

75th TOBACCO SCIENCE RESEARCH CONFERENCE

MONDAY MORNING, SEPTEMBER 12, 2022

Symposium

8:45AM WELCOME & OPENING REMARKS

Elaine Round, RAI Services Company
75th TSRC Conference Chair

8:50 AM CHANGES IN THE TOBACCO INDUSTRY: 75 YEARS OF TSRC

Fraser Williamson, Global Laboratory Services
75th Symposium Chair

8:55AM 1. 75 Years of TSRC – Yesterday in a Nutshell. Mike OGDEN;

Ogden Ology, Lewisville, NC, USA

9:20AM 2. TOBACCO AGRONOMIC MANAGEMENT AND THE EVOLUTION OF HARM REDUCTION. Matthew VANN;

North Carolina State University, Raleigh, NC, USA

9:45AM 3. THE HARM REDUCTION POTENTIAL OF ORAL TOBACCO PRODUCTS: PAST, PRESENT AND FUTURE.

Jason FLORA; Altria Client Services, Richmond, VA, USA

10:10AM Break

10:30AM 4. THE CHALLENGE AND PROMISE OF AEROSOL-BASED TOBACCO PRODUCTS FOR REDUCING THE HEALTH IMPACT OF TOBACCO USE. Elaine ROUND;

RAI Services Company, Winston-Salem, NC, USA

10:55AM 5. A BETTER WAY FORWARD – PERSPECTIVES FROM A PHYSICIAN, SCIENTIST AND PUBLIC HEALTH ADVOCATE. Jasjit AHLUWALIA;

Brown University, Providence, RI, USA

11:20AM 6. SCIENTIFIC COOPERATION TO SUPPORT HARM REDUCTION STRATEGIES: CORESTA RECENT WORK AND PERSPECTIVES. Rob STEVENS;

President of the CORESTA Scientific Commission

11:40AM 7. 65 YEARS OF TOBACCO SCIENCE JOURNAL. Bob PEARCE; University of Kentucky, Lexington, KY, USA

12:00AM Lunch

1:00AM Poster Session

- 8. ABUSE LIABILITY ASSESSMENT FOR PREMARKET TOBACCO PRODUCT APPLICATIONS: APPLICATION OF HUMAN ABUSE POTENTIAL (HAP) STUDY METHODOLOGY AND SPECIAL CONSIDERATIONS.** Naama LEVY-COOPERMAN and Megan J. Shram; Altreats Research Partners, Toronto, ON, Canada
- 9. AN IMPROVED METHOD FOR THE DETERMINATION OF CARBONYLS IN CIGARETTE SMOKE AND BUTYRALDEHYDE CO-ELUTION.** Xiaohong C. JIN, Regina M. Ballentine, Weiling Li and John H. Miller; Altria Client Services, Richmond, VA, USA
- 10. NICOTINE GUM PRODUCT COMPARISON: DEVELOPMENT AND APPLICATION OF MASTICATION METHOD.** Hannah GRISEVICH, Fadi Aldeek, Vanessa Lopez and John H. Miller; Altria Client Service Richmond, VA, USA
- 11. MECHANISTIC TOXICITY ASSESSMENT OF ORAL NICOTINE POUCHES IN COMPARISON TO COMBUSTIBLE CIGARETTES AND SMOKELESS TOBACCO USING HUMAN GINGIVAL FIBROBLASTS.** Ashutosh KUMAR¹, Utkarsh Doshi¹, Mariana Farcas¹, Mingda Zhang¹, Jutta Marzillier², George DeGeorge² and K Monica Lee¹; ¹Altria Client Services, Richmond, VA, USA and ²MB Research Labs, Spinnerstown, PA, USA
- 12. DEVELOPMENT OF MODIFIED RISK CLAIMS AND SUPPORTIVE LANGUAGE TO MOTIVATE AND INFORM ADULT SMOKERS TO SWITCH FROM CIGARETTES TO AN ORAL TOBACCO-DERIVED NICOTINE PRODUCT.** Joshua KARELITZ, Jenna Leighty, Elizabeth Becker and Mohamadi Sarkar; Altria Client Services, Richmond, VA, USA
- 13. A STRUCTURE-ACTIVITY RELATIONSHIP BASED APPROACH TO TOBACCO PRODUCT INGREDIENT HAZARD ASSESSMENT.** Chastain ANDERSON, Olushola Awoyemi, Zhengxi Wei, Jingjie Zhang, Richard Morgan and Kyeonghee Monica Lee; Altria Client Services, Richmond, VA, USA

- 14. A COMPARISON OF HPHCS IN ON![®] NICOTINE POUCHES TO HPHCS IN CIGARETTES AND SWEDISH SNUS.** Karl WAGNER, Timothy L. Danielson, Jason W. Flora, Vanessa E. Haase, Richard W. Morgan and Michael J. Morton; Altria Client Services, Richmond, VA, USA
- 15. COMPARATIVE TOXICITY ASSESSMENT OF MARKET ORAL NICOTINE POUCHES TO COMBUSTIBLE CIGARETTES AND ORAL TOBACCO USING REGULATORY IN VITRO CYTOTOXICITY AND GENOTOXICITY ASSAYS.** Mariana FARCAS, Doshi Utkarsh, Mingda Zhang, Yevgeniya V. Prepelitskaya, Thomas J. Hurst and Kyeonghee M. Lee; Altria Client Services, Richmond, VA, USA
- 16. A COMPARATIVE HPHC QUANTITATIVE RISK ASSESSMENT OF RELX INFINITY ENDS AEROSOLS WITH 1R6F CIGARETTE AND VUSE ALTO ENDS.** Charlene LIU¹, Djeren Simitdjioglu², Perla Landestoy², Emmanuel Minet² and Autumn Bernal³; ¹Cheerain HK Limited, Hong Kong, China, ²Broughton Group Limited, Leeds, UK and ³ToxCreative, Laguna Hills, CA, USA
- 17. AN ABUSE LIABILITY ASSESSMENT OF THE RELX INFINITY ELECTRONIC NICOTINE DELIVERY SYSTEM (ENDS) WITH TOBACCO AND MENTHOL FLAVORED E-LIQUIDS IN ADULT ENDS CONSUMERS.** Donald GRAFF¹, Rebeca Melara², Ramadevi Vemuri² and Catherine Mills²; ¹Cheerain HK Limited, Hong Kong, China and ²Altasciences Inc, Laval, QC, Canada
- 18. AN ABUSE LIABILITY ASSESSMENT OF THE RELX INFINITY ELECTRONIC NICOTINE DELIVERY SYSTEM (ENDS) WITH TOBACCO AND MENTHOL FLAVORED E-LIQUIDS IN ADULT SMOKERS.** Donald GRAFF¹, Rebeca Melara², Ramadevi Vemuri² and Catherine Mills²; ¹Cheerain HK Limited, Hong Kong, China and ²Altasciences Inc, Laval, QC, Canada
- 19. A BLACK BUFFALO NOVEL NICOTINE POUCH PRODUCT IS BIOEQUIVALENT TO 4 MG NICORETTE GUM.** Ed CARMINES¹, Karen Carmines¹, Lise Fraissinet¹, Naama Levy- Cooperman² and Ryan Seltzer³; ¹Chemular Inc, Hudson, MI, USA, ²Altreos Research Partners, Toronto, ON, Canada and ³Safety in Numbers, Tucson, AZ, USA
- 20. COMPARATIVE AEROSOL HPHC EVALUATION OF SEVEN FLAVORS OF A TEMPERATURE-REGULATED NICOTINE SALT-BASED CONNECTED ENDS PRODUCT WITH COMBUSTIBLE TOBACCO CIGARETTES.** Manoj MISRA, Ed Carmines and Lise Fraissinet; Chemular Inc, Alamo, CA, USA
- 21. COMPARATIVE AEROSOL HPHC EVALUATION OF SEVEN FLAVORS OF A TEMPERATURE-REGULATED NICOTINE SALT-BASED CONNECTED ENDS PRODUCT WITH MARKET STANDARD ENDS.** Manoj MISRA, Ed Carmines and Lise Fraissinet; Chemular Inc, Alamo, CA, USA

- 22. IN VITRO TOXICITY EVALUATION OF AEROSOL FROM SEVEN FLAVORS FROM A TEMPERATURE-REGULATED NICOTINE SALT-BASED CONNECTED ENDS PRODUCT.** Manoj MISRA; Chemular Regulatory Consulting, Alamo, CA, USA
- 23. PERCEPTIONS AND USE OF AN ENDS DEVICE FOR A VULNERABLE POPULATION: INCARCERATED PERSONS.** Cheryl OLSON¹, Neil Sherwood² and Willie McKinney³; ¹Cheryl K. Olson, Sc.D., San Carlos, CA, USA, ²Neil Sherwood Consulting, Nyon, Vaud, Switzerland and ³McKinney Regulatory Science Advisors, Henrico, VA, USA
- 24. USING BOOTSTRAP SAMPLING TO ASSESS THE EFFECT OF LOW PARTICIPATION IN PROFICIENCY STUDIES.** Stacey SLONE, C. Ruth McNeas and Brent Shelton; University of Kentucky, Lexington, KY, USA
- 25. VITROCELL CELL EXPOSURE METHODS FOR SCREENING AND DOSE RESPONSE EXPERIMENTS TO MAXIMIZE DELIVERY AND REDUCE EXPOSURE TIMING.** Mariano SCIAN, Cameron Sovick, Christopher Damron, Benjamin Irvin and Pavel Kosachevsky; Enthalpy Analytical, Henrico, VA, USA
- 26. GENERATION AND TESTING OF HIGH CONCENTRATION HTP CONDENSATE IN THE NEUTRAL RED UPTAKE ASSAY.** Mariano SCIAN, M. Smith, P. Emma, C. Sovick, P. Kosachevsky and L. McFadden; Enthalpy Analytical, Henrico, VA, USA
- 27. GENERATION AND TESTING OF HIGH CONCENTRATION HTP CONDENSATE IN THE BACTERIAL REVERSE MUTATION ASSAY.** Mariano SCIAN, L. McFadden, A. Bhatnagar, G. Freeman, E. Wickersham, P. Morris, C. Sovick, P. Kosachevsky and M. Smith; Enthalpy Analytical, Henrico, VA, USA
- 28. INVESTIGATING THE POTENTIAL FOR KETENE GENERATION IN FLAVORED E-LIQUIDS VIA THERMAL DEGRADATION OF ESTER FLAVORANTS.** Joseph JABLONSKI, Andrew G. Cheetham and Ethan D. Sill; Enthalpy Analytical, Richmond, VA, USA
- 29. ANALYSIS OF GLYCIDOL IN ELECTRONIC NICOTINE DELIVERY SYSTEMS AND HEATED TOBACCO PRODUCTS AEROSOL BY GC/MS.** Joseph KENNADAY, Roy Hutchins, Michael J. Siernos and Carl J. Adams; Eurofins Professional Scientific Services, Winston-Salem, NC, USA

- 30. ANALYTICAL METHOD VALIDATION FOR ANALYSIS OF METALS IN ELECTRONIC NICOTINE DELIVERY SYSTEM LIQUIDS WITHOUT THE USE OF MICROWAVE DIGESTION.** Carol KING, Donald Stogner, Carl J. Adams and Salem Chouchane; Eurofins Professional Scientific Services, Winston-Salem, NC, USA
- 31. VALIDATION OF A UPLC METHOD FOR THE DETERMINATION OF NAPHTHALENE, PYRENE AND BENZO[A]PYRENE IN HEATED TOBACCO PRODUCTS.** Flaubert MBEUNKUI, Osie V. Morrisey, Carl J. Adams and Salem Chouchane; Eurofins Professional Scientific Services, Winston-Salem, NC, USA
- 32. VALIDATION OF A GC/MS METHOD FOR DETERMINATION OF SODIUM PROPIONATE, POTASSIUM SORBATE AND SODIUM BENZOATE IN SMOKELESS TOBACCO PRODUCTS.** Flaubert MBEUNKUI, Nathan Weisner, Essoyodou Kpatcha, Carl J. Adams and Salem Chouchane; Eurofins Professional Scientific Services, Winston-Salem, NC, USA
- 33. USE OF DNPH-HCL FOR DERIVITIZATION AND ANALYSIS OF CARBONYLS IN ELECTRONIC NICOTINE DELIVERY SYSTEMS (LIQUID AND AEROSOL) AND AEROSOL FROM HEATED TOBACCO PRODUCTS.** Rebecca ROBERTS, Christie Brande, LaTya Lindsay, Matthew Watts, Stephen Vance, Angela Seamans, Carl J. Adams and Salem Chouchane; Eurofins Professional Scientific Services, Winston-Salem, NC, USA
- 34. THE ANALYTICAL TRANSFORMATION FROM HELIUM TO HYDROGEN.** Michael SIERNOS, Jimmy Lawson, Dkara Brant, Carl J. Adams and Salem Chouchane; Eurofins Professional Scientific Services, Winston-Salem, NC, USA
- 35. THE EFFECT OF DESIGN PARAMETERS ON YIELDS OF 33 HARMFUL AND POTENTIALLY HARMFUL CONSTITUENTS (HPHCS) IN MAINSTREAM SMOKE OF LARGE CIGARS.** Tianrong CHENG, Therese Ku, Scott Wasdo, Samantha Reilly and Charles Feng; Food and Drug Administration, Silver Spring, MD, USA
- 36. DEVELOPMENT AND VALIDATION OF A GC-MS METHOD FOR THE ANALYSIS OF PAHS IN HEATED TOBACCO PRODUCT (HTP) AEROSOLS.** Peter GIBBONS, Daniel Hammond, Jack Thomas and Sally McGuigan; Hall Analytical Laboratories, Manchester, UK
- 37. ELECTROMEMBRANE EXTRACTION FOR NICOTINE DETERMINATION IN AEROSOLS BY HPLC-UV: METHOD DEVELOPMENT AND VALIDATION.** Libin WAN¹, Mantang Chen², Yaqiong Qin², Sheng Wang², Shaofeng Liu², Ge Zhao² and Fuwei Xie²; ¹Henan Academy of Sciences, Zhengzhou, Henan, China and ²Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, Henan, China

- 38. USE OF DISSOLUTION TO CHARACTERIZE AND COMPARE ORAL NICOTINE PRODUCTS.** Helen CYRUS-MILLER¹ and Willie McKinney Jr.²; ¹HF Cyrus Miller, Sandston, VA, USA and ²McKinney Regulatory Science Advisors, Richmond, VA, USA
- 39. PERCEPTIONS OF THE RELATIVE HARM OF ELECTRONIC CIGARETTES COMPARED WITH COMBUSTIBLE CIGARETTES IN THE USA: ANALYSIS OF THE POPULATION ASSESSMENT OF TOBACCO AND HEALTH (PATH) STUDY DATA, 2013-2019.** Xavier CAHOIRS, Mengran Guo, Thomas Verron and Grant O'Connell; Imperial Brands, Bristol, UK
- 40. A 12 MONTH STABILITY STUDY ON JUUL MENTHOL FLAVOURED AEROSOLS USING TWO NON-TARGETED ANALYTICAL METHODS.** Mark CROSSWHITE, Lena N. Jeong, Patrick C. Bailey, J. Brian Jameson, Anastasia Lioubomirov, David Cook, Clarissa Yang, Adam Ozvald, Matthew Lyndon and I. Gene Gillman; Juul Labs, Washington, DC, USA
- 41. INTENTION TO PURCHASE MULTIPLE E-CIGARETTE FLAVORS AND ITS EFFECT ON PROJECTED USE RATE ACROSS TOBACCO USER AND NONUSER GROUPS.** Kimberly FROST-PINEDA¹, Michael Polster², Robyn Chae², Nicole Dianno² and Robert Freeland¹; ¹RAI Services Company, Winston-Salem, NC, USA and ²Naxion, Philadelphia, PA, USA

MONDAY AFTERNOON, SEPTEMBER 12, 2022

SYMPOSIUM PANEL

Are dual users of cigarettes and smoke-free products all the same?

The continuum of dual use behavior.

Session Chair: Mohamadi Sarkar

1:45PM – 3:30PM

- 42. INTRODUCTIONS and OPENING REMARKS.** Mohamadi SARKAR; Altria Client Services, Richmond, VA, USA
- 43. IS “DUAL USE” AN EFFECTIVE HARM REDUCTION STRATEGY? A PUBLIC HEALTH PERSPECTIVE.** Maciej GONIEWICZ; Roswell Park Comprehensive Cancer Center, Buffalo, NY, USA
- 44. DUAL USE OF ENDS AND CIGARETTES: BEHAVIORAL TRAJECTORIES.** Arielle SELYA and Saul Shiffman; Pinney Associates, Bethesda, MD, USA
- 45. NOT ALL DUAL TOBACCO USE IS THE SAME: EVIDENCE FROM TOBACCO USE BEHAVIOR AND EXPOSURE.** Pavel N. LIZHNYAK; Altria Client Services, Richmond, VA, USA

46. **DISCUSSANT**; Jasjit S. AHLUWALIA; Brown University School of Public Health, Providence, RI, USA

PANEL DISCUSSION & AUDIENCE Q&A

Break

Session A

Reduced Risk and Dual Use

Session Chair: Ian Fearon

3:50PM

47. REDUCED RISK CLAIMS COMPREHENSION AND RISK PERCEPTIONS IN ADULT TOBACCO USERS AND NONUSERS FOR AN ORAL TOBACCO-DERIVED NICOTINE PRODUCT AFTER EXPOSURE TO PROMOTIONAL MATERIALS.

Diana MCKINNEY, Jennifer N. Lewis and Elizabeth A. Becker; Altria Client Services, Richmond, VA, USA

4:10PM

48. IMPACT OF REDUCED RISK CLAIMS ON BEHAVIORAL INTENTIONS FOR AN ORAL TOBACCO-DERIVED NICOTINE POUCH PRODUCT.

Elizabeth BECKER and Jennifer N. Lewis; Altria Client Services, Richmond, VA, USA

4:30PM

49. COMPLETE OR PARTIAL SWITCHING FROM COMBUSTIBLE CIGARETTES TO THE RELX INFINITY ELECTRONIC NICOTINE DELIVERY SYSTEM (ENDS) OVER 8 WEEKS RESULTS IN LOWER EXPOSURE TO HARMFUL AND POTENTIALLY HARMFUL CONSTITUENTS

Session B

Oral Product Method

Development & Characterization

Session Chair: Karl Wagner

3:50PM

51. COMPARISON OF TWO APPARATUSES FOR NICOTINE DISSOLUTION TESTING IN SMOKELESS TOBACCO AND TOBACCO-FREE NICOTINE CONTAINING PORTIONED PRODUCTS.

Nolan SPANN¹, Candice K. Cunningham¹, Taryn L. Winner¹ and Vivek Shah²; ¹R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA and ²Sotax Corporation, Westborough, MA, USA

4:10PM

52. REAL-TIME MONITORING OF NICOTINE RELEASE FROM ORAL NICOTINE POUCHES USING A NOVEL BIORELEVANT DISSOLUTION METHOD.

Matthias KNOPP¹ and Mikael Staaf²; ¹Bioneer A/S, Copenhagen, Capital Region, Denmark and ²Swedish Match AB, Stockholm, Sweden

4:30PM

53. NICOTINE PHARMACOKINETICS AND ABUSE LIABILITY ASSESSMENT OF VELO ORAL NICOTINE POUCHES.

Milly KANOBE, Patrudu S. Makena, Jason S. Hong, Kristen N. Prevette, Sarah A. Ayoku, Janyra Williams and Sarah A. Baxter-Wright; RAI Services Company, Kernersville, NC, USA

(HPHCS) FOUND IN CIGARETTE SMOKE. Donald GRAFF¹, Sabrina Ciric², Erica Nachi², Kirk Newland² and Yuli Xie²; ¹Cheerain HK Limited, Hong Kong, China and ²Celerion, Lincoln, NE, USA

4:50PM

50. A RANDOMIZED, CONTROLLED, OPEN-LABEL, IN-CLINIC STUDY EVALUATING CHANGES IN BIOMARKERS OF EXPOSURE IN ADULT SMOKERS WHO SWITCH TO ON! NICOTINE POUCHES FOR SEVEN DAYS. Jesse RENSCH, Jeffery S. Edmiston, Jingzhu Wang, Xiaohong Jin and Mohamadi Sarkar; Altria Client Services, Richmond, VA, USA

4:50PM

54. MEDIUM/LONG TERM VARIABILITY OF MOIST SMOKELESS TOBACCO PRODUCTS FROM THE UNITED STATES MARKETPLACE. Michael MORTON, Raquel Olegario, Erica Sena and Karl Wagner; Altria Client Services, Richmond, VA, USA

Adjourn

TUESDAY MORNING, SEPTEMBER 13, 2022

Session A

**E-Cigarettes Methods
Development & Characterization**
Session Chair: Chris Junker

Session B

Tobacco & Agronomy
Session Chair: Rana Tayyarah

8:00AM

55. NON-TARGETED ANALYSIS OF ENDS – CHALLENGES, CONSIDERATIONS AND BEST PRACTICES. Lena JEONG, M.R. Crosswhite, J.B. Jameson, M. Lyndon, D.K. Cook and I.G. Gillman; Juul Labs, Washington, DC, USA

8:00AM

61. IMPACT OF HARVEST TIMING ON YIELD, LEAF QUALITY, ALKALOIDS, AND TOBACCO-SPECIFIC NITROSAMINES IN BURLEY TOBACCO IN TENNESSEE. Mitchell RICHMOND; University of Tennessee, Knoxville, TN, USA

8:25AM

56. DETERMINATION OF PARTICLE SIZE DISTRIBUTION FROM E-VAPOUR PRODUCTS USING THE DEKATI EDILUTER™ PRO AND ELPI®+ SYSTEM. Peter JOZA, Angel Rodriguez-Lafuente and Hossein Bazargan; Labstat International, Kitchener, ON, Canada

8:45AM

57. EFFECTS OF ION MOBILITY, LC SEPARATION, AND MASS SPECTROMETRY ON QUANTITATION OF WATER-SOLUBLE B VITAMINS IN MARKET PRODUCT VAPOR DEVICES. Owen BUSSEY; R.J. Reynolds Tobacco, Winston Salem, NC, USA

9:05AM

58. PARTIAL VAPOR PRESSURE, ACTIVITY, ACTIVITY COEFFICIENT AND HENRY'S LAW VAPORIZATION CONSTANT AT 25 °C OF NICOTINE FROM BINARY MIXTURES WITH GLYCERIN AND WITH PROPYLENE GLYCOL. F. Kelley ST. CHARLES¹ and Serban C. Moldoveanu²; ¹St. Charles Consultancy, Lewisville, NC, USA and ²R. J. Reynolds Tobacco, Winston-Salem, NC, USA

9:25AM

59. HPHC MARKET MAP OF OPEN POD-BASED AND CLOSED POD-BASED E-CIGARETTES FROM THE NORTH AMERICAN MARKET INCLUDING A COMPARISON OF SELECTED ANALYTE YIELD IN THE AEROSOL TO 3R4F CIGARETTE SMOKE. Thomas COCCIARDI, A.M.

8:25AM

62. PRODUCING LOW ALKALOID FLUE-CURED TOBACCO – EFFECTS OF CULTIVAR SELECTION AND MANAGEMENT PRACTICES. Matthew VANN; NC State University, Raleigh, NC, USA

8:45AM

63. AGRONOMIC PERFORMANCE OF ULTRA-LOW NICOTINE CRISPR LINES. Anne FISHER¹, Barunava Patra¹, Colin Fisher¹, Huihua Ji¹, Xuguo Zhou¹, Jeffrey Kinney¹ and Shengming Yang²; ¹University of Kentucky, Lexington, KY, USA and ²USDA, Fargo, ND, USA

9:05AM

64. ANALYSIS OF TOBACCO LEAF TRANSCRIPTOMES REVEALS DIFFERENTIAL INFLUENCES OF KCL AND K2SO4 ON TOBACCO-SPECIFIC NITROSAMINE (TSNA) FORMATION. Sanjay Kumar SINGH, Sitakanta Pattanaik, Adrea Keeney, Andy Bailey, Bob Pearce and Ling Yuan; University of Kentucky, Lexington, KY, USA

9:25AM

65. HIGH-YIELD PRODUCTION OF TAXADIENE IN CHLOROPLAST-TRANSFORMED TOBACCO. ZHANG Jianfeng¹, Zheng Qingxia¹, Xu Yalong¹, Xie Xiaodong¹, Liu Pingping¹, Wu Mingzhu¹, Wang Zhong¹, Cai Changchun², Yang Jun¹ and Cao Peijian¹; ¹Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, China and

Ozvald, J.B. Jameson, J. Wang, A.L. Bates, S. Ullah, C. Yang, L.N. Jeong, D.K. Cook and I.G. Gillman; Juul Labs, Washington, DC, USA

²Tobacco Research Institute of Hubei Province, Wuhan, China

9:45AM

60. A 12 -MONTH STABILITY STUDY ON JUUL2 VIRGINIA TOBACCO AND CRISP MENTHOL FLAVOURED AEROSOLS USING TARGETED ANALYTICAL METHODS. David COOK, L.N. Jeong, J. Wang, A.L. Bates, S. Ullah, K.C Carter and V. Schwartz; Juul Labs, Washington, DC, USA

9:45AM

66. STRIGOLACTONE/NTCCD8 REGULATES LEAF ANGLE THROUGH BRASSINOSTEROID IN TOBACCO. Lin WANG, Xiaodong Xie, Chen Wang, Yalong Xu, Zhaopeng Luo, Zhong Wang, Jun Yang and Peijian Cao; Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, Henan, China

Break

TUESDAY AFTERNOON, SEPTEMBER 13, 2022

SYMPOSIUM PANEL

Flavored smoke-free products – Are they necessary?

Session Chair: Mohamadi Sarkar

10:25AM – 12:05PM

- 67. INTRODUCTIONS AND OPENING REMARKS.** Mohamadi SARKAR; Altria Client Services, Richmond, VA, USA
- 68. A QUESTION OF TASTE: THE PUBLIC HEALTH CASE FOR FLAVORED NICOTINE PRODUCTS.** Guy BENTLEY; Reason Foundation, Washington, DC, USA
- 69. PUBLIC HEALTH CONCERNS RELATED TO UNDERAGE USE OF FLAVORED SMOKE-FREE TOBACCO PRODUCTS.** Andrea VANSICKEL; Altria Client Services, Richmond, VA, USA
- 70. THE ROLE OF FLAVORS IN MIGRATING SMOKERS TO ALTERNATIVE NICOTINE PRODUCTS.** Sarah A. BAXTER; RAI Services Company, Winston-Salem, NC, USA
- 71. DISCUSSANT.** Mohamadi SARKAR; Altria Client Services, Richmond, VA, USA

PANEL DISCUSSION & AUDIENCE Q&A

12:05PM Lunch

1:00PM Poster Session

- 72. ENDS DEVICE DESIGN CONTROL.** Lise FRAISSINET, Bryan Burd, Kevin Burd, Ed Carmines and Manoj Misra; Chemular Inc, Hudson, MI, USA
- 73. SALT VS. FREE-BASE NICOTINE IN E-LIQUIDS DOES NOT IMPACT NICOTINE PLASMA LEVELS.** Ed CARMINES¹, Karen Carmines¹, Lise Fraissinet¹ and Naama Levy-Cooperman²; ¹Chemular Inc, Hudson, MI, USA and ²Altrees Research Partners, Toronto, ON, Canada
- 74. ACTUAL USER TESTING OF E-CIGARETTE AGE GATING TECHNOLOGY.** Ed CARMINES¹, Lise Fraissinet¹ and Azure Steele²; ¹Chemular Inc, Hudson, MI, USA and ²M/A/R/C[®] Research, Irving TX, USA
- 75. SIMULATED USER TESTING OF E-CIGARETTE AGE GATING TECHNOLOGY.** Ed CARMINES¹, Lise Fraissinet¹ and Azure Steele²; ¹Chemular Inc, Hudson, MI, USA and ²M/A/R/C[®] Research, LLC, Irving TX, USA
- 76. COMPARISON OF CNT SYNTHETIC AND TOBACCO DERIVED NICOTINE.** Ed CARMINES, Bryan Burd and Kevin Burd; Chemular Inc, Hudson, MI, USA
- 77. ANALYSIS OF AROMATIC ALDEHYDES IN E-VAPOR PRODUCTS BY GC-MS/MS.** Leona SIRKISOON, Lewhy Via, Jeff Zhu, and Rana Tayyarah; ITG Brands, Greensboro, NC, USA
- 78. ANALYSIS OF GLYCIDOL IN E-VAPOR PRODUCTS BY GC-MS.** Jeff ZHU, Kaylee Campbell, Kristin Pruitt and David Skinner; ITG Brands, Greensboro, NC, USA
- 79. ANALYSIS OF SELECTED ORGANIC ACIDS IN E-LIQUIDS BY ION CHROMATOGRAPHY.** Jeff ZHU, Gwen Hagerty, Erin Snead and David Skinner; ITG Brands, Greensboro, NC, USA
- 80. GLUCATELL[®] METHOD TO ASSESS THE LEVELS OF B-(1,3)-GLUCAN IN E-LIQUID AND AEROSOL SAMPLES.** Pavan ADISESHAIHAH, Deb Czarnecki, David Cook, Gene Gillman and Dan Myers; Juul Labs, Washington, DC, USA
- 81. SIMULTANEOUS DETERMINATION OF 9 ORGANIC ACIDS IN E-LIQUIDS AND AEROSOLS BY ION CHROMATOGRAPHY.** Lillian LI¹, Manali Aggarwal², Jason Chan², Huan Wang², Kate Pearce² and Dan Myers²; ¹Juul Labs, Mountain View, CA, USA and ²Juul Labs, Washington, DC, USA

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- 82. QUANTIFICATION OF SOLID PARTICULATES IN E-LIQUID AND AEROSOL IN REFERENCE CIGARETTE AND A VARIETY OF ELECTRONIC NICOTINE DELIVERY SYSTEMS (ENDS).** Lillian LI, Huan Wang, Jason Chan, Kate Pearce, Gene Gillman and Dan Myers; Juul Labs, Washington, DC, USA
- 83. GLYCIDOL MEASUREMENTS IN REFERENCE CIGARETTE SMOKE USING DIRECT INJECTION GAS CHROMATOGRAPHY COUPLED TO MASS SPECTROMETRY.** Valerie SCHWARTZ, K.M Carter, A.M. Ozvald, D.K. Cook and I.G. Gillman; Juul Labs, Washington, DC, USA
- 84. IN VITRO ASSESSMENT OF INTERNATIONAL JUUL2 PRODUCTS.** Roxana WEIL, J. Yao, K. Demir, G. Lalonde, M.J. Oldham; Juul Labs, Washington, DC, USA
- 85. HPHC MARKET MAP OF CLOSED POD-BASED E-CIGARETTES FROM THE NORTH AMERICAN MARKET: CHARACTERIZATION OF AEROSOL CARBONYLS.** Adam OZVALD, Thomas S. Cocciardi, J. Brian Jameson, Jiaming Wang, Austin L. Bates, Cameron R. Smith, Clarissa Yang, Lena N. Jeong, David K. Cook and I. Gene Gillman; Juul Labs, Washington, DC, USA
- 86. HPHC MARKET MAP OF OPEN POD-BASED E-CIGARETTES FROM THE NORTH AMERICAN MARKET: CHARACTERIZATION OF AEROSOL METALS.** Austin BATES, Sifat Ullah, Thomas S. Cocciardi, Adam M. Ozvald, J. Brian Jameson, Jiaming Wang, Cameron R. Smith, Clarissa Yang, Lena N. Jeong, David K. Cook and I. Gene Gillman; Juul Labs, Washington, DC, USA
- 87. HPHC MARKET MAP OF CLOSED POD-BASED E-CIGARETTES FROM THE NORTH AMERICAN MARKET: CHARACTERIZATION OF AEROSOL METALS.** Cameron SMITH, T.S. Cocciardi, A.M. Ozvald, J.B. Jameson, J. Wang, A.L. Bates, S. Ullah, C. Yang, L.N. Jeong, D.K. Cook and I.G. Gillman; Juul Labs, Washington, DC, USA
- 88. HPHC MARKET MAP OF OPEN POD-BASED E-CIGARETTES FROM THE NORTH AMERICAN MARKET: CHARACTERIZATION OF AEROSOL CARBONYLS.** Jiaming WANG, T.S. Cocciardi, A.M. Ozvald, J.B. Jameson, A.L. Bates, S. Ullah, C.R. Smith, C. Yang, L.N. Jeong, D.K. Cook and I.G. Gillman; Juul Labs, Washington, DC, USA
- 89. A COMPARISON OF METHODS FOR THE QUANTIFICATION OF TOBACCO-SPECIFIC NITROSAMINES (TSNAS) VIA LC-MS/MS.** Navid ADNANI, Pavan Adisheshaiah and Dan Myers; Juul Labs, Washington, DC, USA

- 90. TARGETED CHEMICAL CHARACTERIZATION OF JUUL2® PRODUCT AEROSOL AND COMPARISON WITH 3R4F REFERENCE CIGARETTE SMOKE.** Karen CARTER, D.K. Cook, V. Schwartz, A.L. Bates, S. Ullah, J. Wang and I.G. Gillman; Juul Labs, Washington, DC, USA
- 91. REPLACEMENT OF HELIUM CARRIER GAS WITH HYDROGEN CARRIER GAS FOR THE GC ANALYSIS OF NICOTINE AND WATER.** Andrew HUCKINS, Darren Steelman, Gwendolyn Hagerty and T Jeffrey Clark; Liggett Group, Mebane, NC, USA
- 92. METHOD VALIDATION TO QUANTITATE SMOKE CONSTITUENTS IN ENVIRONMENTAL TOBACCO SMOKE FROM A HEATED TOBACCO PRODUCT AND COMBUSTIBLE CIGARETTES.** Eckhardt SCHMIDT, Gary M. Dull, John Darnell, Buddy G. Brown (Contractor) and Sarah Baxter-Wright; RAI Services Company, Winston Salem, NC, USA
- 93. IN VITRO CYTOTOXICITY ASSESSMENT OF WHOLE AEROSOL/ SMOKE GENERATED FROM HEATED TOBACCO PRODUCTS AND COMBUSTIBLE CIGARETTES IN THE EPIAIRWAY TISSUE MODEL.** John WERTMAN¹, Tom Shutsky¹, Brian M. Keyser¹, Kristen Jordan¹ and Michael Hollings²; ¹RAI Services Company, Winston-Salem, NC, USA and ²Labcorp Early Development Laboratories, Harrogate, UK
- 94. ACTUAL USE STUDY OF AN ORAL NICOTINE POUCH PRODUCT.** Patrudu MAKENA¹, Erin Evans¹, Chris Campbell¹, Peter Chen¹, Hsiao-Pin Liu¹, Leanne Campbell¹, Kristen Prevet¹, Sarah Baxter¹, Rachel Hart², Mandara Shetty², Krishna Prasad², Janyra Williams³, Michael Feehan⁴, Jenny Cai⁴, Jennifer Lyden⁴ and Claudia Kanitscheider⁵; ¹RAI Services Company, Winston Salem, NC, USA, ²British American Tobacco, Southampton, UK, ³RAI Services Company (contractor), Winston-Salem, NC, USA, ⁴Cerner Enviza, Kansas City, MO, USA and ⁵Cerner Enviza, Munich, Germany
- 95. LONGITUDINAL ANALYSIS ON THE EFFECT OF E-CIGARETTE USE ON CIGARETTE SMOKING USING THE PATH ADULT STUDY.** Emery NGAMASANA¹, Red Thaddeus D. Miguel², David Huang (Intern)¹, John W. Caraway¹ and Mimi Kim¹; ¹RAI Services Company, Winston-Salem, NC, USA and ²Thera-Business, Kanata, ON, Canada
- 96. GENOTOXICITY ASSESSMENT OF HEATED TOBACCO PRODUCT AND COMBUSTIBLE CIGARETTE AEROSOLS IN THE AMES AND IN VITRO MICRONUCLEUS ASSAYS.** Kendall SZELIGA¹, John Wertman¹, Kristen Jordan¹, Dhatri Lakshmanan², Dariush Lavani² and Ian Crooks³; ¹RAI Services Company, Winston-Salem, NC, USA, ²Labstat International, Kitchner, ON, Canada and ³BAT, Southampton, UK

- 97. DISTINGUISHING TOBACCO-DERIVED NICOTINE FROM SYNTHETIC NICOTINE IN COMMERCIAL NICOTINE SAMPLES.** Gary DULL¹, Serban C. Moldoveanu² and Karen B. Kilby²; ¹RAI Services Company, Winston-Salem, NC, USA and ²R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA
- 98. A SEARCH FOR NOVEL, CRYSTALLINE NICOTINE SALTS AND COCRYSTALS.** Gary DULL¹, Andrew Carr² and Emma Sharp³; ¹RAI Services Company, Winston-Salem, NC, USA, ²Charles River Laboratories, Essex, UK and ³Johnson Matthey Pharmorphix[®], Cambridge, UK
- 99. A STUDY DESIGN OF A SINGLE-CENTER, OPEN-LABEL, PARALLEL-COHORT STUDY TO EVALUATE ENVIRONMENTAL TOBACCO SMOKE CONSTITUENTS FROM A HEATED TOBACCO PRODUCT AND COMBUSTIBLE CIGARETTES.** Gary DULL, John Darnell, Milly Kanobe, Eckhardt Schmidt, Sarah Baxter-Wright and Buddy G. Brown (Contractor); RAI Services Company, Winston-Salem, NC, USA
- 100. A TWO-ARM RANDOMIZED, WITHIN-ARM CROSSOVER STUDY IN CONFINEMENT TO ASSESS ABUSE LIABILITY OF GLO HEATED TOBACCO PRODUCTS.** Kyung-soo (Jason) HONG, Kristen Prevette, Peter Chen, Eckhardt Schmit, Shana Burns, Patrudu Makena and Sarah A. Baxter-Wright; RAI Services Company, Winston-Salem, NC, USA
- 101. A SINGLE ARM, RANDOMIZED CROSS OVER STUDY IN CONFINEMENT TO ASSESS ABUSE LIABILITY AND NICOTINE PHARMACOKINETICS OF VUSE ALTO ENDS.** Kyung-soo (Jason) HONG, Kristen Prevette, Gwyn Gibson, Herman Krebs, Eckhardt Schmidt, Tao Jin, Sarah Ayoku, Tom Kirby, Patrudu Makena and Sarah A. Baxter-Wright; RAI Services Company, Winston-Salem, NC, USA
- 102. THE USE OF CONNECTED DEVICES IN HUMAN RESEARCH.** Robert UNDERLY¹, Bradley Brown² and Sarah Baxter-Wright¹; ¹RAI Services Company, Winston-Salem, NC, USA and ²Carolina Medical Electronics, East Bend, NC, USA
- 103. CYTOTOXICITY ASSESSMENT OF HEATED TOBACCO PRODUCT AND COMBUSTIBLE CIGARETTE AEROSOLS UTILIZING WHOLE AEROSOL EXPOSURE IN THE NEUTRAL RED UPTAKE ASSAY.** Kristen JORDAN¹, Robert Leverette¹, Thomas Shutsky¹ and Rebecca Payne²; ¹RAI Services Company, Winston-Salem, NC, USA and ²Labcorp Early Development Laboratories, Harrogate, UK
- 104. TOBACCO HARM REDUCTION: A CHEMISTRY PERSPECTIVE OF THE RISK CONTINUUM.** Carlton BEQUETTE; R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA

105. ASSOCIATION BETWEEN INITIAL SOME DAYS OR EVERY DAY USE OF E-CIGARETTES AND SUBSEQUENT REGULAR CIGARETTE SMOKING AMONG ADULTS. Red Thaddeus MIGUEL¹, Emery L. Ngamasana², Mimi M. Kim² and Geoffrey M. Curtin³; ¹Thera-Business, Kanata, ON, Canada, ²RAI Services Company, Winston-Salem, NC, USA and ³Womble Bond Dickinson, Winston-Salem, NC, USA

Session A

Perception & Behavior Studies

Session Chair: Tiffany Parmis

1:45PM

106. FDA-CTP AND CDISC PROJECT TO DEVELOP TOBACCO RELATED STANDARDS TO ACHIEVE EFFICIENCIES FOR ALL STAKEHOLDERS. Rhonda FACILE¹ and Amy Malla²; ¹CDISC, Austin, TX, USA and ²U.S. Food and Drug Administration, Silver Spring, MD, USA

2:10PM

107. ASSESSING THE US POPULATION HEALTH IMPACT OF INTRODUCING A NEW E-CIGARETTE PRODUCT TO MARKET USING INTENTIONS TO USE DATA. Thomas VERRON, Mengran Guo, Thomas Nahde, Grant O'Connel and Xavier Cahours; Imperial Brands, Bristol, UK

2:30PM

108. SOCIAL AND BEHAVIORAL SCIENCE RESEARCH: BEST PRACTICES & METHODOLOGICAL CONSIDERATIONS FOR INDUSTRY. Jessica ZDINAK¹ and James Grice²; ¹Applied Research and Analysis Consulting, Richmond, VA,

Session B

Oral Product Method Development & Characterization

Session Chair: Fraser Williamson

1:45PM

114. HARMFUL AND POTENTIALLY HARMFUL CONSTITUENTS IN SELECTED NOVEL NICOTINE POUCH PRODUCTS IN COMPARISON WITH TOBACCO BASED NICOTINE DELIVERY PRODUCTS AND PHARMACEUTICAL NICOTINE REPLACEMENT THERAPY PRODUCTS (NRTS). Johan REDEBY, Susanne Back, Anna Masser, Lars Rutqvist, Johan Lindholm and Johan Redeby; Swedish Match, Stockholm, Sweden

2:10PM

115. NICOTINE CHARACTERIZATION IN MODERN ORAL NICOTINE POUCH PRODUCTS. Andrew CHEETHAM, Bonnie G. Coffa and Susan E. Plunkett; Enthalpy Analytical, Richmond, VA, USA

2:30PM

116. MODIFIED QuEChERS METHOD FOR THE EXTRACTION OF NICOTINE FROM ORAL TRADITIONAL AND INNOVATIVE TOBACCO PRODUCTS USING UPLC-MS/MS. Vanessa LOPEZ, Fadi

USA and ²Oklahoma State University, Stillwater, OK, USA

Aldeek and John H. Miller; Altria Client Services, Richmond, VA, USA

2:50PM

2:50PM

109. ASSESSMENT OF PERCEPTIONS AND INTENTIONS TO USE VITRO AND VITRO-AC ENDS AMONG CURRENT, FORMER AND NON-SMOKERS. Ian M. FEARON¹, Christopher Russell², Ryan G. N. Seltzer³, Trisha L. Houser⁴, Mitchell Nides⁵, Xiang Gao⁶, Yatao Liu⁶ and Fany Guo⁷; ¹whatIF? Consulting, Harwell, Oxfordshire, UK, ²Russell Burnett Research and Consultancy, Glasgow, UK, ³Safety in Numbers, Tucson, AZ, USA, ⁴Houser Clinical Research Writing and Consulting, Durham, NC, USA, ⁵LA Clinical Trials, Burbank, CA, USA, ⁶Scientific Horizons Consulting, Irvine, CA, USA and ⁷Shenzhen JWEI Electronics Co, Shenzhen, China

117. TECHNIQUE FOR NICOTINE POLACRILEX ANALYSIS. Serban MOLDOVEANU; R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA

Break

Session A
Toxicology & Public Health
Session Chair: Rana Tayyarah

SYMPOSIUM PANEL
FDA Validation and Q&A
Session Chair: Fraser Williamson

3:30PM

3:30PM – 4:50PM

110. REGULATORY AND NON-REGULATORY DRIVERS OF ESG ADOPTION WITHIN THE REDUCED HARM NICOTINE PRODUCTS INDUSTRY. Gwendolyn LUCHA; Cardno ChemRisk now Stantec, Houston, TX, USA

118. METHOD VALIDATION GUIDANCE PRACTICES: A COMPREHENSIVE REVIEW OF PROPOSED METHODOLOGY IN ENDS ANALYSIS. A. PENNINGTON, K. Humphries, I.G. Gillman and Q. Liang; Juul Labs, Washington, DC, USA

3:50PM

111. WHERE CIGARETTES SERVE AS CURRENCY...CAN VAPING BE BETTER? REDUCING HARM FOR PEOPLE IN CUSTODY. Cheryl OLSON; McKinney Regulatory Science Advisors, San Carlos, CA, USA

119. FDA'S GUIDANCE ON VALIDATION AND VERIFICATION OF ANALYTICAL TESTING METHODS USED FOR TOBACCO PRODUCTS. Melis CORAGGIO, Jeffery Ammann and Todd Cecil; FDA Center for Tobacco Products, Calverton, MD, USA

4:10PM

112. STATISTICALLY OPTIMIZING YOUTH RISK AND SMOKING CESSATION: A NOVEL, DATA-DRIVEN APPROACH TO EVALUATE APPROPRIATENESS FOR THE PROTECTION OF PUBLIC

HEALTH. Ryan SELTZER¹, Jessica Parker-Zdinak² and Ian M. Fearon³; ¹Safety in Numbers, Tucson, AZ, USA, ²Applied Research and Analysis Consulting, Richmond, VA, USA and ³whatIF? Consulting, Harwell, UK

4:30PM

113. ANALYSIS OF TOXICITY ASSAY OPTIONS FOR DATA POOR CHEMICAL INHALATION LIMIT SETTING: FLAVORS AS A CASE STUDY. Melissa VINCENT¹,

Heidi C O'Neil², Andrew Maier¹, Amanda N Buerger¹ and Amy K Madl³; ¹Cardno ChemRisk now Stantec, Cincinnati, OH, USA, ²Cardno ChemRisk now Stantec, Boulder, CO, USA and ³Cardno ChemRisk now Stantec, Orange County, CA, USA

5:00 PM – TSRC Business Meeting – All attendees are encouraged to attend.

6:30 PM – Reception and Banquet

Adjourn

WEDNESDAY MORNING, SEPTEMBER 14, 2022

Session A
Pharmacokinetics & Modeling
Session Chair: TC Deluca

Session B
Perception & Behavior Studies
Session Chair: Willie Tran

8:30AM

123. FORWARD DOSIMETRY MODELING OF CIGARETTE SMOKE HPHCS IN HUMANS USING OPEN-SOURCE PBPK

120. DISCUSSANT. I.G. GILLMAN, Juul Labs, Washington, DC, USA

121. DISCUSSANT. Pete JOZA, Labstat International, Kitchener, ON, Canada

122. DISCUSSANT. Todd CECIL, FDA CTP, Washington, DC, USA

PANEL DISCUSSION & AUDIENCE Q&A

8:30AM

133. ACTUAL USE STUDY OF A HEATED TOBACCO PRODUCT. Mandara SHETTY¹, Rachel Hart¹, Erin Evans², Chris Campbell², Patrudu

MODELING. Jingjie ZHANG¹, K. Monica Lee², David Hines³, Bethany Cook³ and Shannon Bell³; ¹ALCS, Glen Allen, VA, USA, ²Altria Client Services, Richmond, VA, USA and ³Integrated Laboratory Systems, Morrisville, NC, USA

Makena², Peter Chen², Hsiao-Pin Liu², Leanne Campbell², Janyra Williams², Kristen Prevette², Krishna Prasad¹, Sarah Baxter², Michael Feehan³, Jennifer Lyden³ and Claudia Kanitscheider⁴; ¹British American Tobacco, Southampton, UK, ²RAI Services Company, Winston-Salem, NC, USA, ³Cerner Enviza, Kansas City, MO, USA and ⁴Cerner Enviza, Munich, Germany

8:55AM

124. NICOTINE PHARMACOKINETICS OF VELO AND VELO MAX NICOTINE POUCHES IN A RANDOMISED CROSS-OVER STUDY. Michael MCEWAN¹, Linsey Haswell¹, Filimon Meichanetzidis¹, George Hardie¹, Sarah Baxter-Wright² and Tao Jin²; ¹British American Tobacco, Southampton, Hampshire, UK and ²Reynolds American, Winston-Salem, NC, USA

8:55AM

134. ACTUAL USE PUFFING TOPOGRAPHY AND MOUTH LEVEL EXPOSURE (MLE) TO AEROSOL AND NICOTINE FOR AN EVOLVING SERIES OF ELECTRONIC NICOTINE DEVICE SYSTEMS (ENDS). Krishna PRASAD, Adam Gray and Lauren Edward; British American Tobacco, Southampton, Hampshire, UK

9:15AM

125. PHARMACOKINETICS OF FREEBASE NICOTINE AND NICOTINE SALTS FOLLOWING SUBCUTANEOUS ADMINISTRATION IN RATS. Hongwei HOU, Ya'ning Fu, Shulei Han, Huan Chen, Yuan Zhang, Ruijuan Miao, Peipei Ren, Pengpeng Yu, Zhihao Shi, Yushan Tian, Hongjuan Wang, Tong Liu and Qingyuan Hu; China National Tobacco Quality Supervision and Test Center, Zhengzhou, Henan, China

9:15AM

135. PREVALENCE ESTIMATES OF PRODUCT SPECIFIC ENDS USE AMONG A NATIONALLY REPRESENTATIVE SAMPLE OF YOUTH AND ADULTS IN THE UNITED STATES. Neil MCKEGANEY, Andrea Patton and Gabe Barnard; Centre for Substance Use Research, Glasgow, Scotland

9:35AM

126. NRF2 RESPONSES IN A 3D HUMAN AIRWAY MODEL EXPOSED TO WHOLE AEROSOL FROM COMBUSTIBLE CIGARETTES OR HEATED TOBACCO PRODUCTS. Brian KEYSER¹, John Wertman¹, Kristen

9:35AM

136. CONSUMER-REPORTED OUTCOME MEASURE (CROM) GUIDELINES WITH RESPECT TO DESCRIPTIVE-CROM FOR RESEARCH ON TOBACCO AND NICOTINE-CONTAINING PRODUCTS. Lai WEI¹ on behalf of

Jordan¹ and Michael Hollings²; ¹RAI Services Company, Winston-Salem, NC, USA and ²Labcorp Early Development Laboratories, Harrogate, UK

the CROM Task Force, Mohamadi Sarkar¹, Emilie Clerc², Christelle Chrea², Mandara Shetty³, Krishna Prasad³, Mimi Kim⁴ and Nicholas Goldenson⁵; ¹Altria Client Services, Richmond, VA, USA, ²PMI R&D, Philip Morris Products S.A., Neuchâtel, Switzerland, ³British American Tobacco, Southampton, UK, ⁴RAI Services Company, Winston-Salem, NC, USA and ⁵Juul Labs, Washington, DC, USA

9:55AM

127. APPLICATION OF PHARMACOKINETIC MODELLING TO PREDICT NICOTINE BLOOD PROFILES ASSOCIATED WITH VARYING E-LIQUID NICOTINE PROTONATION. Sharlee MORE¹, Amy Madl², Stephanie Thornton³ and Kenneth Unice³; ¹Cardno ChemRisk, Portland, OR, USA, ²Cardno ChemRisk, Aliso Viejo, CA, USA and ³Cardno ChemRisk, Pittsburgh, PA, USA

9:55AM

137. DESIGN OF A MULTI-SITE, OPEN-LABEL, 8-WEEK, PROSPECTIVE OBSERVATIONAL ACTUAL USE STUDY. Erin EVANS¹, Rachel Hart², Mandara Shetty², Chris Campbell¹, Patrudu Makena¹, Peter Chen¹, Hsiao-Pin Liu¹, Leanne Campbell¹, Janyra Williams¹, Kristen Prevette¹, Sarah Baxter¹, Michael Feehan³, Jenny Cai³, Jennifer Lyden³ and Claudia Kanitscheider⁴; ¹RAI Services Company, Winston-Salem, NC, USA, ²British American Tobacco, Southampton, UK, ³Cerner Enviza, Kansas City, MO, USA and ⁴Cerner Enviza, Munich, Germany

Break

Session A
Product Design & Chemistry
Session Chair: TC Deluca

Session B
Water Pipe Methods
Development & Characterization
Session Chair: Willie Tran

10:35AM

128. MECHANICALLY GENERATED SURFACE STRUCTURES ON TIPPING PAPER AND THEIR EFFECTS ON HAPTIC AND VISUAL CHARACTERISTICS. Michael LINDNER; Tannpapier GmbH, Traun, Austria

10:35AM

138. AMOUNT/COMPOSITION OF FLUIDS EXPRESSED UNDER PRESSURE FROM CONTEMPORARY DOMESTIC AND OFF-SHORE MANUFACTURED WATERPIPE TOBACCOS AND PARTICLE SIZE DISTRIBUTION ±5 MM AS ESTIMATES OF PERFORMANCE OF THESE PRODUCTS DURING

10:55AM

129. RESEARCH ON MORPHOLOGICAL DETECTION METHOD OF CUT TOBACCO BASED ON TWO-DIMENSIONAL FLUIDIZED BED AND HIGH-SPEED IMAGING

TECHNOLOGY. Wenkui ZHU¹, Liu Hongkun¹, Li Bin¹, Deng Guodong¹, Su Ziqi¹, Hejin², Dingding² and Zhanghaobo²; ¹Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, Henan, China and ²Shanghai Tobacco Group Company, Shanghai, China

11:15AM

130. RESEARCH ON XGBOOST MODEL BASED MACHINE LEARNING INVERSE PREDICTION ALGORITHM FOR TAR

QUANTIFICATION. Jian ZHOU¹, Liu Yanju¹, Li Xiaopeng¹, Shi Fengcheng¹, Zhang Xiaolin¹, Huang Xin¹, Zou Yuanwen², He Gang³, Nie Cong⁴ and Sun Xuehui⁴; ¹China Tobacco Sichuan Industrial, Chengdu, Sichuan, China, ²Sichuan University, Chengdu, Sichuan, China, ³Southwest University of Science and Technology, Mianyang, Sichuan, China and ⁴Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, Henan, China

11:35AM

EMISSIONS TESTING USING ISO 22486: 2019. PART 1. RATIONALE AND SAMPLE PREPARATION PROCEDURES.

John LAUTERBACH; Lauterbach & Associates, Macon, GA, USA

10:55AM

139. AMOUNT/COMPOSITION OF FLUIDS EXPRESSED UNDER PRESSURE FROM CONTEMPORARY DOMESTIC AND OFF-SHORE MANUFACTURED WATERPIPE TOBACCOS AND PARTICLE SIZE DISTRIBUTION ±5 MM AS ESTIMATES OF PERFORMANCE OF THESE PRODUCTS DURING EMISSIONS TESTING USING ISO 22486: 2019. PART 2. TESTING PROCEDURES AND RESULTS.

John LAUTERBACH; Lauterbach & Associates, Macon, GA, USA

11:15AM

140. DEVELOPMENT OF AN ELECTRICALLY HEATED PHUNNEL BOWL FOR USE WITH WATERPIPE TOBACCOS.

John LAUTERBACH; Lauterbach & Associates, Macon, GA, USA

11:35AM

131. THE EFFECT OF ETHYL PALMITATE ON THE RELEASE OF AROMA COMPOUNDS IN THE PROPANEDIOL-ETHANOL SOLUTION AND ITS MECHANISM.
Hui XI; Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, Henan, China

11:55AM

132. DETERMINATION OF 21 SENSORY AMIDES IN MAINSTREAM CIGARETTE SMOKE BY GAS CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY COMBINED WITH DISPERSIVE SOLID PHASE EXTRACTION.

Lining PAN; Zhengzhou Tobacco Research Institute of CNTC, Zhengzhou, Henan, China

141. PREPARATION AND TESTING OF REFERENCE PRODUCTS FOR EVALUATION OF WATERPIPE TOBACCOS. John LAUTERBACH; Lauterbach & Associates, Macon, GA, USA

Adjourn