CURRICULUM VITAE

ETAT CIVIL

Nom et prénom **:** REJIBA Samia.

Date et lieu de naissance **:** 15/08//1972 à Tunis.

Nationalité **:** Tunisienne.

Adresse **:** 6, Rue des Moniquettes 1008
Bab Menara, Tunis.

Situation familiale **:** Célibataire.

samia_biochimie@yahoo.fr

ETUDES ET DIPLOMES

*** 1990-1991 :** Baccalauréat en Sciences Expérimentales, mention assez bien.

*** 1991-1992 :** 1ère année Sciences Naturelles, mention assez bien (Faculté des Sciences de Tunis).

*** 1992-1993 :** 2ème année Sciences Naturelles, mention assez bien (Faculté des Sciences de Tunis).

*** 1993-1994 :** 3ème année Sciences Naturelles, mention assez bien (Faculté des Sciences de Tunis).

*** 1994-1995 :** Maîtrise en Sciences Naturelles, mention assez bien (Faculté des Sciences de Tunis).

*** 1995-1996 :** 1ère année DEA de Microbiologie, mention assez bien (Faculté des Sciences de Tunis).

*** 1996-1997 :** Diplôme d'Etudes Approfondies de Microbiologie, mention très bien. Stage au Laboratoire de Biochimie et de Technobiologie de la Faculté des Sciences de Tunis.

Sujet : Mécanismes moléculaires de la résistance aux β-lactamines chez *Pseudomonas aeruginosa*.

*** 1997-2001 :** Diplôme de Doctorat en Biologie, mention très honorable et félicitations du jury. Stage effectué au Laboratoire de Biochimie et de Technobiologie de la Faculté des Sciences de Tunis.

Sujet : Caractérisation biochimique des activités β-lactamases chez des souches d'origine clinique de *Pseudomonas aeruginosa* : purification et identification d'une nouvelle β-lactamase à spectre étendu.

*** Novembre 1999 :** Recrutement à la Faculté des Sciences de Tunis en tant qu'**assistante contractuelle** en Biochimie.

*** Octobre 2001 :** Recrutement à la Faculté des Sciences de Tunis en tant qu'**assistante** en Biochimie.

STAGES ET EXPERIENCES SCIENTIFIQUES A L'ETRANGER

*** 2003 :** stage post-doctoral, du 15 mars au 15 septembre 2003, au Laboratoire de Bactériologie de la Faculté de Médecine Pitié-Salpêtrière (Paris-France). Stage financé par UNESCO-LOREAL.

Projet : étude des mécanismes moléculaires impliqués dans la résistance au quinolones chez les bactéries à Gam négatif.

*** 2003 :** Participation à l'atelier de formation sur la « Biophysique des protéines membranaires » , organisé par l'Institut National de la Santé et de la Recherche Médicale, du 15 au 17 octobre 2003 à Montpellier (France).

*** 2004 :** stage réalisé, du 15 mars au 26 mars 2004, au Laboratoire de Biochimie des Signaux Régulateurs Cellulaires et Moléculaires, Université Pierre et marie Curie de Paris (France).
Objet : formation sur les technique suivantes
-HPLC
-Dot Blot-Western Blot
-Spectrométrie de Masse.

LISTE DES PUBLICATIONS SCIENTIFIQUES

1) **REJIBA S.,** O. BEL HADJ et K. BEN MAHREZ. **1997**. β-lactamase à spectre étendu chez la souche d'origine clinique *Pseudomonas aeruginosa* 802. ***Bull. Soc. Nat de TUNISIE***. 26 : 90-94.

2) BEN MAHREZ K., **S. REJIBA**, C. BEL HADJ and O. BEL HADJ. **1999.** β-lactamase-mediated resistance to extended-spectrum cephalosporins among clinical isolates of *Pseudomonas aeruginosa*. ***Res. Microbiol.*** 150 : 403-406.

3) **REJIBA S.,** O. BEL HADJ et K. BEN MAHREZ. **1999**. Resistance de *Pseudomonas aeruginosa* aux β-lactamines. ***Microb. Hyg. Ali.*** 11 :16-21.

4) BEN MAHREZ K., F. LIMAM, A. BELLAAJ, **S. REJIBA**, T. BEN HAMMOUDA, N. ALFEDDY, C. BEL HADJ and O. BEL HADJ. **1999.** Purification and biochemical properties of beta-lactamase from *Escherichia coli*. ***J. Toxicol-Toxine Reviews.*** 18 : 221-228.

5) **REJIBA S.,** K. BEN MAHREZ et O. BEL HADJ. **2001.** Pouvoir inducteur des β-lactamines sur les céphalosporinases chromosomiques de souches d'origine clinique de *Pseudomonas aeruginosa*. ***Microb. Hyg. Ali.*** 13 : 3-5.

6) **REJIBA S.,** L. LIMAM, C. BEL HADJ, O. BEL HADJ and K. BEN MAHREZ. **2002.** Biochemical characterization of a novel extended-spectrum β-lactamase from *Pseudomonas aeruginosa* 802. ***Microb. Drug Resist***. 8 : 9-13.

7) **REJIBA S.,** L. LIMAM, O. BEL HADJ and K. BEN MAHREZ. **2003.** Purification et identification d'une β-lactamase à spectre étendu chez *Pseudomonas aeruginosa* 802. ***Microb. Hyg. Ali.*** 15 : 10-15.

LISTE DES COMMUNICATIONS SCIENTIFIQUES INTERNATIONALES

1) 68ème **Congrès de la Société de Physiologie**, du 19 au 22 septembre 2000 à Liège **(BELGIQUE)** :

REJIBA S., K. BEN MAHREZ and O. BEL HADJ. **2000**. Kinetic properties of a novel extended-spectrum β-lactamase from *Pseudomonas aeruginosa*. ***European Journal of Physiology***. 440 : R255. **(Poster).**

Le résumé de cette communication a été publié dans le journal **« European Journal of Physiology** ». Dans le cadre de ce congrès, j'ai obtenu **une bourse** de 8000 Francs belges.

2) 2ème **Congrès de Génétique et Biologie Moléculaire**, du 15 au 17 novembre 2000 à Fès-Saiss **(MAROC)** :

REJIBA S., K. BEN MAHREZ et O. BEL HADJ**. 2000**. Etude moléculaire de la résistance enzymatique aux β-lactamines chez des souches cliniques de *Pseudomonas aeruginosa*. **(Poster).**

3) 4ème **Congrès Européen de Chimiothérapie et Infection**, du 4 au 7 mai 2002 à Paris (**France)** :

REJIBA S., C. CHOUCHANY, F. SOUISSI, K. BEN MAHREZ and O. BEL HADJ. **2002**. Characterization of an extended-spectrum beta lactamase from *Salmonella infantis*.

4) Congrès Arabe des Plantes Médicinales, du 13 au 15 mai 2002 à Menama (**ROYAUME DU BAHRAÏN**) :

Ben-Mahrez K., **S. REJIBA**, A. BELLAAJ, T. BEN-HAMMOUDA and O. BEL HADJ. 2002. The crisis in antibiotherapy leads to search for antimicrobial compounds from plants.

5) 14th European Congress of Clinical Microbiology and Infectious Diseases, du 1 au 4 mai 2004 à Prague (République Tchèque) :

Réjiba S., A. Aubry, V. Jarlier, E. Cambau. 2004. ParE mutations in *Pseudomonas aeruginosa* clinical isolates with a high level of ciprofloxacin resistance **(Poster)**.

6) 7th European Congress of Chemotherapy and Infection, du 19 au 4 au 22 octobre 2005 à Florence (Italie) :

Réjiba S., A. Aubry, A. Kechrid, V. Jarlier, E. Cambau. 2005. Type II topoisomerase mutations in TEM-type beta-lactamase producing *Escherichia coli* isolates **(Poster)**.

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CURRICILUM VITAE

Surname: REJIBA
Name: Samia
Date of Birth: 15/08/1972, Tunis, Tunisia.
Nationality: Tunisian

Baccalaureate (final secondary school examination) and degree course (University)

In 1991: Success at the Baccalaureate (passed with distinction).

From 1992 to 1995: Succesful university studies (Natural Sciences) for four years at the "Faculté des Sciences de Tunis" (with distinction each year).

1996: Successful theoretical studies in Microbiology (with distinction).

1997: Acquisition of the Postgraduate Diploma in microbiology (with first class honorous).

2001: Acquisition of Ph.D with highest level of distinction (study conducted on "The identification and charcterization of a novel extended-β-lactamase isolated from a clinical strain of *Pseudomonas aeruginosa*").

Since 1999: University teacher in Biochemistry at the Faculté des Sciences de Tunis.

Diplomas

1995: Sciences Degree (acquired with distinction at "he Faculté des Sciences de Tunis").
1997: Acquisition of the Postgraduate Diploma in Microbiology (with first class honorous).

2001: Acquisition of Ph.D with highest level of distinction (study conducted on "The identification and charcterization of a novel extended-β-lactamase isolated from a clinical strain of *Pseudomonas aeruginosa*").

Transripts

* Exam results obtained with distinction in 1995 to acquire"Science Degree" (average 13/20).

* Exam results (theoretical study in Microbiology) obtained with distinction in 1996 (average 12/20).
* Results obtained for the acquisition of the Postgraduate Diploma in Microbiologyin 1997 (with first class honorous: 18/20).
* Doctoral Thesis (PhD) acquired in 2001 with highest level of distinction.

Thesis

Title "Characterization of β-lactamases in clinoical strains of *Pseudomonas aeruginosa*: purification and identification of a novel extended-spectrum β-lactamase".

Summary: Involvement of enzymatic mechanism in reistance to β-lactam-antibiotic in clinical isolates of *Pseudomonas aeruginosa* was investigated. β-lactamase activities were performed spectrophotometrically and by electrophoresois. Their inducibility, their substrate and inhibition profiles and their isoelctric points were determined.
All strain expressed an inducible chromosomal cephalosporinase, enhanced with cefoxitin and imipenem. They produced secondary β-lactamases inhibited by clavam: strains 687, 59 and 58 had carbenicillinase with pIs of 5.7 and 5.3. Strain 802 expressed a secondary β-lactamase of pI 7.6 with an extended spectrum activity (ESBL). This ESBL was purified to homogeneity by filtration on sephadex G-75 followed by CM-Sepharose and SP-5PW column chromatographies. It had a molecular mass of 30000 Da. Kinetic parmeters of this ESBL were determined. Among extended-spectrum cephalosporins the highest hydrolytic efficiency was obtained for cefpirome. The enzyme had the highest affinity for ceftriaxone. The pI 7.6 ESBL was inhibited by clavam, sulbactam, cefoxitin, imipenem and aztreonam. It showed the lowest Ki value for clavam and imipenem.

Training certificates

* **2003:** Post-doctoral training for a six-month period (15 march-15 september) at the « Laboratoire de Bactériologie de la Faculté de Médecine Pitié-Salpêtrière (Paris-France) ».
This trainig was supported by a followship from **UNESCO-LOREAL.**

In the training certificate, the Director (Pr. Cambau E) mention :

- the methods that i had acquired (PCR, sequencing gene, affinity chromatoggraphy),
- the results obtained concerning the involvement of mutations in DNA gyrase and topoisomerase IV genes in resistance to fluoroquinolones in clinical isolates such *P. aeruginosa, E. coli* and other Gram-negatif bacteria.

* **2003 :** Workshop on « Biophysic of membrane proteins» , oized by the « Institut National de la Santé et de la Recherche Médicale » (15 -17 october 2003 (France)).
***2004 :** Training, 15 -26 march 2004, at « Laboratoire de Biochimie des Signaux Régulateurs Cellulaires et Moléculaires, Université Pierre et Marie Curie de Paris (France).

Acquired technics :

- HPLC;
- Dot Blot-Western Blot ;
- Spectrométrie de Masse.

Language certificates

The training, that i hope to do, will occur at a belgian laboratory. In Belgium the official language is the french.

Tunisia is a francophone country. I've learned the french language since i was 7. At college and university, Sciences are teached in french language. I teach Biochemistry at the" Faculté des Sciences de Tunis". So, it is evident that i speak an write in french.

Proof of admission

In the letter of admission , Pr. Jean marie Frère (Director of the "Laboratoire d'Enzymologie » Centre d'Ingénierie des Protéines, Liège, Belgium) inform me that he has the pleasure to receive me at his laboratory for a training from 15 february to 15 september 2008.

Awards

I have not awards, but I had obtained a followship from UNESCO-L'OREAL in 2003.

Membership

I'm not a membership. I have not received a proposition to be a membership of an organisation .

References

In the three reference letters, Prs. Amri M, Bodabbous A and Ben Hassine K mentione that:

- they have known me for at least 10 years (as a student and then as a colleague);
- i have a good academic capacity;
- for the fench languag: i have excellent verbal communication and writing, and excellent research capacity.

All three Prs encourage my application for the IBD Merit Scholarship Program.

Publication Papers

1) REJIBA S., O. BEL HADJ et K. BEN MAHREZ. **1997**. β-lactamase à spectre étendu chez la souche d'origine clinique *Pseudomonas aeruginosa* 802. ***Bull. Soc. Nat de TUNISIE***. 26 : 90-94.

2) BEN MAHREZ K., **S. REJIBA**, C. BEL HADJ and O. BEL HADJ. **1999.** β-lactamase-mediated resistance to extended-spectrum cephalosporins among clinical isolates of *Pseudomonas aeruginosa*. ***Res. Microbiol.*** 150 : 403-406.

3) REJIBA S., O. BEL HADJ et K. BEN MAHREZ. **1999**. Resistance de *Pseudomonas aeruginosa* aux β-lactamines. ***Microb. Hyg. Ali.*** 11 :16-21.

4) BEN MAHREZ K., F. LIMAM, A. BELLAAJ, **S. REJIBA**, T. BEN HAMMOUDA, N. ALFEDDY, C. BEL HADJ and O. BEL HADJ. **1999.** Purification and biochemical properties of beta-lactamase from *Escherichia coli*. ***J. Toxicol-Toxine Reviews.*** 18 : 221-228.

5) REJIBA S., K. BEN MAHREZ et O. BEL HADJ. **2001.** Pouvoir inducteur des β-lactamines sur les céphalosporinases chromosomiques de souches d'origine clinique de *Pseudomonas aeruginosa*. ***Microb. Hyg. Ali.*** 13 : 3-5.

6) **REJIBA S.,** L. LIMAM, C. BEL HADJ, O. BEL HADJ and K. BEN MAHREZ. **2002.** Biochemical characterization of a novel extended-spectrum β-lactamase from *Pseudomonas aeruginosa* 802. ***Microb. Drug Resist***. 8 : 9-13.

7) **REJIBA S.,** L. LIMAM, O. BEL HADJ and K. BEN MAHREZ. **2003.** Purification et identification d'une β-lactamase à spectre étendu chez *Pseudomonas aeruginosa* 802. ***Microb. Hyg. Ali.*** 15 : 10-15

I summarize here only the two international papers where i was either the first or the second author.

1) BEN MAHREZ K., **S. REJIBA**, C. BEL HADJ and O. BEL HADJ. **1999.** β-lactamase-mediated resistance to extended-spectrum cephalosporins among clinical isolates of *Pseudomonas aeruginosa*. ***Res. Microbiol.*** 150 : 403-406.

Summary: In this study we had investigated the involvement of β-lactamases in resistance to extended-spectrum cephalosporins in four clinical strains of *Pseudomonas aeruginosa*. Three strains expressed an inducible chromosomal cephalosporinase and secondary β-lactamases (carbenicillinase active against penicillins as carbenicillin and ticarcillin). The forth strain produced the chromosomal cephalosporinase at a moderately elevated basal level. This cephalosporinase may be involved in resistance to cephalosporins. This strain expressed also an extended-spectrum β-lactamase of pI 7.6 with novel properties.

2) **REJIBA S.,** L. LIMAM, C. BEL HADJ, O. BEL HADJ and K. BEN MAHREZ. **2002.** Biochemical characterization of a novel extended-spectrum β-lactamase from *Pseudomonas aeruginosa* 802. ***Microb. Drug Resist***. 8 : 9-13.

Summary: In this work we had characterized the pI 7.6 ESBL with novel properties. The enzyme was purified to homogeneity by chromatographies, then its kinetic properties were determined. This b-lactamase showed a broad-substrate profile by hydrolyzind penicillins end cephalosporins (cefotaxime, ceftriaxone and ceftazidime) Cefriaxone was the best substrate. The enzyme was inhibited by clavam, sulbacta, imipenem, cefoxitin and aztreonam.

International Congresses

1) 68th **Congress of the Physiology Society**, 19-22 september 2000 **(BELGIUM)** :

REJIBA S., K. BEN MAHREZ and O. BEL HADJ. **2000**. Kinetic properties of a novel extended-spectrum β-lactamase from *Pseudomonas aeruginosa*. ***European Journal of Physiology***. 440 : R255. **(Poster).**

The abstract of this communication was published in **« European Journal of Physiology** ».

2) Second Congress of Genetic and Molecular Biology, 15-17 november 2000 **(MAROCCO)** :

REJIBA S., K. BEN MAHREZ et O. BEL HADJ**. 2000**. Etude moléculaire de la résistance enzymatique aux β-lactamines chez des souches cliniques de *Pseudomonas aeruginosa*. **(Poster).**

3) 4th **European Congress of Chimiotherapy and Infection**, 4-7 May 2002 (**France)** :

REJIBA S., C. CHOUCHANY, F. SOUISSI, K. BEN MAHREZ and O. BEL HADJ. **2002**. Characterization of an extended-spectrum beta lactamase from *Salmonella infantis*.

4) Arabic Cogress of Medicinal, 13-15 mai 2002 (**BAHRAÏN**) :

Ben-Mahrez K., **S. REJIBA**, A. BELLAAJ, T. BEN-HAMMOUDA and O. BEL HADJ. 2002. The crisis in antibiotherapy leads to search for antimicrobial compounds from plants.

5) 14th European Congress of Clinical Microbiology and Infectious Diseases, du 1 au 4 mai 2004 à Prague (République Tchèque) :

Réjiba S., A. Aubry, V. Jarlier, E. Cambau. 2004. ParE mutations in *Pseudomonas aeruginosa* clinical isolates with a high level of ciprofloxacin resistance **(Poster)**.

6) 7th European Congress of Chemotherapy and Infection, du 19 au 4 au 22 octobre 2005 à Florence (Italie) :

Réjiba S., A. Aubry, A. Kechrid, V. Jarlier, E. Cambau. 2005. Type II topoisomerase mutations in TEM-type beta-lactamase producing *Escherichia coli* isolates **(Poster)**.