

Conclusions on crypto-infections: What are the next steps to advance?

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Why « crypto-infections »?

- * **Charles Nicolle, the Nobel Prize winner in the twenties, described « Les infections inapparentes »**
- * **Then, many names...**
 - * Willy Burgdorfer in the fifties: « occult infections », confusion with « occultism »!
 - * Hidden infections
 - * Stealth infections
 - * Cold infections
 - * Latent infections
 - * Silent infections, etc.
- * **In informatics: the modern terminology defines the « crypto-viruses » hidden in your computers**

Huge field of crypto-infections in medicine

- * **Crypto-infections: role in chronic diseases**
 - * auto-immune,
 - * degenerative
 - * cancer
- * **Bacteria, parasites, fungi?, but also viruses**
- * **Huge market**

Politics

- * **France and USA: official working group versus Infectious disease society**
 - * High Authority for Health (HAS) versus the French Infectious Diseases Society (SPILF)
 - * US Department of Health and Human Services (HHS) versus IDSA
 - * *We should not accept anymore divergent guidelines*
- * **Support of MPs**
 - * French Senate and Deputies
 - * US Congress
 - * European Parliament
 - * Laws?
- * **We have to break the monopoly of deciders**
 - * National reference centres
 - * and allies
- * **Need for Medico-economic studies:** huge cost for countries linked to the wandering of chronic patients

Physicians

- * **Attacks against GPs continue in many countries**
- * **Need to create national networks**
- * **Databases**
 - * Questionnaires of signs and symptoms
 - * Biological results
 - * Treatments
 - * Outcome
- * **Creation of clinical reference centres including**
 - * patients representatives
 - * Lyme doctors
- * **Medical education:** difficult without strong data

Science

- * **Increase in the publication of good scientific data**



- * **Obstacles:**

- * Lack of funding
- * Lack of labs
- * Problem of blood banks to export samples

- * **Create a network of labs**, including vet labs

- * **Comme back of the pharmaceutical companies**



- * **Need for new tests** (diagnosis and follow-up), including immunologic tests

- * **Evaluation of new treatments**

- * Huge cost of big randomized studies
- * Interest of proof of concept studies, well documented open studies
- * Phytotherapy vs lack of new antimicrobials and fear of antibiotic resistance

- * **Animal models**

- * **Other factors: e.g. Microbiote**

Communication

- * **We are approaching the tipping point**
- * **Deniers**
 - * seem afraid
 - * become more aggressive
- * **Scientific level: Need for open-minded medical journals to publish**
 - * Censorship is still vigorous
 - * Create a new journal is a long process and it needs several years before recognition in PubMed
- * **Social level:**
 - * Help of media, with the patients
 - * Organize events with stars
 - * Numerous professional at risk: e.g. foresters

Crypto-infectiology

- * A new specialty
- * Not limited to Lyme disease nor to tick-borne diseases
- * Taking into account all the fields in infectiology abandoned or rejected by the « classical infectiologists »
- * Study of many unexplained conditions in chronic diseases
- * Need to create an international society to promote science
- * **Long life crypto-infectiology!**
- * Merci beaucoup