ANNEX II

DR. PATRICE NORDMANN - PERSONAL INTERVIEW

1. Dr. Nordmann, you got MD and PhD degrees in Microbiology and Infectious Diseases. Have you always been interested in science?

Yes, I have been always interested in Science and Medicine.

2. Your postdoctoral research was done in the US (University of Wisconsin-Madison) and in Switzerland (Biozentrum, University of Basel). Do you recommend scientific stays abroad?

Yes, it is absolutely mandatory to stay abroad for years to gain an understanding of Science.

3. The fight against bacterial antimicrobial resistance is an European Union priority. You have been principal and co-investigator of projects funded either by national or international, private or public grant agencies. How important is the European funding in the scientific career development?

European fundings are very important for performed nice and joined projects. However, my carrier has been mostly sustained by local fundings (France).

4. As a scientist, you have an extensive knowledge of the genetics, biochemistry and molecular epidemiology of antibiotic resistance from fundamental research to clinical applications with a major focus on emerging resistance traits such as the worldwide spread of carbapenemases. What great question would you like to solve?

The questions I would be interested to solve, would be:

- The development rapid and point-of-care tests, for rapid identification of multidrug-resistant bacteria.
- The discover of novel antibiotic molecules that may be active against important multidrug-resistant bacteria such as carbapenemase-producing bacteria.

Campus del Hospital Universitario Virgen del Rocío
Avda. Manuel Siurot s/n • 41013 Sevilla
Tel. + 34 955 92 3001 • Fax +34 955 92 3101
itribis@itribis.us.es
www.itribis.ibis-sevilla.es

SEVENTH FRAMEWORK PROGRAMME

"ITRIBiS Project is supported by the European Union through the Seventh Framework Programme for Research and Development under Grant Agreement nº 316151 and has been running since 1st of July 2013 (duration: 36 months and 6 months for external evaluation)".

5. More than 25,000 people die each year due to antibiotic-resistant bacteria in Europe. Which are the main difficulties for prevention of infections in immunosuppressed patients, surgeries or transplantation?

It is not sure that 25'000 people die every year of MDR bacteria in Europe. The main difficulties for prevention of infections are related to the fact that patients may be contaminated with their own, flora and following on the daily basis the hygiene recommandations is a very difficult task.

6. The problem of antibiotic resistance has impact on both public and veterinary health. How could we address the issue of the transmission of antibiotic-resistant microorganisms between animals and humans?

Most of the antibiotic resistances that are emerging in animal isolates are not transmitted to humans. The two most important antibiotic resistance for humans currently (ESBLs and carbapenemases) are not related to cross contamination between animals and humans. However, recently resistance to colistin has been identified in the environnement, animal and human isolates.

7. Many clues indicate that the reservoir of this novel resistance trait is animals including the heavy usage of colistin in animals (growth promoters prophylaxis, metaphylaxis, treatment). In that case, decreased amounts of polymyxin and in animals shall be done at the international level to obtain significant results.

No, I consider that laws shall be taken to forbid sale of several antibiotics.

8. In addition, large screening of human isolates for polymyxin resistance shall be performed in particular in countries when colistin prescription has already been evidenced in humans. This is the case for example in Italy.

Yes, I consider that large scale use of several of our rapid diagnostic tests may contribute significantly to control the spread of antibiotic resistances at a global scale. This is true that the rapid Carla NP test aimed to detect carbapenemase producers, the rapid ESBL NP test (that is currently under industrial development) to detect ESBL producers and the rapid Polymyxin NP aimed to detected resistance to polymyxins in one hour in Enterobacteriaceae. Discussion on industial development of this latter test are ongoing.

Campus del Hospital Universitario Virgen del Rocío
Avda. Manuel Siurot s/n • 41013 Sevilla
Tel. + 34 955 92 3001 • Fax +34 955 92 3101
itribis@itribis.us.es
www.itribis.ibis-sevilla.es

"ITRIBiS Project is supported by the European Union through the Seventh Framework Programme for Research and Development under Grant Agreement nº 316151 and has been running since 1st of July 2013 (duration: 36 months and 6 months for external evaluation)".

9. Definitely, antibiotic resistance is a multifaceted problem and truly a global challenge. In developing nations, people drink contaminated water or practise poor hygiene. Furthermore, some countries allow pharmacies to sell antibiotics without prescription. Do you consider educating the public and pharmacists could go a long way towards curbing resistance?

Yes, secrets are as follows: producing a scientific breakthrough, work hard and write well.

10. You have taken several patents in Microbiology focused on rapid diagnostic, some of them leading to products in development. Do you consider the large-scale application of these tests would mean better control of the spread of antibiotic resistance?

The main challenges for coming years in Europe will be the fierce competition coming from Asia, mostly from China.

Campus del Hospital Universitario Virgen del Rocío
Avda. Manuel Siurot s/n • 41013 Sevilla
Tel. + 34 955 92 3001 • Fax +34 955 92 3101
itribis@itribis.us.es
www.itribis.ibis-sevilla.es

"ITRIBiS Project is supported by the European Union through the Seventh Framework Programme for Research and Development under Grant Agreement nº 316151 and has been running since 1st of July 2013 (duration: 36 months and 6 months for external evaluation)".