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Compilation of in vitro studies evaluating the impact of exposure to aerosols from heated tobacco products and an electronic vapor device on oral health and dental esthetics

Filippo Zanetti¹, <u>Alexander K. Nussbaum</u>², Anita Iskandar¹, Xiaoyi Zhao^{3,4}, Yanfang Ren³, Shoaib Majeed¹, Nikolai V. Ivanov¹, Manuel C. Peitsch¹, Julia Hoeng¹

¹Philip Morris International R&D, Philip Morris Products S.A., Quai Jeanrenaud 5, CH-2000 Neuchâtel, Switzerland; ²Philip Morris GmbH, Am Haag 14, 82166 Gräfeling, Germany; ³University of Rochester Eastman Institute for Oral Health, Rochester, New York, USA; ⁴Peking University School of Stomatology, Beijing, China

Introduction

Cigarette smoke (CS) causes serious diseases and has detrimental effects on human health, including oral health. Smoking can lead to ginpuistis, periodontisis, took hoss, and mouth cancer [1]. CS is also a risk factor for tooth discoloration. Pigmented compounds present in the particulate phase generated by combustion of tobacco may cause discoloration of dental hard tissues and restorative materials [2]. Switching from cigarette smoking to using reduced-risk products (RRP) has the potential to reduce the harm and dental esthetic concerns associated with smoking. However, rigorous scientific studies are necessary to demonstrate the potentially reduced distrimental effects of exposure to acrosofs from RRPs relative to those of exposure to CS. In this poster, we summarize the results of numerous *in vitro* studies that investigated the impact of exposure to acrosofs from different RRPs (2 headed tobacco products) [HTP] and 1 electronic vapor [e-vapo] product) on oral cell cultures and dental coloration. In addition, we present the results of subuy aimed a characterizing the chemical compounds associated with toth discoloration.



(C) Overview of the products investigated in the different studies. THS 2.2, Tobacco Heating System 2.2; CHTP 1.2, Carbon-Heated Tobacco Product 1.2; P4M3V1.0, e-vapor product using MESH[™] technology (Philip Morris International, Neuchâtel, Switzerland).

Figure 2. Dental discoloration studies and determination of chemical compounds associated with tooth discoloration.

(A) Human premote test restored with a composite resin filling (Files * Soprene Uita, ME SFE), S. I Paul, NN, USA) were exposed in the Vitrocell* 2448 exposure system to undited 344F CS or TH-S 2 acress(a finon 2) cigareties or tobacco sicks, respectively, [7] or to P4403 v1.0 aerosol 630 put/s per day) [8] fort 1215 days. Exposure to different betwarges (coffee, red wine, and soy stauck) for 56 min per day was also included in [8]. Tingular horizon businety waie (THS 2 2 abidy) and and way (PMMS V14) bash(b). Clock was bessed every 4.

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