

## EDITORIAL

## Climate change in wine and haematology



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*'On a farm the best fertilizer is the master's eye'* Pliny the Elder. AD 23/24 - AD 79. Roman author, natural philosopher and military commander. Figure 1.

I suppose it depends on the circumstances of the gathering or to whom you are talking, but many of us think of climate change activists as anti-establishment individuals who are badly dressed, wear tattoos, and probably wear sandals if indeed, they wear any attire on their feet! On the other hand, they may dress and sound like scientists or as the debate progresses, they may wear business suits and gentlemen may even wear a tie. In other words, the stereotype is changing and climate change believers are becoming more main – stream. Whatever your belief about the factors contributing to climate change there is little doubt that the climate is changing.

There have been a number of effects on grape growing and wine making and I have written about the adverse effects of sudden extreme weather and its putative effect on stem cell donors [1]. However, happily the recent volcano in Iceland does not seem to have had any adverse effects on donation. When considering the effects of climate change on wine, a number of issues need to be considered: the effects on ripening of different grape varieties, changes in fashion/taste of the consumer. Other, perhaps broader considerations include reduction in the amount of flying/driving time utilised by consumers, as pointed out by Chukan Brown and Nicholas [2]. and the use of lighter packaging to reduce carbon generation.

Pinot Noir Fig. 2 is a good example which, although synonymous with Burgundy, Germany contains the largest number of vines in the world. Pinot Noir is also grown in Oregon (USA), California, Germany and Australia, among other areas of the world. The grape is tricky to grow, an earlier ripener and therefore subject to spring frost. It also has a tendency to mutate frequently [3]. Happily, as far as one can tell, climate change does not seem to have a detrimental effect on the pinot noir grape. In areas where forest fires have occurred, smoke taint may be a problem, but many wine farmers had already harvested their grapes before the fires, so in some ways they were lucky. One of the putative benefits of climate change in the harvesting of pinot noir in the south of England [4]. Of course, many makers of sparkling and many Champagne houses have always added a little pinot noir to their chardonnay when making champagne or sparkling wine (method champenoise). In spite of climate change the scenery in Tuscany with its ubiquitous cypress trees Fig. 3 has remained intact. As Barbara Widmer, owner of the vineyard La Brancaia in



**Fig. 1 Pompeii.** Pliny the elder died in Pompeii. Some say he was overwhelmed by the fumes from Mt. Vesuvius and others claimed that he died from natural causes. Roman fresco of Venus and Mars Casa di Marte from the 'Casa di Marte e Venere' in Pompeii Museo Archeologico Nazionale, Naples, Italy. Public Domain. Source wikipedia.

Tuscany says: *There is no standard year anymore. The weather varies from extreme heat/dry to cool and wet. Flexibility and adaption are crucial'* (personal communication).

What has climate change to do with haematology? Not very much, it seems, other than extreme weather events [5]. As yet there are no adverse effects of the recent volcano in Reykavik, Iceland and hopefully there will be no reports of adverse weather effecting the treatment of haematological malignancies. Haematologists involved in the treatment of haematological malignancies have had to become 'minor experts' in the diagnosis and treatment of haematological malignancies.



**Fig. 2 A bottle of Romanee-Conti.** One of the most expensive wines in the world. Creative Commons Attribution-Share Alike 3.0 unported licence. Source Wikipedia.

A recent report from Jacobs [6] suggests that climate change indeed has an effect of emerging infections in blood transfusion. Ever since the transmission of HIV by blood transfusion the awareness of the possibility of spreading infectious diseases has increased. Malaria, West Nile and Zika are screened for but happily COVID-19 has not yet been reported as transmitted by blood transfusion. It is clear that the incidence of Malaria, Babesia disease and Lyme disease have been increased by increasing temperatures universally.

Whatever your belief about climate change it is clear that emerging infectious diseases are influenced by rising temperatures and migration patterns worldwide. It seems the human migration is more prevalent now than at any time in the past. As yet there don't seem to be catastrophic effects on wine production but the requirement for those involved in blood transfusion to be even more vigilant remains.

In the meantime enjoy a glass of wine and try to avoid blood transfusion, if possible.

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**Fig. 3 Cypress trees on a beautiful Spring evening in Tuscany.** Photograph by Shaun McCann.

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## AUTHOR CONTRIBUTIONS

SM is the sole author and responsible for all the ideas and writing.

## COMPETING INTERESTS

The author declares no competing interests.