Serge Renaud: from French paradox to Cretan miracle

Now in his 68, Serge Renaud has been challenging dogma and winning scientific bets for more than 50 years. As a student in Montreal, Canada, in the 1950s, Renaud showed in a fortnight that an experimental animal polyarthritis—held for 2 years to be stress induced—was caused by an infectious agent. But what he is best known for is his work on the link between wine, diet, and thrombosis.

“If I hadn’t lived with my grandparents and great-grandparents on a vineyard near Bordeaux, perhaps mis idea wouldn’t have occurred to me. When you see people reach the age of 80 or 90 years, who have been drinking small amounts of wine every day, you don’t believe wine in low doses is harmful”, says Renaud.

Renaud started his medical training in France in 1949, but realising that he wanted to do research, he moved to Canada 2 years later. “Research was something you could hardly earn your keep with in France”, he explains. In Canada, the “incredible coronary mortality” made a deep impression on him, but the concept of wine’s benefits came later. In 1970, Renaud heard how, in the Framingham study, low-dose alcohol had protected against death from coronary heart disease. This result was not published for a while, he recalls, because “the [US] National Institutes of Health feared it might have fired me.”

In 1973, Renaud returned to France to investigate the behaviour of platelets in animals and people. He found that platelet aggregation was reduced in rats that had been fed alcohol. On alcohol withdrawal, there was a rebound effect and the platelets became stickier than normal. “The human corollary of this is ischaemic events after binge drinking”, he notes. In French and British farmers, platelet aggregation also decreased after low doses of alcohol, but in the French farmers there was no rebound effect when alcohol (wine) was withdrawn. After further study, Renaud reported that alcohol causes a dose-dependent inhibition of adenosine-diphosphate-induced platelet aggregation, as does aspirin. “Aspirin and alcohol share effects and mechanisms”, he noted in 1990.

Then, in 1991, Renaud was asked on US television for his explanation of the “French paradox”—the lower-than-expected coronary mortality in France. “Low-dose alcohol consumption”, he replied. Renaud stressed then, as he does now, that alcohol is a hazard except at low doses, but the US Administration demanded that he justify his comment. “That is how my paper on the French paradox, written with Michel de Lorgeril and published in the Lancet, originated. Had my results not been convincing I think INSERM [Institut National de Santé et de la Recherche Médicale, Renaud’s employer] would have fired me.”

Renaud kept his job but not everyone agrees with his ideas about the French paradox. “Coronary incidence data now deny there is a French paradox”, notes Pierre Ducimetière (INSERM, Villejuif, France). The lower coronary mortality in France compared with other countries “is a consequence of different ways of cooking coronary mortality”, he asserts, not a view that Renaud agrees with.

Renaud’s interest in how table habits affect health does not stop with alcohol. “More than almost any other investigator, Renaud has helped us appreciate the role of diet in coronary heart disease, pointing out how dietary factors affect its development other than through their effect on blood cholesterol”, says R Curtis Ellison (Boston University, MA, USA). This side of Renaud’s work waned that “the extraordinary [Lyon] protective effects have been corroborated in other studies. Ducimetière warns that “the extraordinary [Lyon] results await confirmation”.

Renaud is now retired but has yet another diet-related hunch: that the Cretan diet Will prevent arrhythmias, an idea prompted by the reduction in ventricular fibrillation in the Lyon study. Summing up his life’s work, Renaud says he has made him “wonder about the origins of civilisations. It is intriguing that ancient Asian and Mediterranean civilisations used natural oils in cooking—olive oil with similar fatty acid compositions”. And because of his belief in ancient wisdom when it comes to diet and health, Renaud ends his book Le régime santé (Odile Jacob, Paris, 1998) with a warning: “Don’t look for a pill that replaces [the Cretan diet]. There is no such thing.”

Bruno Simini