

## Policy Brief Cover Letter

Dear \_\_\_\_\_,

Hello, my name is Iris Huang, and I am writing on the behalf of the Taipei American School International Genetically Engineered Machines (iGEM) team. We are currently working on a project investigating alcohol intolerance due to ALDH2 deficiency in Taiwan. ALDH2 is an enzyme involved in alcohol metabolism which breaks down acetaldehyde to acetate. While researching for our topic, we discovered that Taiwan has the largest ALDH2 deficient population in the world, with approximately 47% of the Taiwanese population being deficient in the ALDH2 enzyme. ALDH2 deficiency, thus, results in a buildup of acetaldehyde, a Group 1 carcinogen, with ALDH2 deficient people being at greater risk of developing head, neck, and esophageal cancers. Given the negative health implications of ALDH2 deficiency, we were then curious to see how well-known this issue is in Taiwan, and we found that ALDH2 deficiency is not a well-known issue among the general population despite the high percentage of ALDH2 deficient people.

Hence, we then looked at policies that were in place to educate the public about alcohol consumption and ALDH2 deficiency and their ramifications on health, and we found that little attention has been paid to this matter in terms of policy and regulation. For example, unlike cigarette health warning labels, alcohol products lack similar rigid health-oriented labels, despite having similar detrimental impacts on health.

Thus, this policy brief brings to attention the issue of alcohol intolerance due to ALDH2 deficiency, as well as its various health implications. Looking at policies which are already in place, this policy brief suggests using such policies in a different way in an attempt to make a greater impact on informing citizens of the adverse health effects of excessive alcohol consumption.

We would be extremely grateful if you took a look at our policy brief, and we hope you take into consideration our policy in the development of future regulations. We would also love to hear any feedback on our policy.

Thank you for considering this policy brief about an important health issue.

Sincerely,

Iris Huang

您好！

我是 Iris Huang, 代表台北美國學校的 iGEM team 致信給您。我們目前在研究台灣人酒精不耐症和乙醛去氫酶缺乏症的關聯。乙醛去氫酶是人體內一個專門代謝酒精，將乙醛分解成醋酸鹽的酶。我們在一些文獻探討中得知台灣有 47% 的人口都有乙醛去氫酶缺乏症，是世界比例最高的族群。乙醛去氫酶缺乏症會造成乙醛在體內堆積，也就是說患有乙醛去氫酶的人得到頭、頸、食道癌的機率會更高因為乙醛被國際癌症研究機構歸為一類的致癌物。在得知乙醛去氫酶缺乏症對健康的負面影響後，我們就很好奇這個問題在台灣有受到多少重視。結果卻發現雖然台灣有將近一半的人口都有這個缺乏症，卻很少人知道這個問題。

當我們在找政府對於呼籲大眾飲酒、乙醛去氫酶缺乏症和他們對健康的影響的相關條例時，卻發現這個問題在政府的政策和法規中也很不被重視。例如雖然飲酒和吸菸對身體健康有類似的負面影響，酒瓶上卻沒有類似菸包上呼籲大眾少喝酒的標籤或警告對身體危害的標示。

因此，我們希望我們的政策簡要可以讓乙醛去氫酶缺乏症所造成的酒精不耐症和健康上的負面影響受到多一點的重視。看過現有的法規後，我們寫得政策建議政府可以用不一樣的條例或方式讓大眾更知道飲酒過量的負面影響。

我們會很感謝您如果你可以讀我們的政策簡要，希望您可以考慮結合我們和未來的政策在一起。我們也很希望您  
可以給我們的政策一些回饋和意見。

謝謝您花時間讀過這個攸關國民健康的政策簡要。

Iris Huang 敬上