

Interview with Francesco Paolo Pilato, Bio3 Research, Italy

The Pontifex from Milan

An interview with the founder and president of Bio3 Research, Milan, Italy. Francesco Paolo Pilato talks about his company, which uses its industry contacts to transfer academic knowledge from the laboratory to the market, and about the necessity for fluent English and an unquenchable curiosity.

The headquarters of Bio3 Research is located in central Milan, between the local tax office (*Agenzia delle Entrate*) and a Catholic church. It's just a two-minute walk from a nice park, where pedestrians can relax away from the chaos of this densely inhabited city. When meeting Francesco Paolo Pilato, the founder of Bio3 Research, one is struck by his attributes as a highly disciplined businessman who is proud of running his own company. Bearing in mind the notoriously poor level of foreign language skills in Italy, it is astonishing to conduct the interview entirely in English. Pilato not only speaks English fluently, he also does business in an 'Anglo-Saxon way', preferring not to throw his weight around as the boss of the company. He explains: "One thing is the shareholder, another is the team of people involved. Even though I am president and CEO of the company, I am aware that a business can only be run with all of the people of the company being involved." Does he really mean this? It's quite possible, since whenever he talks about Bio3 Research, he uses the first person plural.

What does Bio3 Research stand for?

Francesco Paolo Pilato: The number 3 stands for our three fields of interest: biotechnology (use of recombinant DNA and/or tissue culture based processes), bioelectronics (use of biotechnology in electronic devices such as biosensors, molecular electronics, and neuronal interfaces), and biomedicine (application of biological and physiological principles to clinical practice such as stents, medicated catheters, endoscopic tools etc.).

Why are your company's research facilities not in Milan?

Pilato: At the moment Bio3 has no laboratories since we take advantage of collaborations with scientists from universities and other research institutions. They perform research in their academic laboratories. Through such collaborations, we minimize our infrastructure costs. For example, we have a strong collaboration with Marco Bianchi at the Dipartimento di Biotecnologie (DiBit) San Raffaele in Milan. We are also planning some studies that are going to be carried out at Bioindustry Park Canavese, Turin, to take advantage of their infrastruc-

tures and services. Bio3 Research acts as a 'bridge' between the academia and the market...

... as a bridge which was lacking in Italy until now?

Pilato: Oh, yes! In 1995, while still working for a pharmaceutical company, I moved back to Italy and I realised that, with the exception of two or three institutions, at that time there were no technology transfer departments within academia. An institution which is not equipped with a 'technology transfer' tool risks having scientists who elaborate certain innovations which practically go into the drawer. In a very aggressive way, I define this as 'criminal' for two reasons: firstly, the scientist falls into daily frustration; secondly, the community cannot take advantage from the innovation generated which could potentially be beneficial.

Enough reason to establish your own company?

Pilato: In September 2000, while shaving in front of the mirror, I realised that it was the right time, although at that time, such an approach was considered a crazy idea. I have always dealt with crazy ideas, as in 1983 when I visited the Salk Institute in La Jolla and negotiated the transfer of know-how in the biotech field to the pharmaceutical company Serono (now part of the Merck group).

Why do you think you acted so 'crazily'?

Pilato: Because back in 1983 very few people knew the meaning of biotechnology, particularly in Italy. I was a pioneer in the

Francesco Paolo Pilato, an unorthodox biotech boss from Milan, Italy.



Photo: Giuliana Defforio

field. As a business developer, I brought somatostatin and the gene of somatostatin to Ares Serono. I got them from Roberto Crea, an Italian scientist who had started his own biotech company in San Francisco. Crea is a classic example of an early *fuga di cervelli* [literally translated: brain escape] from my home country to other countries offering better opportunities in research. I was lucky enough to work with a man, Fabio Bertarelli, owner and CEO of the Ares Serono group, a man of great vision. When somebody asked him the reason for investing in a gene for a 14 amino acid peptide, he always answered: 'we must learn and train ourselves in this field'. The roots of Bio3 Research stand in the concept that innovation cannot lay unexploited in the laboratories of academia.

Could you briefly pinpoint the main business areas of Bio3 Research?

Pilato: Bio3 Research mainly engages in cardiovascular disorders and connective tissue regeneration. Thanks to the collaboration with Marco Bianchi, the role of HMGB1 in cardiovascular disorders and in the regeneration of connective tissues was discovered. Furthermore, in 2003 an independent scientist offered us the use of oral cysteine for ESRD (End Stage Renal Disease) patients exposed to severe anaemia. Two patents have been filed and licensed out to a Mexican and Latin-American pharmaceutical group. In May 2007 this group will undertake a phase III study to possibly obtain the registration of a drug in Mexico and in all of the Latin-American sub-continent. Lastly, we obtained from Creabilis Therapeutics (an early-stage company based in Italy at Bioindustry Park Canavese, Turin) the worldwide license on their compound CT327 for the topical treatment of psoriasis. Phase I will start in May 2007. In addition, we are also looking for new research fields. We are currently trying to pursue some more opportunities in biomedicine.

Which field is to be considered to bring the biggest benefits to your company?

Pilato: The potential use of antagonists to HMGB1 in cardiovascular disorders has a potential world market of 30 billion dollars. As for connective tissue regeneration, all the segments of this market (cartilage, tendon, ligaments, wound healing, bone matrix reconstitution, burns) account for not less than 20 billion dollars. Population ageing is a very important factor, especially in cartilage damages and bone fractures, and for diabetic patients wound healing is a key issue. When we consider that the value of treatments of ESRD patients account for 25 billion dollars in the most industrialised countries then we are really excited to operate in this field. Our experimental ESRD drug has, in our opinion, a great potential.

Bio3 Research is an s.r.l. [Società a responsabilità limitata; a public limited company], right?

Pilato: Yes, the money all comes from my pocket.

Are you also sponsored by public money?

Pilato: Not at all, but I could consider other private investors with the aim of maintaining control of my company. Recently, because of certain achievements in the IP field (patent granted in Australia), some investors expressed their interest in our company. We will see if anything interesting develops in the future.

What was your 2006 turnover? How is the trend now compared to the beginning?

Pilato: A company like ours needs 5-6 years to perform a pre-

clinical development for further licensing out to a pharmaceutical company, which would then bring the product to the market. Therefore, as an early stage company, turnover is very limited at the beginning. On an informative note, Bio3 Research belongs to the Italian association of biotech companies (Assobiotec). Assobiotec is dealing with the political environment to elaborate specific fiscal tools for companies like ours. We hope to receive incentives to invest in biotech and R&D, which usually generates substantial revenues after 8-10 years from the start of activities.

Bio3 has already signed collaborations with various Italian laboratories. Have you started anything similar outside Italy?

Pilato: We are open to and highly interested in entering into collaboration with academic and research institutions all over the world. At the moment, we are discussing a potential collaboration with some universities in Canada, as well as with some individual scientists in the USA. Our strategy is based on business opportunities rather than just a specific area of research.

Is there a particular lesson that you have learned that you would like to share with our readers?

Pilato: I would say be curious, don't stop when difficulties are encountered, don't be satisfied with your success. Finally, I would like to encourage young scientists, especially in Italy, to learn English – English is fundamental to communicate and share ideas and to interact in a globalised world.

INTERVIEW: GIULIANA DEFLORIO