Hervé Isambert
Chef d'équipe
Tel: +33 1 56 24 64 74

Voir la page de l’equipe Isambert here
Voir notre page en anglais

Our on-going research concerns the reconstruction and analysis of biological networks at different scales and their implication on the organisms’ susceptibility to genetic diseases such as cancer. We develop information-theoretic methods and machine learning tools to infer and analyze causal graphical models from biological and clinical data. We also have a keen interest in the stricking consequences of whole genome duplication, both on tumor resistance to drug treatments and on long-term evolution of species diversity.

Key publications

Year of publication 2019

Beber A, Taveneau C, Nania M, Tsai FC, Di Cicco A, Bassereau P, Lévy D, Cabral JT, Isambert H, Mangenot S*, Bertin A* (2019 Jan 24)
Membrane reshaping by micrometric curvature sensitive septin filaments
Nature communications : DOI : 10.1038/s41467-019-08344-5

Year of publication 2015

Param Priya Singh, Jatin Arora, Hervé Isambert (2015 Jul 17)
Identification of Ohnolog Genes Originating from Whole Genome Duplication in Early Vertebrates, Based on Synteny Comparison across Multiple Genomes.
PLoS computational biology : e1004394 : DOI : 10.1371/journal.pcbi.1004394

Year of publication 2014

Param Priya Singh, Séverine Affeldt, Giulia Malaguti, Hervé Isambert (2014 Jul 31)
Human dominant disease genes are enriched in paralogs originating from whole genome duplication.
PLoS computational biology : e1003754 : DOI : 10.1371/journal.pcbi.1003754

Year of publication 2012

Param Priya Singh, Séverine Affeldt, Ilaria Cascone, Rasim Selimoglu, Jacques Camonis, Hervé Isambert (2012 Apr 12)
On the expansion of "dangerous" gene repertoires by whole-genome duplications in early vertebrates.
Cell reports : 1387-98 : DOI : 10.1016/j.celrep.2012.09.034

Year of publication 2009

Bastien Cayrol, Claude Nogues, Alexandre Dawid, Irit Sagi, Pascal Silberzan, Hervé Isambert (2009 Oct 14)
A nanostructure made of a bacterial noncoding RNA.
Journal of the American Chemical Society : 17270-6 : DOI : 10.1021/ja906076e

Year of publication 2008

Kirill Evlampiev, Hervé Isambert (2008 Jul 16)
Conservation and topology of protein interaction networks under duplication-divergence evolution.
Proceedings of the National Academy of Sciences of the United States of America : 9863-8 : DOI : 10.1073/pnas.0804119105