada. A scale of functional divergence for yeast duplicated genes revealed from the analysis of protein-protein interaction network (Poster). Selected for short oral presentation.

- European Conference on Computational Biology (ECCB'2003). 27-30 septembre 2003, Paris, France. Evolution of the function of the duplicated genes from an interaction network point of view (Poster).

### **Informatics and Bioinformatics Skills**

- GNU/Linux, Windows
- Perl, Python, R (statistics, microarray limma analysis, bioconductor packages)

### **Teaching Experience**

- 2003-2006 Teaching Informatics and Bioinformatics to undergraduate students. Université de la Méditerranée, Marseilles, France.
- CIES formation

### **Languages**

- French (native)
- English (fluent)
- Spanish (fluent)