

Giuseppe Cornaglia: a Renaissance man of microbiology

Details of the 3rd International Day for Fighting Infection to be held on April 23, 2010, can be found in a display advertisement and the **Conference Diary** in this issue

When Giuseppe Cornaglia, associate professor of microbiology at Verona University, Italy, was a young boy living in Sardinia, he would dream of travelling beyond the limits of the island. When he started to do so, he kept a travel journal. After spending almost a decade in “the top floors” of the European Society for Clinical Microbiology and Infectious Diseases (ESCMID), he reflects that his version of *Gulliver’s Travels* would run to volumes if he had continued. His work with the society continues as ESCMID immediate past-president, and Cornaglia told *TLID* about this ideal combination of his passions for microbiology, travel, history, culture, and for people.

Cornaglia has seen, facilitated, and sometimes pushed ESCMID from what he acknowledges used to be “a

private club” to “a real professional society—a transition which is not yet complete”. The society is now enormously active, meeting the interests of thousands of members and being involved with professional affairs and daily activities of members, he notes. Cornaglia modestly will not comment on how ESCMID has changed under his presidency: “it is not for me to say”. But, in the time that Cornaglia has been involved with ESCMID, the executive have developed the society into a media-savvy influencer of policy and practice. The challenges that ESCMID continues to face, he says, are changing microbiological hazards and a changing Europe.

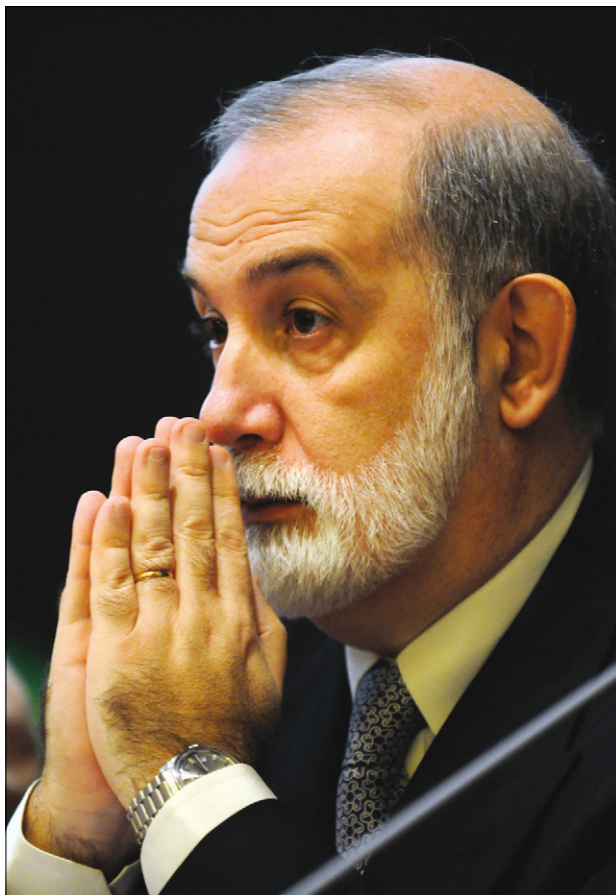
“We are technically in a global village”, says Cornaglia, so the biggest challenge that faces ESCMID “is to act as a united Europe with all its internal diversity and to play a role in the international scenario. Everything is different now because Europe is different now, and the perspectives of infectious diseases and microbiology are different now.” The goals, he says, are to bring the European individuality and the European model to deal with current microbiological threats. This means tailoring the increasing power of ESCMID to the new Europe—“changing from a strongly western-based society to a society encompassing the needs of people from eastern Europe, to give a stronger voice to Mediterranean people, and to initiate a dialogue with people across the oceans”.

As the microbiological situation changes, the problems have become global but the solutions remain local, says Cornaglia. “We really need to share experience.” A hugely pressing threat is antimicrobial resistance. At a time when WHO describes antimicrobial resistance as one of the top three threats to human health, Cornaglia is frankly critical of progress. He notes that many

campaigns, actions, and activities have happened but the outputs have not matched the amount of money and energy invested. “There has been a lot of politics involved”, he says, “but I have seen little significant progress in terms of science and almost no progress in the actual awareness of the lay public.”

The antibiotic crisis was identified 30 years ago but has worsened, and little has been done to improve positive behaviour, says Cornaglia. Campaigns have missed the target of educating the doctors involved and the public. “Many people know about antibiotic resistance but they often perceive it as an annoyance rather than a real threat, and so positive behaviour is not improved.” The problems are not just continuing abuse of antibiotics but increasingly a lack of effective antibiotics to treat certain infections. He suggests that previously, education messages have focused on what not to do but education must be delivered in positive terms, he believes, so that people know what to do. Often, this means individualising antibiotic use for each patient. Because the same people have been involved in education campaigns for years, Cornaglia reflects that “maybe now is the time to change the faces, and change the tunes”.

In November, last year, US President Barack Obama and Swedish Prime Minister Fredrik Reinfeldt, representing the European Union, announced a new transatlantic task force on antimicrobial resistance. Cornaglia welcomes the move but points out that more than one ocean exists around the world and dialogue is required between all regions. Moreover, he cautions that the task force must rely on cooperation between scientists rather than just politicians. “We have been witnessing the dreadful influence of politicians in this field for some time”, he notes. He adds that US President Obama is



known for seeking good advice, and Cornaglia welcomes the top-level recognition of the issue, but cautions that even better advice is now needed, and from scientists.

"The role of a scientific society is always to remain independent from politicians—to be a partner where necessary to work for public health but also to act as a critical voice", he urges. He cautions against scientists and scientific societies acting as the mouthpieces of politicians. "The ultimate goals of politicians and of scientists are not always the same. So scientists and scientific societies must be totally independent of politics", he emphasises.

Cornaglia has "always been fascinated by how infectious disease has been shaping the history and culture of the world and the interconnection between human history, activities and attitudes, and the emergence of infectious disease". Very close to his heart is his idea for the International Day of Fighting Infection on St George's Day (April 23). This symposium of historical lectures on infectious disease was developed to mark the 25th anniversary of ESCMID, and has allowed Cornaglia to combine his love of history and of clinical microbiology. He describes the widespread appearance of St George and his emblem, the red cross on a white background, around Europe: from the flag of England in the northwest to the icons of St George in Georgia in the southeast. This emblem has strong links with health and sanitation, while the slaying of the dragon represents banishing a microbial threat.

This year's European Day of Fighting Infection, on April 23, focuses on the history of infected people in hospitals—how infected people have been admitted to hospital and treated and how special hospitals (eg, fever hospitals) have been developing for centuries to accommodate such people. "We can

always learn from history, we cannot divine the future," says Cornaglia. "So, we can only stand back and see how our predecessors faced the same problems and try to face similar problems by applying similar algorithms." He notes that new solutions are not needed if old ones were successful, although "we must be prepared for the unknown but there is nothing that is completely unknown. History is always a great teacher of everything . . . and we have a lot to learn."

As a boy, Cornaglia became a polymath, with an equal achievement in many subjects, but an especial passion for classics, literature, and music. At 18, when he got the highest marks in his high-school leaving examination in the whole country and was given a national award, he decided that medical school befitted his academic success, since the medical school at the University of Sassari, Sardinia, was prestigious. In effect, he became a doctor by chance. But the temporary loss of stopping his broader study was great. "As soon as I opened the books I was appalled when I saw formulas and things very different from history and poetry. I really cried", he is not ashamed to recall. "But Sardinians are very stubborn so even crying, I decided to go ahead." He did not want to let himself or his family down, and gritted his teeth, getting maximum marks even though he hated the subject.

Cornaglia admits he also stumbled across microbiology, led by the enthusiasm of the late Professor Giuseppe Satta, the young, energetic director of microbiology at the University of Cagliari, also in Sardinia, who conveyed "the beauty of microbiology" and a sense of the future importance of the subject. Almost at the end of training in anaesthesiology and intensive care, Cornaglia followed his director to the University of Cagliari, and remains much indebted to him. At the beginning, he recalls,



The University of Sassari, Sardinia, Italy

he was fascinated by the personality and enthusiasm of his boss, "then I learned to love microbiology". But he continued his clinical work as an intensivist, being fascinated by the clinical aspects of microbiology rather than the laboratory and molecular work.

Finally, Cornaglia concludes he is happy now "because I am doing a job in which I can truly express myself", and his life is a continuum, from family life and his love of opera and collecting of CDs and DVDs to his varied work. He admits his technical skills are not the best: "I don't feel I am one of the top doctors or scientists", and he acknowledges that he has too little time to spend with his family. But in his work with ESCMID he is able to express his personality "not only in terms of personal skills, but in terms of meeting people, culture bridging, and diplomacy". He regrets the lack of a humanistic model for medical training, one that emphasises the beauty of life and culture—"the things we can't live without"—rather than technical skills. He urges young doctors to do what he or she really likes to do in life. "I always thought of myself as a humanist and not a scientist, which of course has been heavily criticised by many. But I'm happy this way."

Kelly Morris