

## **Abstract**

# Benzopyrene, smoke and money: The perfect Philip Morris International recipe for toxic scientific research

In 2023, a concerning case reminiscent of classic tactics employed by the tobacco industry has come to light, exposing Philip Morris International's (PMI) continued influence on scientific research. The focus of PMI's efforts appears to be the promotion of their 'new' and 'innovative' tobacco products, casting a shadow over the credibility of these claims. Our investigation aims to unveil the extent of PMI's financial sway over select Swiss researchers, revealing that the targeted involvement of PMI employees in research is not an isolated incident. We conducted in-depth research to expose the meaning and ramifications of this new case of tobacco industry manipulated research.

# An obscure title: a new example of a smoke screen!

The study in question, titled "Quantification and Mapping of Alkylation in the Human Genome," conducted by the ETH Zurich's Department of Health Sciences and Technology, initially appears unrelated to tobacco. However, a closer examination reveals PMI's influence. The publication focuses on benzopyrene, a known carcinogen in tobacco smoke, and its impact on DNA modification. ETH Zurich, one of the top world technology universities, acknowledged collaboration with PMI scientists and financial support from the tobacco company for this study. The study was co-financed by the Swiss National Science Foundation (SNSF), but the SNSF was never informed that PMI was co-funding the research, therefore the ETH research team violated explicit SNSF rules.

#### **Language and Claims in Tobacco Industry**

PMI has shifted its narrative, claiming to aim for a "smoke-free world" by promoting new tobacco products like IQOS. These products are marketed as "reduced risk" and "smoke-free," but independent scientific evidence to support these claims is lacking. PMI's dual narrative – harm reduction for public health policy and continuing as a leading cigarette manufacturer for investors – is contradictory and brings PMI's intentions into question. The ETH study allows PMI to reinforce their biased claims about their "innovative" heated tobacco products.

# The Research's Ethical Quandaries

The involvement of PMI employees in designing and supervising the study raises doubts about its independence. The extent of PMI's financial contribution remains undisclosed, further obscuring the research's impartiality. The lack of clarity on the necessity of PMI's involvement in this study adds to the ethical dilemmas. At the same moment of this publication, another almost identical article was publish by the same mix of authors from ETH and PMI, adding to the ethical confusion. This ETH/PMI collaboration raises significant ethical concerns regarding transparency, conflicts of interest, and the true intent behind the research.

## **Previous Collaborations and Implications**

From our research, it also appears that there have been previous collaborations between the lead researcher and PMI, including publications co-financed by PMI and prominently displayed on their website. This enduring relationship also contribute brings the researcher's impartiality into question, especially considering PMI's history of manipulating scientific findings.

## The Need for Transparency and Independence in Research

The case at ETH Zurich underscores the crucial need for scientific research to be transparent and independent, criteria that cannot be fulfilled when research is under the influence of industries with vested interests. This situation highlights the ethical responsibility of researchers and institutions in upholding

scientific integrity. It also emphasizes the importance of scrutinizing industry-funded research to safeguard public health and maintain the integrity of scientific discourse.

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