The 2005 movie *Thank you for smoking*, although being satirical in its style, actually mixed the fabricated story with a large number of historical facts, including the existence of Academy of Tobacco Studies funded by tobacco companies for conducting smoking research (<a href="https://en.wikipedia.org/wiki/Tobacco\_Institute">https://en.wikipedia.org/wiki/Tobacco\_Institute</a>), and the Tobacco Master Settlement Agreement (MSA) in 1998 which eventually cost > 200 billions of US dollars from the manufacturers just for the first term of twenty-five years (<a href="https://en.wikipedia.org/wiki/Tobacco\_Master\_Settlement\_Agreement">https://en.wikipedia.org/wiki/Tobacco\_Master\_Settlement\_Agreement</a>). In addition, the fact that the tobacco companies had tried in every attempt to promote smoking, just like what happened in the film, was also true [1]. Smoking is arguably the most famous example of scientific research that might become distorted by profiting purposes.

Nowadays with MSA in effect, at least a substantial number of people hold attitude against cigarette smoking. But what about something that appears probably less harmful? The Editorial Commentary on Ref.[1] used soap as an obviously contrasting example just in one sentence [2]. Yet instead in this homework we shall discuss another somewhat debatable target: The electronic cigarette, or e-cigarette. Do you think smoking e-cigarettes should be prohibited, either strongly by law or mildly by regulations (e.g., on campus only)? Why or why not? In order to answer this question, I guess that you perhaps need to know first what the e-cigarette really is (<a href="https://en.wikipedia.org/wiki/Electronic\_cigarette">https://en.wikipedia.org/wiki/Electronic\_cigarette</a> in English if you prefer, or https://zh.wikipedia.org/wiki/電子煙 in Chinese).

Obviously (if you have indeed read through the wiki pages I listed above, which I know is unlikely true), whether smoking e-cigarettes is harmful to the smokers and/or to the environments is still under debate. But what was encountered in the tobacco history has already appeared in the scientific literature: The e-cigarette companies started to provide funds to sponsor numerous research studies related to health issues regarding e-cigarette smoking. Since there are too many of them, I just list one review for you [3]. Read carefully particularly its Discussion section regarding the interpretations of results from past publications (by the way, this attitude is what I would like you guys to have when writing your Homework #1 and #2). But then, a letter submitted one year later was published in the same journal in 2016, basically saying that the original authors might be somewhat too ideological [4]. Certainly the original authors responded [5].

In addition to your personal suggestion on whether e-cigarette smoking should be prohibited, you are also required to carefully read through the above documents to tell me what your belief is in terms of the validity of Ref.[3], taking into account what were expressed in Ref.[4] and [5]. Then, tell me what your attitude would be when facing unfamiliar journal papers after you become a graduate student.

You now know that the scale of this homework could vary to a great extent — from something very simple to one that is endlessly huge. Keep in mind that this could be what you need to face on an everyday basis once you enter the academic field as your lifetime career. So, try to face it seriously and treat it not just as a 10%-worth homework.

Thank you for smoking 這部 2005 年的影片雖然是以諷刺手法在陳述,但其實揉合了許多真實的史實在內,包括由菸草公司贊助吸菸研究經費的單位(維基百科網頁 <a href="https://en.wikipedia.org/wiki/Tobacco\_Institute">https://en.wikipedia.org/wiki/Tobacco\_Institute</a>),以及 1998 年簽署的菸草和解協議(<a href="https://en.wikipedia.org/wiki/Tobacco\_Master\_Settlement\_Agreement">https://en.wikipedia.org/wiki/Tobacco\_Master\_Settlement\_Agreement</a>;前二十五年超過兩千億美元以上的和解金額)等。此外,如影片中所述菸草公司不斷設法推廣吸菸,也是不爭的事實 [1]。吸菸或許是人類史上「營利目的扭曲科學研究」最為出名的例子了。

隨著菸草和解協議的生效,如今至少已有大多數人對於吸菸抱持反對立場。但如果是貌似比較無害的產品呢?緊接著刊登在參考論文 [1] 之後的一篇主編評論用了肥皂作為極端的反例,並且只有一語帶過 [2]。而在本次作業中,我們探討的是另一個更具爭議性的題目:電子煙。你覺得應該經由法律強制明定、或類似校園內自行規範禁止電子煙嗎?為什麼?要回答此問題,你或許先得了解電子煙究竟是什麼(英文版請見 https://en.wikipedia.org/wiki/Electronic\_cigarette,中文版維基百科網頁則請見 https://zh.wikipedia.org/wiki/電子煙)。

很明顯地(如果你真的看完維基百科應該就會很明顯,不過這已經未必成立了),電子煙對於吸菸者或周遭環境究竟是否有害,仍然在爭辯中。可是過去在菸草界所發生的歷史,如今在科學文獻中又已重演:電子煙製造商已經開始提供資金贊助電子煙相關的健康研究。相關文獻實在太多,此處僅列出一篇回顧性論文[3]。其中「討論」章節著墨在過去研究結果的詮釋上,尤其值得細讀(順道一提,這篇的撰寫態度,就是我個人心中希望同學們從作業一與作業二學習到的理想方式)。然而,發表一年後,讀者投書就來了,而這個在2016年刊登在同一期刊的投書基本上是覺得原作者幾乎有點過於意識形態了[4]。當然,原作者也回應了[5]。

在本次作業中,除了表達你個人對於電子煙是否該立法禁止的理由外,也請你在仔細閱讀參考論文 [3] 並且參考 [4] 與 [5] 之後,陳述你個人對於參考論文 [3] 中各項結論成立與否所抱持的信念。然後,再告訴我如果有一天你成為研究生走上學術之路後,你該用什麼樣的態度去面對還不熟悉的期刊論文。

到這裡,你大概看得出來本次作業的規模可大可小:也可以簡單應付過去、 也可以深到極難回答。請記得一旦踏入學術領域作為自己一輩子的志業之後,這 可能是你每天都要面對的事情。因此,請試著認真面對,盡量不要把它當成一個 只佔了學期成績 10% 的作業。

## References (pdf files uploaded in NTU COOL)

- Jackler RK, Ayoub NF. 'Addressed to you not as a smoker... but as a doctor': doctor-targeted cigarette advertisements in JAMA. Addiction 2018;113:1345-1363.
- Gardner MN. Commentary on Jackler & Ayoub (2018): Doctor-targeted cigarette advertisements and conflicts of interest in historical context. Addiction 2018;113:1364-1365.
- 3. Pisinger C, Døssing M. A systematic review of health effects of electronic cigarettes. Prev Med 2014;69:248-260.
- Kosmider L, Anastasi N. Ideology versus evidence: Investigating the claim that the literature on e-cigarettes is undermined by material conflict of interest. Prev Med 2016;85:113-114.
- 5. Pisinger C. Reading the conflict of interest statement is as important as reading

the result section: Response to the letter by Dr. Kosmider: ideology versus evidence: investigating the claim that the literature on e-cigarettes is undermined by material conflict of interest. Prev Med 2016;85:115.

Do not exceed 10 double-spaced A4 pages. Deadline for Homework #3: Wednesday 2023/11/22 9:00pm.