

**Dementhon Karine, Ph.D**

Date of Birth: July 14<sup>th</sup>, 1975 in Mont-de-Marsan (40) France

Affiliation: UMR-CNRS 5234

Laboratory of Fundamental Microbiology and Pathogenicity

University of Bordeaux

E-mail: [karine.dementhon@u-bordeaux.fr](mailto:karine.dementhon@u-bordeaux.fr)

URL: [http://www.mfp.cnrs.fr/mfp/team\\_pc.php](http://www.mfp.cnrs.fr/mfp/team_pc.php)



**Academic History:**

1999 Master in Biology and Health, University of Bordeaux II, France

2003 PhD in Biology and Health, University of Bordeaux II, France

2012 PhD student Supervision Qualification (ADT), University of Bordeaux II, France

**Professional/Scientific Career:**

2003-2006 Postdoctoral Fellow Department of Plant & Microbial Biology,  
University of California, Berkeley, USA

2006-2007 Postdoctoral Fellow Laboratory of Functional Genomics of  
Trypanosomatides, University of Bordeaux II, France

2007-present Assistant Professor Laboratory of *Candida* and pathogenicity,  
University of Bordeaux, France

**Research Area/ Interests:**

We are interested in the interaction between *Candida* yeasts of medical interest and phagocytic cells at the cellular and molecular levels. We use a combination of molecular biology, cellular biology, genetics, genomics and proteomics to investigate this topic.

**Publications**

1- Navarro-Arias MJ, Defosse TA, **Dementhon K**, Csonka K, Mellado-Mojica E, Dias Valério A, González-Hernández RJ, Courdavault V, Clastre M, Hernández NV, Pérez-García LA, Singh

DK, Vizler C, Gácsér A, Almeida RS, Noël T, López MG, Papon N, and Mora-Montes HM. (2016) Disruption of protein mannosylation affects *Candida guilliermondii* cell wall, immune sensing and virulence. *Frontiers Microbiology* 2;7:1951

2- Sabra A, Bessoule JJ, Atanasova-Penichon V, Noël T, and **Dementhon K**. (2014) Host-pathogen interaction and signaling molecule secretion are modified in the *dpp3* knockout mutant of *Candida lusitaniae*. *Infection Immunity* 82(1):413-22

3- Gabriel F, Accoceberry I, Bessoule JJ, Salin B, Lucas-Guérin M, Manon S, **Dementhon K**, and Noël T. (2014) A Fox-2 dependent fatty acid  $\beta$ -oxidation pathway coexists both in peroxisomes and mitochondria of the ascomycete yeast *Candida lusitaniae*. *PLoS One* 9(12):e114531

4- Gabriel F, Sabra A, El-Kirat-Chatel S, Pujol S, Fitton-Ouhabi V, Brèthes D, **Dementhon K**, Accoceberry I, and Noël T. (2014) Deletion of the uracil permease gene confers cross-resistance to 5-fluorouracil and azoles in *Candida lusitaniae* and highlights antagonistic interaction between fluorinated nucleotides and fluconazole. *Antimicrobial Agents and Chemotherapy* 58(8):4476-85

5- **Dementhon K**, El-Kirat-Chatel S, and Noël T. (2012) Development of an *in vitro* model for the multi-parametric quantification of the cellular interactions between *Candida* yeasts and phagocytes. *PLoS One* 7(3):e32621.

6- El-Kirat-Chatel S, **Dementhon K**, and Noël T. (2011) A two-step cloning-free PCR-based method for the deletion of genes in the opportunistic pathogenic yeast *Candida lusitaniae*. *Yeast* 28(4), 321-30.

7- Wichmann G, Sun J, **Dementhon K**, Glass NL and Lindow SE. (2008) A novel gene, *phcA* from *Pseudomonas syringae* induces programmed cell death in the filamentous fungus *Neurospora crassa*. *Molecular Microbiology* 68(3), 672-89.

8- **Dementhon K**, Iyer G and Glass NL. (2006) VIB-1 is required for expression of genes necessary for programmed cell death in *Neurospora*. *Eukaryotic Cell* 5(12), 2161-73.

9- Glass NL and **Dementhon K.** (2006) Non-self recognition and programmed cell death in filamentous fungi. *Current Opinion in Microbiology* 9(6), 553-8. Review.

10- Kaneko I, **Dementhon K**, Xiang Q, and Glass NL (2006) Nonallelic interactions between *het-c* and a polymorphic locus, *pin-c*, are essential for nonself recognition and programmed cell death in *Neurospora crassa*. *Genetics* 172(3), 1545-55.

11- **Dementhon K** and Saupe S.J. (2005) DNA-binding specificity of the IDI-4 basic leucine zipper factor of *Podospora anserina* defined by Systematic Evolution of Ligands by Exponential Enrichment (SELEX). *Eukaryotic Cell* 4(2), 476-483.

12- **Dementhon K**, Saupe S.J and Clavé C. (2004) Characterization of IDI-4, a bZIP transcription factor inducing autophagy and cell death in the fungus *Podospora anserina*. *Molecular Microbiology* 53(6), 1625-40.

13- **Dementhon K**, Paoletti M, Pinan-Lucarré B, Loubradou-Bourges N, Sabourin M. Saupe S.J and Clavé C. (2003) Rapamycin mimics the incompatibility reaction in the fungus *Podospora anserina*. *Eukaryotic Cell* 2(2), 238-246.

14- Pinan-Lucarré B, Paoletti M, **Dementhon K**, Coulary-Salin B and Clavé C. (2003) Autophagy is induced during cell death by incompatibility and is essential for differentiation in the filamentous fungus *Podospora anserina*. *Molecular Microbiology* 47(2), 321-333.