

Surfing the wave

→ Janet Fricker

Mario Dicato is one of a dwindling band of academic haemato-medical oncologists, who has relished a career jumping from one topic to the next as opportunities arise. Whether treating patients with confiscated marijuana, developing the world's leading congress on gastrointestinal cancers or doing a speaking tour of Colombia and Peru, Dicato is sure to make the most of the experience.

Serendipity has characterised the life and work of Mario Dicato, the clinician who, perhaps above anyone else, has put Luxembourg on the oncology map, and who views his career as 'a series of fortunate events'.

"There's been no grand plan. The only reason I ever did anything in life was for fun. My ambition has only ever been to do the things that interest me," says Dicato, who admits to a particularly low boredom threshold, and likens his approach to medicine to surfing the wave. "Rather than staying a lifetime with one theme, I prefer to take advantage of new topics that interest me, get totally up to speed in that area, then use my knowledge to leapfrog on to the next wave. It keeps everything fresh and interesting, but from the career perspective it has probably been a bit like shooting myself in the foot."

Such self-inflicted wounds, however, have not prevented Dicato from enjoying a distinguished international career. In a medical environment requiring ever greater subspecialisation, Dicato believes he is now one of the few remaining general academic haemato-oncologists, and has made a name for himself as a haematologist and cancer

specialist, an organiser of international oncology meetings and a biological scientist. He cites as his greatest contributions the founding of Luxembourg's largest cancer and blood disorders research charity, the Fondation de recherche cancer et sang, and launching, together with Eric van Cutsem from Leuven (Netherlands), the very successful World Congress on Gastrointestinal Cancer, which met for its 11th session this June.

Dicato, who has worked for more than 30 years at the Centre Hospitalier Luxembourg (CHL), has become known in oncology circles as a sociable man. He is a natural raconteur, who derives evident enjoyment from the many colourful characters he has encountered in his wide-ranging career. His thumbnail sketches give the world of oncology a surprisingly quaint old-fashioned charm, somewhat at odds with the high-tech reality of the modern medicine and science he practices.

Mario-Antoine Dicato was born in June 1942, in the Grand Duchess Charlotte Maternity Hospital, Luxembourg, whose building (since incorporated into the CHL hospital site) is directly visible from his office window. "So it seems I've spent virtually all my



life in the CHL,” he jokes. “I’m now lobbying to introduce a geriatrics unit to the site.”

As his name indicates, Dicato is of part Italian descent – his father’s family emigrated to Luxembourg from Italy at the end of the 19th century to work in the rapidly expanding steel industry. But he views himself as a Luxembourger through and through, with the multilingual education of his country.

Prior to school he spoke Luxembourgish, the local dialect, then at primary school he learnt French and German. At secondary school English came in as a third language, with students spending alternate years studying different subjects in French and German. “In Luxembourg, what really influences your operating language is where you go to university. Since I studied in the French-speaking part of Switzerland, I’ve ended up more proficient in French.”

From his father, Jean, a business man running a successful clothing business, he gained a sound financial grounding. “I’ve never been allergic to a balance sheet,” he says, adding that this has proved surprisingly useful, not just in his medical career –

when appointed director of CHL – but also for running his cancer charity and in his role of treasurer of the European Society for Medical Oncology (ESMO).

Dicato recalls carefree school days, where he spent his time “working, playing tennis and chasing girls”, and seems not to have been overly taxed by academic studies. With the strong influence of the steel industry in Luxembourg, he initially registered to become an engineer, then at the last moment switched to medicine. The reasons for this change of mind, he says, are lost in the mists of time. “I can’t remember what made me choose medicine. I could make something up about how I wanted to help humanity, but I’d be lying to you,” he says with disarming candour.

Luxembourg at this time had no medical school, so he chose to study in Lausanne, Switzerland, principally because he sensed “the lake and skiing opportunities” presented the possibility of more fun than his other options: Strasbourg and Bonn. As a student he “worked hard and played hard”, socialising and also

meeting his future wife Ingrid, an Austrian studying French literature.

By that time it was already fashionable to train in medicine in the US, so in 1971 the newly married Dicato set off to start his residency in internal medicine at the University of Pittsburgh, thereafter subspecialising in haematology at Yale and Harvard. He particularly appreciated the excellent teaching offered by the American system. "In the first year as an intern you have to work like a slave, being on call every three nights. But then as a resident and fellow the system starts to offer something back to you, providing an excellent teaching programme with regular personal seminars from senior people."

From the patient's perspective he was less taken by the system, objecting to the practice of two wards – one for patients with health insurance and one for those without.

Early on Dicato was attracted to multi-organ specialties, choosing to focus on haematology. "Bio-

logically, I thought that multi-organ problems were more interesting, and offered the opportunity to combine clinical and laboratory medicine," he says.

He got involved in early trials, looking at treatment protocols in leukaemia and lymphoma, and also undertook some basic science research, looking at haemostasis in artificial lungs and the contribution of different diets to atherosclerosis in pigs.

Peppering his conversation with anecdotes about the characters he encountered in the US, Dicato recalls the Boston bureaucrat responsible for the local medical licensing, who'd never heard of Luxembourg. "I think he thought I'd made my qualifications up. But once he'd checked out my credentials he told me that from then on the state of Luxembourg existed in Massachusetts," he says.

The intention had always been to stay in the US, but in 1976, quite out of the blue, Dicato was approached by a committee from Luxembourg that had been established to head hunt staff for a new teaching hospital, known as the Centre Hospitalier Luxembourg. The committee, who were on the prowl for doctors originating from the Grand Duchy, offered him the post of head of haematology/oncology. This was to be the first public hospital in Luxembourg to be run by the city and the state, as opposed to a religious order.

A major contribution. Dicato sees cofounding the World Congress on Gastrointestinal Cancer as one of his great achievements. He is pictured here at the 9th World Congress in 2007, with the other cofounder, Eric Van Cutsem (far right), Nobel prize winner Aaron Ciechanover (centre), and former ASCO president Margaret Tempero (next to Ciechanover)



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A SEDUCTIVE OPPORTUNITY

Dicato had to make the career-defining decision of whether to stay in the US or return to Europe. “In the end I chose CHL. It offered the opportunity to start everything from scratch and make visions become a reality for the newly hired staff – an enormously seductive offer,” he remembers.

Dicato moved back to Luxembourg in 1976 to start working at the CHL. But the new hospital was not set to open until the following year, so for a while he worked in private practice as a haematologist, using a spare room in his parents’ house that his father had used to dry hams. Prior to his return most haematology patients had needed to travel abroad for treatment, so he was not short of work. Evenings were spent preparing for the opening of the new hospital.

“Every concept had to be debated, because the staff had returned from many different medical systems, and we all had conflicting ideas about how things should be done. But it provided the opportunity to be creative and put our own stamp on the set up,” he says.

The CHL finally opened on 1 January 1977, and Dicato set about establishing his practice, treating haematology and cancer patients. “I particularly remember my first patient who was diagnosed with leukaemia after a consultation for flat feet, and the second patient, a Jehovah’s witness, who said we could donate her white blood cells to anybody so long as they weren’t another Jehovah’s witness.”

In 1979, two years after the opening of CHL, Dicato heard on the radio that he had been appointed director of the hospital. “It was all very strange – the post had been advertised, and I’d asked for the job description, but never got round to submitting my cv,” he says, modestly adding that there were unlikely to have been many other candidates. “The job had gone through three directors in two years and had a terrible reputation.”

The following six or seven years were extraordinarily busy. Determined to keep his hand in treating patients, Dicato worked over 80 hours a week, juggling

his administrative duties with clinical work. At home with three small children – Philippe (born 1977), and twins Christian and Jean Marc (born 1978), there was no respite.

MOVING ON

Becoming director at the tender age of 36 was like the film *The Curious Case of Benjamin Button*, giving Dicato the sense of living his life in reverse. “At that stage in life most doctors focus on their clinical careers. It would have been a much more suitable post for someone just coming up to retirement,” he says. “At first it was fascinating – building still going on, lots of staffing issues and administrative problems to be sorted.”

One of the first things he did was to get a CT scanner, at a time when they were scarce. Together with a colleague who was very active in interventional radiology, he recruited a large number of patients, both local and referred from abroad. But three years down the line everything was on track and the job became extraordinarily routine. “When I found myself doodling in meetings, I realised this just wasn’t what I’d gone into medicine for,” he says. Before resigning from the post of director in 1986, he made sure that he got everything he needed in place for the hospital and its haematology-oncology department.

Dicato’s theme of serendipity recurs in the founding of his cancer charity. In 1978, Jean Pierre Wies, the husband of a melanoma patient who had died, walked into his office with a case load of money. “Piling about €5,000 on my desk, he told me that it had been donated in memory of his wife and that he wanted it to be used for my research,” says Dicato, who underwent a steep legal learning curve on how to set up a medical charity within one day.

Today with an annual budget of €2.0 million and 21 full-time researchers, the Fondation de recherche cancer et sang is the largest cancer research charity in Luxembourg. Focusing on the biology of cancer, the charity initially supported external research, but then in 1985 it took the step of setting up its own labs.

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Revolutionising the fight against cancer and malaria. In March Dicato teamed up with malaria expert Pierre Lutgen, for a speaking tour of Peru to raise awareness and understanding of two of the country's biggest health challenges. They are pictured here in the Congress in Lima, with their host Michael Urtecho MP in the centre

Dicato rose to the challenge of finding laboratory premises, starting off above a friend's rubber factory (complete with the pervading smell of rubber). He later found space at the university and now the labs are located at a new hospital, soon to be moved once again to expanded facilities.

Dicato's research interests have been extremely varied, getting him into his fair share of scrapes. In the mid '80s he was involved in antiemetics, treating chemotherapy side-effects with marijuana acquired from custom seizures of trains arriving from Amsterdam. "Not liking the idea of patients walking round the hospital corridors smoking joints, we put our culinary skills to the fore and baked batches of cookies and omelettes with marijuana, then tried producing tea that could be aliquoted in small amounts," remembers Dicato, who eventually managed to formulate some capsules.

Major research themes have included the genetics of multi-drug resistance, the role of TNF alpha and NF Kappa B signalling pathways in cancer, mechanisms that induce apoptosis, and screening natural products to see whether they induce apoptosis. Dicato has always played an active role in these projects, having his name on many of the papers.

In 2001 he established a colorectal tumour bank, with samples including tumour, normal mucosal cells, blood cells and plasma. Using material from the tumour bank, he is now involved in a project looking to see whether there are differences in the methylation of specific genes involved in the development of colorectal cancer.

Dicato is sceptical of the idea of a cure for cancer emerging in the foreseeable future. "With cancer we are dealing with mutation, and since this biological phenomenon is necessary for evolutionary progress and survival, there's likely to be little that we can do to overcome it. Probably the best hope we can have is to transform cancer into a chronic disease," he says. In some instances, like chronic myelogenous leukaemia and myeloma, life expectancy has massively improved with the newer non-chemotherapy-type drugs. In myeloma – where the median age of diagnosis is around 70 – the latest therapies, thalidomide, lenalidomide and bortezomib (and others in the pipeline) will further improve treatment, giving a good chance that patients will live normal life spans, with their disease still being present, but controlled.

THE PUBLIC FACE OF CANCER

Dicato has whole-heartedly thrown himself into fundraising for the charity, enjoying a lively media career, with regular radio and television interviews, and a speaking schedule that takes him to village

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cultural centres all over the country. He has even overcome stage fright to perform on a popular celebrity cook show, rustling up an impressive dish of veal kidneys flambéed with cognac, and raising money for the research charity in the process.

Another role has been that of conference impresario, identifying and plugging the gaps in oncology meetings in Europe. Conference organisation, one cannot help feel, provides the perfect fit for his skill set, requiring a talent for networking and expert clinical knowledge. Together with Eric Van Cutsem, he has been a key player in the ESMO World Congress on Gastrointestinal Cancer, which now lays claim to being the world's largest GI conference, with 3,500 attendees.

Originally the idea had been to hold a small meeting in Luxembourg, “But as it grew, we were forced to go further afield to find a suitable venue,” he says. “The beauty of the World GI Congress is that we don't run any parallel sessions, which avoids the frustration of delegates having to make choices. The corollary is that the programme is dense but the feedback we get from participants is excellent.”

In ESMO, Dicato has been active as treasurer and also chairs the international symposia, launched in 2006, to cover ‘orphan’ areas – “neglected aspects of cancer that are important for treating physicians, but are not always of particular interest to the pharma industry,” he says. Themes so far have included sarcoma, GIST, supportive care, immunology in cancer, testicular cancer and nutrition and cancer.

A natural alliance. With Professor Aguirre, who researches natural products for medical uses at the medical research institute in Medellin, Colombia. Dicato has a long-standing interest in this area of research – and was well impressed by Aguirre's massive pet piranha

Dicato retired from his position of head of internal medicine in 2006, but has no plans to give up his clinical commitments – in Luxembourg there is no legal age limit for doctors. “I'm freed from administration, but still able to cherry pick the things that really interest me,” he says. Greater leisure allows him more time for socialising, but he is kept busy by extensive lecture tours, which have taken him to every continent – most recently South America.

Every week Dicato goes swimming with a few old school friends, and every few months the group is joined by their wives for weekend cultural-gastronomic trips. “As a group we first got together about 15 years ago, when one friend had acute leukaemia and the others turned up to donate platelets,” he says.

Next on the agenda is a lecture tour around Asia, where he will be speaking about supportive care, with particular emphasis on antiemetics, cytokines and coagulation. No doubt the experiences will be great fun, and provide grist to his anecdote mill, stocking him up with fresh stories to keep his many friends entertained.

