FINAL PROGRAMME
& ABSTRACT BOOK

# 7th Summit Tobacco Harm Reduction

Novel products, Research & Policy

by SOHRE

**16-17 SEPTEMBER 2024** | VIRTUAL

**#NoSmokeSummit24**
**www.nosmokesummit.org**

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SOHRE International Association on Smoking Control & Harm Reduction

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STTACA
SOCIETE TUNISIENNE DE TABACOLOGIE ET DES COMPORTEMENTS D'ADDICTION

TobaccoIntelligence
Regulatory & market intelligence for alternative tobacco & nicotine products

# CONTENTS

# WELCOME NOTE

We are delighted to welcome you to the **7th Summit on Tobacco Harm Reduction: Novel products, Research & Policy,** is organized by SCOHRE, the International Association on Smoking Control & Harm Reduction, on the 16th and 17th September 2024, only virtually.

The 7th Summit–following the works of a very successful 6th Scientific Summit–aims to attract top researchers, clinicians, and scientists from diverse fields, from all over the world, to present and discuss their work and participate in a constructive dialogue to help come up with a better approach to the global burden of smoking.

This is the second consecutive year that SCOHRE address an open Call for Speakers to tobacco harm reduction and tobacco control experts or advocates; basic or medical science researchers, or scientists in other related fields, to express their interest in participating in the 7th Summit. We were happy to receive several propositions and to include them in the agenda.

SCOHRE recognize that harm reduction could make the lives of people better and invite scientists from multiple fields to present basic research and clinical evidence, thus contributing to the discussion that leads to "evidence-based policymaking" and fights misinformation.

In previous Summits it was established that, during the last 30 years, the prevalence of smoking has decreased steadily around the globe. However, as populations have grown, the total number of smokers has increased. There is increasing interest in Tobacco Harm Reduction as a tool to reduce the detrimental consequences of cigarette smoking to the human population of the planet. However, more data is needed for politicians and public health regulators to make informed decisions.

All these and many more will be discussed in the two-day virtual event on THR.

The objectives of the Summit are to offer opportunities for scientists of different countries to:

- Present, discuss, and challenge recent data related to the benefits and the risks associated with alternative tobacco product use among smokers and the association with switch and quit attempts.
- Discuss and debate on scientific, technological, medical, regulatory, legal and policy issues for advancing the technical capacity of the participating countries.
- Provide an environment where regulatory authorities and policy makers may present to the scientific and medical communities their prospective course of action.

The scientific programme of the Summit includes plenary and keynote lectures, as well as recorded oral presentations available on-demand, on the following specific topics:

Toxicology and aerosol chemistry || Preclinical evaluation || Epidemiology & Social Issues || Clinical Assessment and Harm Reduction || Public Health || Legal & Regulatory issues || Bioethics || Innovation & Novel Products || Smoking cessation || Educational & Behavioural issues in adolescence

Approved abstracts which are presented at the Summit are published in the Abstract Book, in the second part of this electronic booklet.

***The Summit's Organising Committee***

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Novel products, Research & Policy

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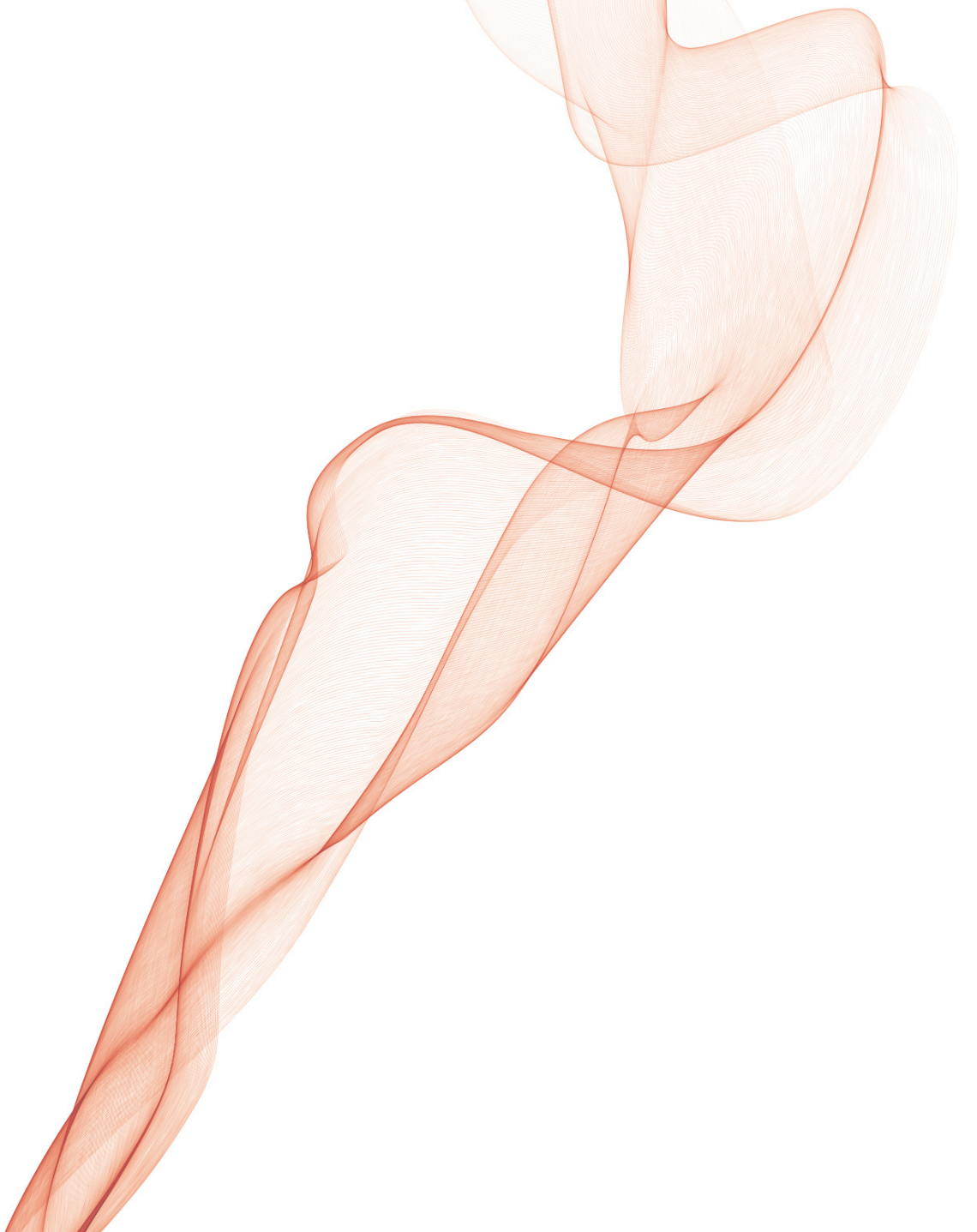
## FINAL PROGRAMME



# FINAL PROGRAMME

## MONDAY 16/09/2024

*Times Featured in CEST*

**09:30-10:30** **SESSION**
**Trends in THR Regulation - How the Future Looks Like**
Opening Remarks - Chair: ***Ignatios Ikonomidis***

Speakers:
- ***Louise Ross:*** England's National "Swap to Stop" Programme
- ***Marewa Glover:*** New Zealand's SmokeFree Ambition & How the Future Looks Like

**10:30-11:00** **BREAK**

**11:00-11:30** **KEYNOTE SPEECH**
**"Cognitive Behaviour Therapy in Smoking Cessation"**
Speaker: ***Solomon Rataemane***
Chair: ***Fares Mili***

**11:30-12:30** **SESSION "Call for Speakers"**
Chair: ***Konstantinos Farsalinos***

Speakers:
- ***Jeannie Cameron:*** Therapeutic Benefits of Nicotine – UK
- ***Muazu Elazeh:*** Media and Harm Reduction – Nigeria
- ***Jeffrey Zamora:*** Current situation of Harm Reduction – Alternatives to Smoking in Iberoamerica (Latin America, Spain, and Portugal) – Costa Rica

**12:30-14:30** **BREAK**

# FINAL PROGRAMME

**14:30-15:00** **KEYNOTE SPEECH**

**"The Case of Flavours in Tobacco Harm Reduction"**

Speaker: ***Konstantinos Farsalinos***

Chair: ***Anastasia Barbouni***

**15:00-16:00** **PANEL DISCUSSION**

**Prohibition or Regulation – Where is the Public Health Frontier?**

Chair: ***David Sweanor***

Speakers:

***Fernando Fernandez Bueno, Maria Papaioannoy, Sudhanshu Patwardhan, Eugeniu Cotelea***

# FINAL PROGRAMME

## TUESDAY 17/09/2024

*Times Featured in CEST*

**09:30-10:30** **SESSION**
**The Case of Nicotine Use - Behavioural and Clinical Data**
Chair: ***Angelos Hatzakis & Ignatios Ikonomidis***

Speakers:
- ***Konstantinos Kesanopoulos:*** Youth Smoking Trends in Greece: Analysing Adolescent Behaviours and Influences
- ***Kallirrhoe Kourea:*** Differential Effects of Heat-Not-Burn, Electronic and Conventional Cigarettes on Endothelial Glycocalyx

**10:30-11:00** **BREAK**

**11:00-11:30** **KEYNOTE SPEECH**
**"How to Price Our Lifestyle?"**
Speaker: ***Andrzej Fal***
Chair: ***Evanthia Sakellari***

**11:30-12:30** **PANEL DISCUSSION**
**Policy Frameworks for Promoting Public Health**
Chair: ***Andrzej Fal***
Speakers: ***Sharifa Ezat Wan Puteh, Piotr Karniej***

**12:30-14:30** **BREAK**

# FINAL PROGRAMME

**13:00-14:00** **Q & A Session with Abstracts' Authors***
Chair: ***Konstantinos Poulas***

**14:30-15:00** **KEYNOTE SPEECH**
**The regulatory impact of disposable vapes**
Speaker: ***Barnaby Page***
Chair: ***Konstantinos Poulas***

**15:00-16:30** **SESSION**
**SCOHRE: 10 Public Health Proposals on Smoking Control**
Chair: ***Lina Nikolopoulou***

****Video recorded Oral Presentations of the approved Abstracts will be available on-demand through the Summit's website www.nosmokesummit.org.***

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## SPEAKERS' LIST

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| | |
|---|---|
| **Anastasia Barbouni** | MD, MSc, PhD, Professor of Public Health and Disease prevention, Department of Public and Community Health, School of Public Health, University of West Attica, Athens, Greece |
| **Jeannie Cameron** | CEO, JCIC International, UKVIA, UK |
| **Eugeniu Cotelea** | MD, President of the non-governmental organization "Society of Substance Abuse Professionals", Republic of Moldova |
| **Muazu Elazeh** | Group Managing Director, LEADERSHIP Newspaper Group, Nigeria |
| **Andrzej Fal** | Prof. h.c., MD, PhD, MBA, FAAAAI, President Polish Society of Public Health; Head, Department of Allergy, Lung Diseases and Internal Medicine, Central Clinical Hospital, Ministry of Interior; Director, Institute of Medical Science, UKSW, Warsaw, Poland |
| **Konstantinos Farsalinos** | MD, MPH, Adjunct Professor, King Abdulaziz University, Saudi Arabia; Senior Researcher, University of Patras; School of Public Health, University of West Attica; Data & Media Lab, University of Peloponnese, Greece |
| **Fernando Fernández Bueno** | MD, MSc, Oncological Surgeon, Hospital Central de la Defensa Gómez Ulla, Madrid, Spain |
| **Marewa Glover** | Director, Centre of Research Excellence: Indigenous Sovereignty & Smoking, New Zealand |
| **Angelos Hatzakis** | MD, PhD, Professor Emeritus of Epidemiology and Preventive Medicine, National and Kapodistrian University of Athens, Greece |
| **Ignatios Ikonomidis** | MD, PhD, FESC, FAHA, Professor of Cardiology, Director of Echocardiography and the Laboratory of Preventive Cardiology, 2nd Cardiology Department, National and Kapodistrian University of Athens, Greece; SCOHRE President |
| **Piotr Karniej** | Assistant Professor and Director, Public Health Programme, WSB MERITO University, Wrocław, Poland |
| **Konstantinos Kesanopoulos** | Biologist, Special Academic Unit for The Study of Smoking Behaviour, Laboratory of Hygiene and Epidemiology, Dept. of Public and Community Health, University of West Attica, Athens, Greece |
| **Kallirrhoe Kourea** | MD, PhD, Academic Fellow in Cardiology, Medical School, National and Kapodistrian University of Athens; Smoking Cessation Clinic, 2nd Cardiology Department, Attikon Hospital, Athens, Greece |

# SPEAKERS' LIST

| | |
|---|---|
| **Fares Mili** | MD, Pulmonologist, Allergiologist, Specialist in addiction behaviors, President of the NGO "Societé Tunisienne de Tabacologie et des comportements d' addiction (STTACA)", Tunis, Tunisia |
| **Lina Nikolopoulou** | B.Sc. Ph.D., Managing Director MINDVIEW; SCOHRE Director, Greece |
| **Barnaby Page** | Editorial director, Tamarind Intelligence / ECigIntelligence / TobaccoIntelligence, UK |
| **Maria Papaioannoy** | Creator of Northumberland Women & President of Cobourg Toastmasters, Canada |
| **Sudhanshu Patwardhan** | MBBS, MS, MBA, FRSPH, Director, Centre for Health Research and Education, University of Southampton Science Park, Chilworth, Hampshire, UK |
| **Konstantinos Poulas** | PhD, Associate Professor of Biochemistry, Laboratory of Molecular Biology and Immunology, Department of Pharmacy, University of Patras, Greece |
| **Solomon Rataemane** | Africa regional Rep., World Association for Psychosocial Rehabilitation, Former HOD Psychiatry UFS 1998-2003, HOD Psychiatry SMU 2003-2019, Chair: Ministerial Advisory Committee on Mental Health, Chairperson MDB HPCSA 2020-2025, South Africa |
| **Louise Ross** | Clinical Consultant, NCSCT - Chair and Mental Health Lead, New Nicotine Alliance, UK |
| **Evanthia Sakellari** | Associate Professor, Department of Public and Community Health, University of West Attica, Athens, Greece |
| **David Sweanor** | Chair of the Advisory Board, Centre for Health Law, Policy & Ethics, University of Ottawa, Canada |
| **Sharifa Ezat Wan Puteh** | Professor of Hospital Management and Health Economics; Deputy Dean (Relation & Wealth Creation), Faculty of Medicine, UKM Medical Centre; Previous Head of International Centre for Casemix and Clinical Coding (ITCC), UKM Medical Centre, Kuala Lumpur, Malaysia |
| **Jeffrey Zamora** | President Asovape Costa Rica; President ARDT Iberoamerica |

ABSTRACT BOOK

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# CONTENTS



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## ORAL PRESENTATIONS

# PSYCHOLOGICAL TOBACCO ADDICTION

**Svetlana Valeryevna Gridneva**[1], Anna Ivanovna Tashcheva[2], Vladimir Nikolaevich Egorov[3]

OP01

[1]Department of General and Pedagogical Psychology, Academy of Psychology and Pedagogy, Southern Federal University, Rostov-on-Don, Russia
[2]Department of Personality Psychology, Academy of Psychology and Pedagogy, Southern Federal University, Rostov-on-Don, Russia
[3]Department of Biology and General Pathology, Don State Technical University, Rostov-on-Don, Russia

**Background:** According to the All-Russian Center for the Study of Public Opinion, the number of smokers in Russia has stopped decreasing, and the number of people not motivated to quit smoking has increased. An analysis of nicotine addiction treatments in Russia shows a need for new solutions to effectively reduce the number of smokers. Since some smokers are not motivated to quit and existing methods have been exhausted, an alternative solution using the harm reduction concept is necessary. Modern tobacco addiction therapy requires addressing personal psychological problems within an integrated approach.

The main tasks in treating tobacco addiction include collecting psychological and medical history, establishing mutual understanding with a specialist, increasing motivation, discussing goals, introducing the cognitive behavioral therapy (CBT) model, applying an individual CBT scenario, and using counseling algorithms in line with clinical recommendations.

**Material and Methods:** The study used theoretical analysis, psychodiagnostics, CBT, and the harm reduction concept.

**Results:** A clinical example involved a 52-year-old male patient with a 25-year smoking history (smoker index of 25 pack-years). Initially, a cardiologist assessed his nicotine addiction and motivation to quit smoking (Fagerstrom test, Prohaska questionnaire). Motivational counseling was provided, and he was referred to psychologists. Given his high nicotine dependence and low motivation to quit, he was offered reduced-risk products, specifically a tobacco heating system (THS). CBT based on the cognitive model aimed to reduce symptoms and improve quality of life and psychological flexibility. The patient eventually quit smoking and using THS. Ongoing dynamic monitoring and support are in place.

**Conclusion:** Tobacco addiction therapy should consider the altered reactivity of the body and each pathogenesis link for a comprehensive approach. Alternative nicotine sources should be restricted to minors, but adult smokers not motivated to quit should have access to less harmful products and information about these alternatives.

# ABSTRACT BOOK



## NICOTINE SUPPLEMENTS AND HEATED TOBACCO PRODUCTS FACE MEDIA BAN AND NEGATIVE BACKLASH IN KUWAIT

**Baron Kholood**

**Radiologic Science Department, Faculty of Allied Health, University of Kuwait; Al qabas Newspaper**

OP02

While awareness of the benefits and tactics to use heated tobacco products and nicotine supplements to reduce cigarette smoking is increasing in many parts of the world, in Kuwait this is definitely not the case. Any activity or articles that discuss these alternatives to harmful cigarette smoking are receiving vicious criticism and media ban in Kuwait. Those who dare to discuss them will face a strong wave of rejection, resentment and their ethics will be questioned.

The aim of this presentation is to discuss the obstacles and ban that a health reporter faced in Kuwait after starting to publish articles explaining the benefits of alternative smoking products. Hence, highlighting the bad reputation of these products, obstacles encountered, and to elaborate on the new tactics and strategies for dealing with these issues.

The writer will present in detail the scenario of events that started from publishing articles following the attendance of the "Cube" event by Philip Morris held in 8-10 May 2023 up to the event that led to being criticized and banned from discussing any issue relating to nicotine. In an attempt to get more information and local opinion about these products, the writer interviewed local and international physicians (namely, cardiologists, dentists, gastroenterologists and scientists). These articles were either rejected or modified to eliminate the positive information and the benefits of switching from cigarette smoking to nicotine supplements and heated tobacco products.

At the moment, there is a local media ban—at least in Al qabas media—from discussing any nicotine related products, while there is an encouragement to publish articles that show that these products and any nicotine products are more harmful than cigarettes.

In conclusion, there is a great need to discuss and establish a clear strategy and tactics to overcome the media backlashes in Kuwait.

# ABSTRACT BOOK



## ELECTRODYNAMIC FIELDS ARE REDUCING TOBACCO PRODUCTS TOXICITY - AN INNOVATIVE METHOD

**Konstantinos Poulas**

**Department of Pharmacy, University of Patras, Patras, Greece**

OP03

**Background:** The tobacco industry faces substantial challenges due to stringent regulations and increasing consumer demand for safer products. Despite advancements in reduced risk products (RRPs), traditional tobacco products remain the predominant form of nicotine intake globally and continue to cause serious health harm. Thus, further innovative solutions are warranted.

Herein we introduce a tobacco treatment method using Electrodynamic fields for all tobacco-derived products, including combustible cigarettes and RRPs that contain tobacco. This method could alter the emissions and modify the action of harmful substances found in tobacco products, potentially reducing health risks. Key benefits of this method include:

- Less Harmful Products: The method could effectively neutralize harmful substances, reducing health risks.
- Improved Taste: Enhances the sensory characteristics of tobacco products, improving consumer experience.
- Scalability: Integration into existing production processes and applicability both during manufacturing stages and to the final products post-packaging, ensuring consistent quality.

**Material and Methods:** The Electrodynamic Treatment Method employs a controlled external Electrodynamic Field to treat solid tobacco material, inducing subtle changes in physical and chemical properties to neutralize toxic substances. This non-invasive, non-intrusive method ensures minimal disruption to current processing and manufacturing protocols.

**Results:** Current research validates the method's efficacy through emission and toxicological assessments, showing:

- Reduced Lung Abnormalities: Treated tobacco showed a 60% reduction in emphysema and perivascular inflammation in rats.

OP03

- Reduced Toxic Emissions: Significant reductions in carbon monoxide (by 55%) and thiocyanates (by 50%).
- Decreased Oxidative Stress: A 65% reduction in oxidative stress biomarkers such as superoxide dismutase (SOD) and glutathione peroxidase (GPx).

**Conclusions:** These findings conclusively demonstrate that the Electrodynamic Treatment Method could reduce tobacco products' toxicity, creating a potentially less harmful product.

# ABSTRACT BOOK



## REVOLUTIONIZING TOBACCO HARM REDUCTION: SWEDEN'S BREAKTHROUGHS AND THE FUTURE OF ORAL NICOTINE, WITHOUT GENDER DISPARITIES

**Bengt Wiberg**

OP04

**EUforsnus international tobacco harm reduction movement; Stingfree AB**

**Background:** While many countries struggle to reduce smoking rates, Sweden's successful strategies in harm reduction offer a beacon of hope. This presentation underscores the critical need for innovative solutions to mitigate smoking-related harm.

**Material and Methods:** The author has conducted extensive research through studying published science, conducting his own consumer surveys, and performing a clinical dentist test among nicotine pouch-using dentists. A focal point of his research is the introduction of oral nicotine alternatives, particularly highlighting the pioneering patented Stingfree pouch technology. This innovative technology effectively addresses common deterrents associated with traditional nicotine pouches and snus, such as reducing the unpleasant burning sensation, gum irritation, and harm to the oral mucosa.

**Results:** Compelling results from a 2024 test involving Swedish dentists who switched from their regular nicotine pouches/snus to the Stingfree nicotine pouch for five weeks demonstrate significant improvements in the participants' oral health. The findings indicate the technology's potential to reduce widespread oral health issues linked to oral nicotine use, such as oral mucosal snus lesions, and to attract smokers to switch to these less harmful category products. Additionally, the author's research explores gender disparities in adopting safer nicotine products, with evidence showing a higher prevalence of use among males. Surveys and empirical tests reveal that the burning sensation and gum irritation are significant barriers preventing smokers from switching to smokefree oral products.

**Conclusions:** Scientific insights form the backbone of the arguments presented for promoting oral nicotine products as a less harmful alternative to smoking. The findings highlight their potential positive impact on public health and emphasize the necessity for ongoing research and innovation. By analyzing the reasons behind gender

OP04

disparities in the adoption of safer nicotine products, the author offers insights on how to make harm reduction products more appealing and accessible to all demographics. This research underscores the importance of innovative solutions in the global effort to reduce smoking-related harm.

# ABSTRACT BOOK



## REPORT OF THE PROVINCIAL PUBLIC HEARINGS ON THE DRAFT TOBACCO PRODUCTS AND ELECTRONIC DELIVERY SYSTEMS CONTROL BILL IN SOUTH AFRICA - 2024

**Praneet Valodia**

OP05

**Praneet Valodia Consulting, Cape Town, South Africa**

**Background:** Public hearings were held on the draft Tobacco and Electronic Delivery Systems Control Bill in South Africa. The objective of this presentation is to discuss (1) the report of the public hearings as presented by the Portfolio Committee of Health of the Sixth Parliament of the Republic of South Africa, and (2) to make recommendations for a way forward.

**Material and Methods:** Public hearings were conducted in 19 municipalities in 7 out of the 9 provinces in SA by the Portfolio Committee of Health, South Africa. The Committee hosted public hearings between 18 August 2023 and 11 February 2024. A report was published by the Committee on 27 March 2024.

**Results:** The Portfolio Committee of Health presented a report on each public hearing and an overall report. A total of 5373 people attended the public hearings. The Committee received 756 oral submissions during the hearings. Of these, 348 (46%) were in support of the Bill, 357 (47,2%) rejected the Bill and 14 (1,9%) partially supported the Bill. There were 37 (4,9%) participants who did not declare their positions on the Bill.

Provided that the data capturing was robust, there was an almost equal number of people who supported or rejected the Bill across the provinces, an absolute difference of 1,2% in favour of the rejection of the Bill.

**Conclusions:** There is no scientific merit based on the report for decisions to be made. Greater focus on the scientific evidence presented by experts supporting or rejecting the Bill would produce more reliable outcomes.

# SMOKING CESSATION COUNSELLING IN COLORECTAL CANCER PATIENTS

**Sergey S. Gordeyev,** Yana V. Belenkaya

OP06

**N.N. Blokhin Russian Cancer Research Center, Moscow, Russian Federation**

**Background:** Smoking is a known risk factor both for colorectal cancer (CRC) development and progression. Smoking cessation counselling is becoming an integral part of CRC care.

The purpose of this study was to investigate the efficacy of smoking cessation counselling in CRC patients undergoing surgical treatment.

**Materials and Methods:** Fifty-five patients hospitalized in a surgical unit completed a questionnaire. Both patients who received primary surgical treatment and patients who had received previous combined treatment were included. Patients receiving emergency care were excluded from the analysis. Smoking history, willingness to quit smoking and smoking cessation related postoperative events were analyzed.

**Results:** Nineteen (34.6%) patients were current smokers, 10 (18.1%) were former smokers and 26 (47.3%) reported no smoking experience. Twelve out of 19 (63.1%) current smokers received smoking cessation counselling before hospitalization and 9 out of 19 (47.3%) current smokers tried to quit smoking before surgery. Two out of 9 patients (22.2%) who attempted to quit smoking experienced pulmonary obstruction and shortness of breath during the postoperative course, which was managed only after smoking. Both of those patients smoked more than 2 packs a day.

**Conclusions:** Smoking cessation counselling is effective in CRC patients. Smoking cessation directly before surgery should be cautiously applied in heavy smokers, who may experience uncommon adverse events during postoperative course. Special smoking cessation methods may be necessary for this group, possibly with a stepwise approach using a risk modification concept.

# CAN WE USE MODERN FORMS OF TOBACCO CONSUMPTION AS PART OF A SMOKING CESSATION PROGRAMME?

**Yulia M. Yufereva**[1], Daria V. Regushevskaya[1,2]

OP07

[1]N.I. Pirogov Russian National Research Medical University, Moskow, Russian Federation
[2]City Clinical Hospital No. 1 n.a. N.I. Pirogov, Moskow, Russian Federation

Smoking cessation is the most cost-effective approach to the prevention and treatment of cardiovascular disease. The possibility of using two new but fundamentally different forms of smoking—electronic cigarettes (EC) and heated tobacco products (HTP)—to help people quit is currently being discussed. The majority of professional societies are strongly opposed to the use of these forms of smoking for this purpose. The potential for use of EC in patients who are not ready to quit and are not interested in pharmacological smoking cessation support was first mentioned in the 2018 ACC Expert Consensus Decision Pathway on Tobacco Cessation Treatment. The 2023 AHA/ACC Guideline for the Management of Patients with Chronic Coronary Disease for the first time classifies the short-term use of nicotine-containing EC as a smoking cessation option with a Class IIb recommendation.

The 2022 Cochrane review of the use of HTP for smoking cessation found that the effectiveness of HTP for this purpose remains unknown. When using HTP there is less exposure to toxins/carcinogens than with conventional smoking, for example there are lower concentrations of carboxyhemoglobin in the blood (0.74 times). A recent systematic review of randomized clinical trials (2023) of the effects of NRT on the cardiovascular system assessed the potential benefits of these devices. Significant reductions were seen in biomarkers involved in inflammation, oxidative stress, lipid metabolism, regulation of platelet function and endothelial dysfunction.

In real life, there will always be some patients who cannot quit completely and/or do not want to use NRT. For these people, a strong recommendation to stop smoking completely will not work. It is likely that for heavy smokers, switching to less harmful forms of smoking will remain the only way to reduce health risks at least slightly.

# ABSTRACT BOOK



## NIGHT SMOKING AS A FACTOR OF TOBACCO DEPENDENCE AND PROGNOSTIC MARKER FOR TREATMENT OUTCOMES

**Evangelos Sdogkos,** Thrasivoulos Konstantinou, Martha Amoiradou, Panagiota Theodosiou, Angelos Georgakopoulos, Anila Spahiu, Sarantis Pittas, Ioannis Vogiatzis

OP08

**Smoking Cessation Counselling Centre, Department of Cardiology, General Hospital of Veroia, Veroia, Greece**

**Background:** Waking at night for smoking is a usual behavior among smokers and may be associated with poor treatment outcomes at six months follow-up. The aim of the study is to identify factors associated with night smoking and the assessment of treatment outcomes.

**Material and Methods:** A total of 653 cigarette smokers who received treatment at our smoking cessation counseling center were studied. Patients' data, such as their clinical history, risk factors, and smoking habits, were collected from their medical records. Moreover, using a structured questionnaire additional information was obtained, for instance, regarding nicotine dependence. All participants were followed-up for six months after their target quit date. According to their smoking relapse, patients were divided into those who stopped (quitters) and those who continued to smoke (non-quitters).

**Results:** Out of the total sample, 215 (32.92%) reported smoking abstinence at six months follow-up. Night smokers were 325 (49.77%). Night smoking was associated with several other patient characteristics, including medical symptoms and diseases related to smoking, such as CAD, COPD, and stroke, treatment for depression, smoking within 30 minutes of waking in the morning, more than 30 cigarettes per day, higher Fagerstrom score and lower socioeconomic status. In multivariate analysis, night smoking remained a significant and independent predictor of smoking continuance at six months follow-up. Night smokers also reported a shorter average time to relapse (42.5 vs 63.7 days, p=0.03).

**Conclusion:** Night smoking is a significant indicator of nicotine dependence and a marker of more intensive and sustained treatment for smoking cessation. This behavior, associated with several socioeconomic and tobacco characteristics, can be easily assessed.

# ABSTRACT BOOK



## REVIEWS OF OVERHEATING ENDS AEROSOL: RECENT UPDATE

**Sébastien Soulet**[1], Roberto A. Sussman[2]

[1]**Ingesciences, Cestas, France**
[2]**Institute of Physical Sciences, National Autonomous University of Mexico, UNAM, Mexico City, Mexico (On leave from Institute of Nuclear Sciences, UNAM, Mexico City)**

**OP09**

We review the literature on laboratory studies quantifying the production of potentially toxic metal, organic byproducts (carbonyls, carbon monoxide, free radicals and some non-targeted compounds) and of in vitro testing in e-cigarette (EC) aerosol emissions, focusing on the consistency between their experimental design and a realistic usage of the devices, as determined by the power ranges of an optimal regime fulfilling a thermodynamically efficient process of aerosol generation that avoids overheating and "dry puffs".

Most of the reviewed studies (≈ 200 articles) failed in various degrees to comply with this consistency criterion or supplied insufficient information to verify it. Consequently, most of the experimental outcomes and risk assessments are either partially or totally unreliable and/or of various degrees of questionable relevance to end users.

Our reviews reinforce the pressing need to update and improve current laboratory standards by an appropriate selection of testing parameters and the logistical incorporation of end users in the experimental design.

# ABSTRACT BOOK

PRECLINICAL EVALUATION

## VANILLIN FLAVOR IN E-LIQUIDS. IS IT DANGEROUS FOR ENDOTHELIAL CELLS? - THE REPLICA PROJECT

**Konstantinos Partsinevelos[1,2],** Rosalia Emma[3,4], Ang Sun[5,6], Giuseppe Carota[1,2], Sonja Rust[2], Vladislav Volarevic[7,8], Ronny Lesmana[9,10,11], Antonio Giordano[5,6], Melisa Intan Barliana[10,12], Aleksandar Arsenijevic[7], Nikolina Kastratovic[7], Vladimir Markovic[7], Alfio Distefano[1], Laura Orlando[1], Riccardo Polosa[2,3,4], Giovanni Li Volti[1,4], Massimo Caruso[1,4]

OP10

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[9]Department of Biomedical Sciences, Faculty of Medicine, Universitas Padjadjaran, Bandung, Indonesia

**Background:** E-cigarettes are considered as a safer alternative to tobacco combustible cigarettes and a valuable tool to reduce tobacco-related harm. E-liquids, used in e-cigarettes (e-cigs), typically contain chemical flavors that are generally recognized as safe (GRAS) for food applications, but little is known about their application in vaping.

In this study, the international Replica group replicated the work of Fetterman et al. (2018) by testing vanillin, a common vaping flavor, on the endothelium. We used standardized methods to verify whether the results obtained by Fetterman and colleagues were applicable to the real vaping practice.

**Materials and Methods:** Human aortic endothelial cells (HAECs) were exposed to 100 puffs of aerosol from e-liquids containing unflavored Propylene Glycol/Vegetable Glycerol (PG/VG) and PG/VG with vanillin in two settings widely used for e-cigs, regular (1 Ohm coil) and sub-ohm (0.3 Ohm coil). A standardized vaping machine (LM4E, Borgwaldt) was used to bubble e-cig aerosol in PBS/Ethanol (20%). Cytotoxicity, oxidative stress, and nitric oxide (NO) bioavailability were evaluated after treating cells with the bubbled solutions for 24h by NRU assay, 90' by dihydroethidium (DHE) fluorescence measurement, and 90' by 4,5-diaminofluorescein diacetate (DAF-2 DA), respectively.

**Results:** Our findings, contrary to Fetterman's results, showed no harmful effect of vanillin either on the viability of the cells or on their ability to produce nitric oxide. NRU and NO bioavailability data revealed no significant differences among test products and Vehicle Control (VC) for both regular and sub-ohm settings. The treatment with unflavored PG/VG and PG/VG Vanillin (both settings) did not reveal significant increase in oxidative stress compared to VC and even in comparison to each other.

# ABSTRACT BOOK



OP10

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**Conclusions:** In conclusion, our replication of Fetterman's et al. (2018) experiments on vanillin's effect on endothelium, using real e-liquid formulations and standardized exposure, revealed significant disparities between the two works. Many of the effects attributed to vanillin by Fetterman, in our work appear more related to the extensive use of ethanol that they made in their experiments. Further research is needed to better understand the health effects of e-liquid flavorings, with careful consideration of methodology, essential for reliable results.

# BRONCHIAL ASTHMA RELATIONSHIP WITH SMOKING

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OP11

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**Background:** In the evolving landscape of asthma treatment, the relationship between smoking and respiratory health has taken on new dimensions. Historically, smoking was paradoxically seen as a remedy for asthma, with figures like Marcel Proust using stramonium cigarettes to ease their symptoms. During the 19th and early 20th centuries, smoking various substances, including tobacco and lobelia, was a common treatment for asthma. Yet, today, the dangers of smoking, particularly for those with asthma, are well-documented and alarming.

Asthma patients who smoke face a harsher reality. Smoking exacerbates asthma symptoms, increases the need for rescue medications, and results in poorer health outcomes. The combination of smoking and asthma accelerates the decline in lung function more than either condition alone. Smokers with asthma are often less responsive to corticosteroids, complicating their treatment and management. Moreover, smoking doesn't just affect the smoker; secondhand smoke is a significant risk factor for asthma in children, particularly in homes and cars where exposure is high.

Quitting smoking offers substantial benefits for asthma patients, but the challenge lies in motivating smokers to quit. For those struggling to quit, harm reduction strategies, such as switching to electronic nicotine delivery systems or heated tobacco products, are gaining attention. These alternatives may reduce health risks by up to 95% compared to traditional smoking, according to some studies. Medical associations are beginning to explore these harm reduction approaches for patients who are unable to quit smoking entirely.

**Materials and Methods:** The study will include 100 patients using various types of smoking devices as the main group, including non-smoking patients in the control group. All patients had previously been diagnosed with bronchial asthma. A clinical and functional assessment of the patients' condition, the level of control and quality of life, as well

OP11

as an assessment of biological markers of inflammation will be carried out. The aim of the study was to evaluate changes in the inflammation profile depending on the means used for tobacco and nicotine use.

**Results:** Currently, the study includes 34 patients with bronchial asthma: 33 men and 1 woman aged 18 to 28 years. Of these, 13 are non-smokers, the rest use various types of smoking devices. It is noteworthy that 10 of them (47.6%) are double or triple users of smoking drugs, that is, they use both classic cigarettes and electronic nicotine delivery devices or electronic tobacco heating devices.

The assessment of asthma control (according to the AST test questionnaire) in the control group (non-smokers) was 17.15, in the group of smokers -16.4.

The AQLQ quality of life score was 4.28 in the control group and 4.6 in the study group.

**Conclusions:** The results are preliminary and require further study.

# ABSTRACT BOOK



## FINAL RESULTS OF A 5-YEAR COHORT OBSERVATIONAL STUDY TO EVALUATE RESPIRATORY SYMPTOMS AND ABNORMAL LUNG FUNCTIONS AMONG PARTICIPANTS WHO USE IQOS WITH HEATSTICKS COMPARED TO SMOKERS OF CONVENTIONAL CIGARETTES

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OP12

A comparison of smoking behaviors between conventional cigarettes (CC) and heated tobacco product (HTP) users revealed that the Marginal Means Estimate for CAT score was 0.465 ± 0.085 points lower for HTP users than for CC users. Additionally, FEV(pre) results indicated a 0.026 ± 0.012 higher value for HTP users.

These findings suggest that transitioning to HTP use may have less adverse effects than continued use of CC for individuals with a long smoking history. Future research should focus on extended follow-up of this cohort to explore the impact of shifting to HTP on both existing and emerging chronic conditions, as well as various health-related measures and outcomes.

Further analysis, including chest CT data, exacerbation frequency, biomarkers, and other relevant indicators, is crucial to comprehensively assess the differences between CC smokers and HTP users. To achieve a more thorough understanding, in-depth assessments using methodologies such as Markov chains, Propensity scores, and Time-lag models are warranted.

Additionally, there is consideration for a transition towards the Clinical Data Interchange Standards Consortium's (CDISC) Operational Data Model (ODM). This strategic shift aims to enhance data management capabilities, improve research outcomes, and uphold top-tier patient care standards. Notably, the FDA has played a significant role in advocating for the adoption of data standards like ODM in clinical research.

# THE EFFECT OF DIFFERENT TYPES OF SMOKING ON THYROID FUNCTION IRINA BELOVALOVA

**Irina Belovalova**

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OP13

**Background:** Cigarette smoking negatively affects various endocrine organs, including the thyroid gland, affecting the immune system, iodine metabolism and reducing the effectiveness of treatment. The purpose of this study is to analyze the effect of cigarettes on thyroid function.

**Materials and Methods:** Clinical assessment of the effect of smoking on thyroid function in patients with Graves' disease.

**Results:** The study included 138 patients; the proportion of smokers was 47%. The absence of remission of diffuse toxic goiter was observed 45% more often in smoking patients already receiving treatment, compared with non-smoking patients during thyreostatic therapy, which is associated with exposure to thiocyanate contained in cigarette smoke.

**Conclusions:** A connection between smoking and the risk of severe Graves' disease has been identified. Minimizing the risks of smoking (replacing traditional smoking with alternative sources of nicotine delivery) may help normalize thyroid hormone levels and alleviate some of the deficits associated with nicotine withdrawal. This may lead to higher rates of successful abstinence overall.

# COMPARISON OF METHODS OF NICOTINE-CONTAINING PRODUCTS USE AND THEIR EFFECT ON THE DEVELOPMENT OF CANCER

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OP14

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**Background:** The purpose of this study is to assess the effect of the intensity and method of nicotine use on the structure of morbidity, the clinical course of diseases and the development of treatment complications in patients of the Department of Head and Neck tumors of the N. N. Petrov National Research Medical Center of Oncology. The motivation for quitting smoking and the possibility of applying the concept of harm reduction in the practice of doctors are also assessed.

**Materials and Methods:** The study was conducted on the basis of the Department of Head and Neck tumors of the National Research Medical Center of Oncology named after N.N. Petrov. Information about the nature of nicotine use by patients is collected using C-TUQ questionnaires, the Fagerstrom test and the calculation of the Charleson concomitant pathology index. At the moment, 47 people have already participated in the survey (38 current smokers, 12 of them switched to alternative sources of nicotine delivery, 9 former smokers).

**Results (expected):** Presumably, patients who quit smoking or switched to alternative sources of nicotine delivery will have fewer complications associated with the underlying disease and ongoing treatment (medication, surgery, and radiation).

**Conclusions:** It is likely that the harmful effects of different end products on the health of patients vary. The authors suggest that the consumption of alternative sources of nicotine delivery should be systematically documented. This study will help determine the management tactics of patients with reduced motivation to quit smoking and the possibility of using the concept of harm reduction in the practice of a doctor.

# HARM REDUCTION STRATEGIES FOR TOBACCO USE IN CHRONIC KIDNEY DISEASE PATIENTS

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OP15

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**Background:** Harm reduction in tobacco use aims to minimize adverse health effects rather than solely achieving complete cessation. This is particularly relevant for individuals with chronic kidney disease (CKD), where tobacco use significantly worsens disease progression and complications. Harmful substances in tobacco smoke, including nicotine, contribute to CKD development.

This review explores harm reduction strategies for tobacco use and their benefits for CKD patients. It evaluates how nicotine replacement therapies (NRTs), electronic cigarettes (e-cigarettes), and smokeless tobacco products can reduce exposure to harmful tobacco constituents.

**Material and Methods:** The literature search involved querying databases such as PubMed, Scopus, and Google Scholar for peer-reviewed articles from the last decade. Keywords included "harm reduction," "tobacco use," "chronic kidney disease," "nicotine replacement therapy," "electronic cigarettes," and "smokeless tobacco." Articles were selected based on relevance, quality of evidence, and recency. Priority was given to studies focusing on the long-term safety and efficacy of harm reduction products in CKD patients.

**Results:** Evidence suggests that NRTs and e-cigarettes are less harmful than traditional cigarettes and can effectively reduce smoking-related harm. For CKD patients, these alternatives may lower cardiovascular risk, slow kidney damage progression, and improve overall health outcomes. However, the long-term safety and efficacy of e-cigarettes and other harm reduction products in CKD patients require further research.

**Conclusions:** This review presents the latest perspectives on incorporating harm reduction strategies within tobacco control and CKD management. By integrating harm reduction into patient care, healthcare providers can offer more personalized and pragmatic

OP15

support for individuals struggling with tobacco addiction. Future research should focus on the long-term effects of harm reduction products on kidney function and their potential integration into standard clinical practice for CKD patients.

# ABSTRACT BOOK



## NICOTINE PATCH THERAPY IN PEOPLE WITH LONG COVID AND MECFS SHOWS A CLINICALLY SIGNIFICANT IMPROVEMENT IN BASELINE DURING OR AFTER NICOTINE PATCH USE: A PATIENT-LED OBSERVATIONAL SURVEY

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**Comillas University, Madrid, Spain and the Renegade Research**

OP16

**Background:** Since the onset of the COVID-19 pandemic, people have been suffering with Long Covid. People living with Long Covid for years (some MECFS testers have suffered for decades) have turned to self-experimentation. Nicotine patches emerged as a promising treatment option following Dr Leitzke's hypothesis, published in the Spring of 2023. With the aim of harm reduction and treatment research, we collected data from the early adopters (testers) starting in the summer of 2023.

**Material and Methods:** Data is collected through an online survey after the testers (n=231) consent to anonymous sharing of the data for research purposes. This cohort is representative of the Long Covid/MECFS communities (sex, age, and gender). The primary measure is the Bells' Score Percentage after completing at least a round of nicotine patches and a break period.

**Results:** Three-quarters of the testers reported a clinically significant improvement in baseline while using or shortly after discontinuing use of the nicotine patch. Testers reporting some symptoms were more likely to report a higher improvement in baseline than those with other symptoms.

**Conclusions:** Low-dose nicotine patch treatment is beneficial for most people with Long Covid and MECFS who try it and there is minimal risk of worsening. Moreover, the patient-led, symptom-led approach and the short half-life of nicotine make the easily removable nicotine patch a relatively safe and very promising treatment. The length and dose vary from person to person so there is no clear protocol or endpoint, but longer treatments correlate with better outcomes. Anecdotally, it appears that there is a high prevalence of neurodiversity in these subgroups with various reports of a paradoxical worsening of symptoms when they stopped smoking (self-medication?). More research with biomarkers and full-body scans is needed.

# AUTHORS' INDEX

# AUTHORS' INDEX

# AUTHORS' INDEX