

# Heykel Trabelsi

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Postdoctoral Researcher, Ph.D.

DOB: February, 23<sup>th</sup> 1981 (Nabeul, Tunisia)

## Research Topics

Engineering new metabolic pathways to produce high value compounds using synthetic biology approaches

## Present & previous positions

- Jan. 2016 - **Postdoctoral fellow**, (under the supervision of Pr. Jean loup Faulon), UMR MICALIS, Present AgroParisTech-INRA, Jouy en Josas (France).
- Jan. 2015 - **Postdoctoral fellow**, (under the supervision of Pr. Jean loup Faulon), Institute of Systems and Synthetic Biology (iSSB-Genopole), Evry, France.  
Dec. 2015
- Oct. 2008 - **Ph.D. student**, (under the supervision of Pr. Patrice Soumillon), Institute of life sciences, Oct. 2014 Louvain la neuve, Belgium.
- March. 2007 - **Master student**, (under the supervision of Pr. Jacques Baratti), Architecture et fonctions March. 2008 des macromolécules Biologique (AFMB), Marseille, France.

## Education

- 2008 - 2014 **Ph.D. in Chemistry**, Université catholique de Louvain, Louvain, Belgium.
- 2006 - 2008 **M.Sc. in Biological Engineering**, ENIS (Ecole Nationale d'Ingénieurs de Sfax), Sfax, Tunisia.
- 2003 - 2006 **Engineer in Biotechnologies**, ENIS (Ecole Nationale d'Ingénieurs de Sfax), Sfax, Tunisia.
- 2000 - 2003 **Classes Prépa**, IPEIS (Institut préparatoire aux études d'ingénieurs de Sfax), Sfax, Tunisia.

## Involvement in multidisciplinary research projects

- Contributor to a collaboration between the Protein engineering Lab and the Surface chemistry lab from the Université catholique de Louvain to join protein engineering and atomic force microscopy to solve and promote imaging of bacteriophages (2009-2013)

## Undergraduate students supervision

- 5 M.Sc. students in Biochemistry and Molecular Biology

## Scientific production

### Summary:

- 3 publications peer-reviewed journals and 2 to be submitted
- 4 oral communications
- 4 posters

### Publications in peer-reviewed journals or to be submitted

1. Selim Cherif, Ahmed Fendri, Nabil Miled, Heykel Trabelsi, Hafedh Mejdoub and youssef Gargouri, *Crab digestive lipase acting at high temperature: purification and biochemical characterization*, Biochemistry.  
2007
2. David Alsteens, Emanuele Pesavento, Gilles Cheuvart, Vincent Duprès, Heykel Trabelsi, Patrice soumillion and Yves dufrene, *Controlled manipulation of bacteriophages using single-virus force spectroscopy*, ACS Nano.  
2009
3. David Alsteens, Heykel Trabelsi, Patrice soumillion and Yves dufrene, *Multiparametric atomic force microscopy imaging of single bacteriophages extruding from living bacteria*, Nature communications.  
2013
4. Heykel Trabelsi, Thomas Delcourt and Patrice Soumillion, *Neutralization of an enzyme after the gene acquisition promotes its neofunctionalization*, To be submitted.
5. Heykel Trabelsi, Vincent Libis, Rémi Sieskind, Cécile Jacry and Jean-Loup Faulon, *Dynamic regulation of the pinocembrin producing pathway*, To be submitted.

### Oral communications

- 2010 **Directed evolution of a DD-peptidase into a Beta-lactamase**, Heykel Trabelsi and Patrice Soumillion, FEBS Congress, July.  
Gothenburg (Sweden)
- 2010 **Toward the evolution of a penicillin binding protein to a Beta-lactamase**, Heykel Trabelsi and Patrice Soumillion, European Research Training Network on Directed evolution of Functional Proteins Annual Meeting, September.  
Cambridge (UK)
- 2011 **Emerging a Beta-lactamase activity by directed evolution**, Heykel Trabelsi and Patrice Soumillion, European Research Training Network on Directed evolution of Functional Proteins Annual Meeting, April.  
Brussels (Belgium)
- 2011 **Engineering a new route of evolution between a penicillin binding protein and a Beta-lactamase**, Heykel Trabelsi, Carole Urbach and Patrice Soumillion, Université catholique de Louvain, PhD student's Day, May.  
Louvain la neuve (Belgium)

## Posters

- 2010 **Evolvability of a DD-peptidase into a Beta-lactamase**, *Heykel Trabelsi and Patrice Soumillion*, May.  
Namur (Belgium)
- 2010 **Directed evolution of a DD-peptidase into a Beta-lactamase**, *Heykel Trabelsi and Patrice Soumillion*, Young scientists Forum, June.  
Gothenburg (Sweden)
- 2011 **Engineering an evolutionary trajectories between phylogenetically related proteins**, *Heykel Trabelsi, Carole Urbach and Patrice Soumillion*, Young scientists Symposium, August.  
Leeds (UK)
- 2015 **Dynamic regulation of the pinocembrin producing pathway**, *Heykel Trabelsi, Vincent Libis, Rémi Sieskind and Jean-Loup Faulon*, Young scientists Symposium, June.  
Manchester (UK)

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## Languages

- French **Bilingual**  
Arabic **Bilingual**  
English **Fluent**  
German **Beginner**