



An Interview with Boris Farber, CEO, Noigel LLC

SMi are thrilled to have Boris Farber, CEO of **Noigel**, present at the **Superbugs & Superdrugs USA** industry summit when it arrives to Iselin, New Jersey on **November 14th and 15th**.

Noigel LLC was established in 2010 by a group of scientists to study and develop drugs in areas such as: anticancer, antiviral and antimicrobial drugs with new properties. With over 40 years of experience in areas such as fields of Bioengineering, Nano and Biotechnology, Dr Farber has recently been named *Professional of the Year for 2016 in Academic Services** <http://bit.ly/2dvc479>

His address on fighting multidrug resistance will explore novel strategies through multiple drugs synergism, based on docking in drug design and TRIZ.

Further details are available online at www.superbugs-usa.com



About you – what is your role and what perspective do you bring to the conference?

I am Dr. Boris Farber, PhD, Dr. Science, Academician, CEO and Founder Noigel LLC.

I have been successfully developing and implementing TRIZ (the theory of inventive problem solving) in different fields of medicine and technology. Contemporary TRIZ is both a theory of technology evolution and a methodology for the effective development of new technological systems.

It has two major subsystems based on the laws (prevailing trends) of technological system evolution: a set of methods for developing conceptual system designs and a set of tools for the identification and development of next-generation technologies and products.

With over 35 years I have been developing self-adjusted dynamical systems in many fields of medical and Bioengineering technology. Since 1995 by applying self-adjusted and self-organized dynamical system approach, our group of scientists started research for dynamic drugs.

After 15 years of research our group established Noigel LLC (2010) as the biopharmaceutical startup company to study and develop drugs based on principle multiple synergisms, based on TRIZ and modern Design and Technologies in different fields: antiviral, antimicrobial, etc drugs with new properties.

Our research team discovered new multiple synergetic properties in well known drugs that can recover multidrug resistance sensitivity of microorganism's strains to antibiotics in vitro and in vivo, based on Docking design and TRIZ methodology. Majority species of microorganisms lose their virulence factors including poly-resistance and toxin formation in log-phase of growth. This strategy also decreasing of antibiotics toxicity.

During this conference I will present new approach of using synergism and increase sensitivity of existing antimicrobials to resistant bacteria. It is based on blocking resistance of bacteria and decreasing virulence factors which improves sensitivity to current anti microbial groups.

I would like also to identify partnership opportunities in future development the new strategy and possibility for development new class of anti- bacteria resistant drugs.

2. What will attendees take away from your talk?

Upon completion of my presentation, I am expecting that attendees will gain a greater understanding about new perspective ways for fighting with multidrug resistant microorganisms without selection resistance strains. I am also hoping find partners and like-minded people, companies to develop new drugs based on this platform. I also hope to interest the federal, public, private and international pharmaceutical sector in search promising means for microbial pathologies fighting without killing the bacteria. I will provide clear guidance to all parties that may have interest in learning more about Noigel LLC platform as well as mechanisms to partner with Noigel LLC on the development of new ant resistant products.

3. Are there any sessions you are particularly looking forward to and why?

Dr Rosemarie Aurigemma, Chief, Biodefense Drug Development Section, DMID, NIAID, NIH will describe NIAID programs that support antimicrobial product development

We would like to know what the US national program can support the new course search resistance reduction tools, discuss the prospects of further cooperation

Dr Christopher Houchens, Branch Chief, Antibacterials Program, BARDA BARDA's end-to-end support of antibacterial product development.

Company will present novel developments in emerging of multidrug resistance and ongoing projects to identify partnership opportunities BARDA and US government.

Dr John Rex, Senior Vice President and Chief Strategy Officer, Infection Business Unit, AstraZeneca

We would like to offer 2 areas for collaborative research: the removal of resistance by enhanced bacterial growth and also inhibition the polymyxin toxicity.

Dr Annaliesa Anderson, Vice President and CSO Bacterial Vaccines, Pfizer non-antibiotic prophylactic approaches.

We would like to offer our approach to create quasi-live vaccines.

Dr David Cook, Chief Scientific Officer, Blueberry Therapeutics Ltd (Restoring antibiotic sensitivity in multi-drug resistance infections, Enhance antibiotic effects, expand efficacy and maintain clinical usefulness)

The company research direction is completely coincides with our direction: the restoration of the sensitivity bacteria to antibiotics and increased antibiotic effects. Perhaps combine efforts to develop new directions sensitivity to antibiotics recovery under conditions in vivo.

Dr Anthony Simon Lynch, Senior Scientific Director, Janssen Research & Development LLC Bacteriophage-derived lysine

We have two articles about a sharp increase in the virulence of the bacteriophage through their chemical modification, can be together to try to enhance the effectiveness of bacteriophages.

Dr Olga Lomovskaya, Vice President, Biology, The Medicines Company novel beta-lactamase inhibitors to calm the carbapenemase storm.

LOCATED in NJ and have other products Hyperlipidemia, CAD and Antibiotic

4. Industry Incentives – How important are they and what has worked in the past?

We want to show the new alternative ways for an MDR fighting. Pharmaceutical companies invest huge financial resources in the new antibiotics development to which microorganisms adapt instantly. As per our research platform making a new antibiotic and then face to bacterial resistance development we make analogy in buying a new car and all the time it hits a pot hole (**problem**). Instead of getting a new car we should fix and address the **problem** and solve it.

Due to the fact that proposed platform is new approach and may become cost effective and more efficient for the pharmaceutical industry, we hope to find support for this platform is not only among the pharmaceutical companies, but also among financial groups, research centers, international organizations, and especially the US and UK Government.

5. What are we doing to tackle zoonotic diseases

Obligate zoonoses, particularly associated with farm animals, most of them have long are resistant strains. This is due to the widespread use of antibiotics in agriculture. Our platform will allow for selection of resistant strains of fighting and zoonotic infections. We also urge farmers to stop using antibiotics in veterinary medicine to prevent the selection of resistant strains, and to try to fight the infection without killing the bacteria.

6. What are your main activities towards the global action plan against antibiotic resistance?

For global action plan against antibiotic resistance necessary to discontinue to conduct artificial selection of resistant strains by using the new antibiotics, radically change the strategy for combat infections, stop killing the bacteria, and try to "persuade" them - not allocate virulence factors. In the first place, find partners for the realization new platform, "to win, stop fighting." Objective the platform - resistance factors inhibit bacteria without killing them. This will prevent the selection new dangerous multiresistance virulence strains. In order to implement the platform needed both financial resources and moral support from the international community and US and UK Government.

7. What should done to strengthen the antibiotic pipeline?

Creating a scientific consortium, based on agreements between pharmaceutical companies, small biotech research centers, the Government for immediate support for new unconventional initiatives in the fight against multiresistant bacterial strains. This may be an international scientific foundation to fight resistance, which will have a website and would fund any creative research in this direction.

Superbugs & Superdrugs USA

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Renaissance Woodbridge Hotel, Iselin, New Jersey USA

www.superbugs-usa.com