



72nd TOBACCO SCIENCE RESEARCH CONFERENCE
September 16-19, 2018
Memphis, Tennessee USA

Preliminary Program (12 September 2018v.2)

Sunday, September 16, 2018

3:00 PM - University of Kentucky CTRP Proficiency Program Workshop

6:30 PM – Welcome Reception hosted by American Snuff Company and RAI Services Company

Monday Morning, September 17, 2018

General Session

8:45 WELCOME: Christopher Junker, RAI Services Company, 72nd TSRC Chair

8:55 SYMPOSIUM: "Building Science and Evidence in The Regulated Tobacco Landscape"
Chair: Kathy Humphries, Enthalpy Analytical, Durham, NC, USA

9:00 1. IMPORTANCE OF SCIENCE TO FDA'S CENTER FOR TOBACCO PRODUCTS.
Matthew R. HOLMAN; U.S. Food & Drug Administration, Silver Spring, MD USA

9:30 2. A RISK-BASED APPROACH TO TOBACCO PRODUCT DEVELOPMENT & CONTROL.
Katherine CIAMBRONE; ITG Brands, Greensboro, NC USA

10:00 Break

10:30 3. THE ROLE OF NON-COMBUSTED PRODUCTS IN TOBACCO HARM REDUCTION.
Jason W. FLORA, Maria Gogova and Mohamadi Sarkar; Altria Client Services LLC, Richmond, VA USA

11:00 4. THE IMPACT OF FDA REGULATION, A CRO'S PERSPECTIVE ON CHANGES IN THE INDUSTRY.
I. Gene GILLMAN; Enthalpy Analytical LLC, Durham, NC USA

11:30 Panel discussion with all symposium speakers

12:00 Lunch

1:00 Poster Session

5. EFFECT OF THE ADDITION OF SBA-15 IN THE PYROLYSIS OF A REFERENCE TOBACCO UNDER INERT AND OXIDIZING ATMOSPHERE. Emilio CALABUIG, Antonio Marcilla and Maria Isabel Beltrán; University of Alicante, San Vicente del Raspeig, Spain

6. QUALITATIVE ASSESSMENT OF FLAVOR INGREDIENTS IN MARKET ELECTRONIC NICOTINE DELIVERY SYSTEMS. Amanda G. HUDSON; R. J. Reynolds Tobacco Company and Courtney G. Culbert; RAI Services Company, Winston-Salem, NC, USA

7. WITHDRAWN

8. USE OF CILIA BEAT FREQUENCY IN AN IN VITRO AIRWAY MODEL (EPIAIRWAY-FT) AS A TOOL FOR ASSESSING VIABILITY. Amber WOODHAMS, Darren Kidd and M Hollings; Covance, Harrogate, UK

9. TOXICOLOGICAL ASSESSMENT OF E-LIQUID FORMULATIONS USING IN VITRO GENOTOXICITY AND CYTOTOXICITY ASSAYS. Bonnie G. COFFA, Utkarsh Doshi, Jingjie Zhang, Willie J. McKinney and K. Monica Lee; Altria Client Services LLC, Richmond, VA, USA



10. EVALUATION OF NOVEL, ORAL TOBACCO-DERIVED NICOTINE PRODUCTS FOR HPHCS. Timothy L. DANIELSON, Christopher B. McFarlane, Anthony P. Brown, Xiaohong Jin, Celeste T. Wilkinson, Yezdi B. Pithawalla and Willie J. McKinney Jr.; Altria Client Services LLC, Richmond VA USA

11. QUANTIFICATION OF NICOTINE RELATED IMPURITIES IN NOVEL, ORAL TOBACCO-DERIVED NICOTINE PRODUCTS. Timothy L. DANIELSON, Christopher B. McFarlane, Michael R. Noe, Yezdi B. Pithawalla and Willie J. McKinney Jr.; Altria Client Services LLC, Richmond VA USA

12. EQUIVALENCE TESTING IN DEMONSTRATING SUBSTANTIAL EQUIVALENCE FOR NEW TOBACCO PRODUCTS. Kimberly FROST-PINEDA¹, Leanne R. Campbell¹, Michael Polster² and Geoffrey M. Curtin¹; ¹RAI Services Company, Winston Salem, NC, USA, ²Naxion, Philadelphia, PA, USA

13. METHOD DEVELOPMENT FOR PH ANALYSIS OF ENDS AEROSOL AND E-LIQUID. Tracy HEFNER¹, F. Kelley St.Charles², and Justin Anderson³; ¹R.J. Reynolds Tobacco Company, ²St.Charles Consultancy, ³Eurofins Lancaster Labs, Winston Salem, NC

14. GENOTOXICITY EVALUATION OF TOBACCO AND NICOTINE DELIVERY PRODUCTS: PART 1. MOUSE LYMPHOMA ASSAY. Robert LEVERETTE, Betsy Bombick, Kathy Fowler; RAI Services Company, Winston-Salem, NC USA, Damien Breheny, Marianna Gaca, David Thorne; British American Tobacco (Investments) Ltd., Southampton, UK, Julie Clements, Mel Lloyd, Stephen McEnaney; Covance Laboratories Ltd, Harrogate, UK

15. GENOTOXICITY EVALUATION OF TOBACCO AND NICOTINE DELIVERY PRODUCTS: PART 2. IN VITRO MICRONUCLEUS ASSAY. Robert LEVERETTE, Betsy Bombick, Kathy Fowler; RAI Services Company, Winston-Salem, NC USA, Damien Breheny, Marianna Gaca, David Thorne; British American Tobacco (Investments) Ltd., Southampton, UK, Julie Clements, Stephen McEnaney, James Whitwell; Covance Laboratories Ltd, Harrogate, UK

16. CHARACTERIZATION OF THE VITROCELL® HIGH THROUGHPUT EXPOSURE MODULES USING DIFFERENT TOBACCO PRODUCT TYPES. Robert LEVERETTE, Brian Keyser, Betsy Bombick; RAI Services Company, Winston-Salem, NC USA, Michael Hollings, Adam Seymour; Covance Laboratories Ltd, Harrogate, UK

17. DEVELOPMENT OF A 3D HUMAN ORAL TISSUE MODEL FOR ORAL PERMEATION OF SMOKELESS MOIST SNUFF. Brian KEYSER¹, Jannell Rowe², Randy Weidman² and Wanda Fields¹; ¹RAI Services Company, ²R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA

18. DEVELOPMENT OF A SMALL AIRWAY LUNG MODEL USING MICROFLUIDIC LUNG-ON-A-CHIP DEVICE. Patrudu MAKENA, GL.Prasad; RAI Services Company, Winston Salem, NC USA, D. Gordon, D. Haithcock, B. Prabhakarandian, K. Pant; SynVivo Inc., Huntsville, AL USA

19. MICROFLUIDIC SMALL AIRWAY LUNG MODEL FOR TOXICITY SCREENING OF TOBACCO PRODUCTS. Patrudu MAKENA, GL.Prasad; RAI Services Company, Winston Salem, NC USA, D. Gordon, D. Haithcock, B. Prabhakarandian, K. Pant; SynVivo Inc., Huntsville, AL USA

20. MECHANISMS FOR WSCM INDUCED CYTOTOXICITY TO HUMAN AORTIC ENDOTHELIAL CELLS. OM MAKWANA¹, Hannah Flockton², Gina Smith², Gary Watters², Rizwan Nisar²; ¹Wanda Fields and ¹Betsy Bombick; ¹RAI Services Company, Winston-Salem, NC USA, ²Covance Laboratories Ltd, Harrogate,UK

21. NON-TARGETED ANALYSIS FOR DIFFERENTIAL SCREENING OF TOBACCO SAMPLES. John H. MILLER IV, Yezdi Pithawalla, Timothy L. Danielson, and Dongmei Xu; Altria Client Services, Richmond, Virginia, USA

22. THERMAL PROFILING METHODS FOR THE EVALUATION OF ELECTRONIC NICOTINE DELIVERY SYSTEMS (ENDS). Rebecca ROGERS, David T. Szabo, Josef Strasser; RAI Services Co., and Cory Reynolds; RJ Reynolds Tobacco Company, Winston-Salem, NC USA



23. A NOVEL APPROACH TO THE ASSESSMENT OF ELECTRONIC CIGARETTE TOPOGRAPHY CHARACTERISTICS. Jeffrey S. SMITH; RAI Services Company, and Steven Alderman; RAI Innovations Company, Winston-Salem, NC USA

24. LOW COST ELECTROCHEMICAL SENSOR AS A MEANS FOR DETERMINING DRY WICK CONDITIONS IN TANK ENDS DEVICES. Ian TINDALL and Timothy Mason; Cerulean, Milton Keynes, UK

25. APPLICATION AND USE OF E-CIGARETTES HPHC METHODS FOR THE ANALYSIS OF HEATED TOBACCO PRODUCTS. Gene GILLMAN, Kathy Humphries, Alexandra Martin, Sarah Lassiter and Jacob Hilldrup; Enthalpy Analytical LLC, Durham, NC USA

26. BENCHMARK DOSE MODELING OF GENOMIC DATA TO ASSESS THE FUNCTIONAL EFFECTS OF CIGARETTE SMOKE EXPOSURE ON PERIPHERAL BLOOD MONONUCLEAR CELLS. Gang LIU, Quynh T. Tran and GL Prasad; RAI Services Company, Winston Salem, NC, USA

27. EFFECTS OF SMOKING ON SEMINAL CYTOKINE NETWORK. Alexander Emeakpor OMU and Florence Emadinwe Omu; University of Kuwait, Safat, Kuwait

28. ANALYSIS OF TRIMETHYLAMINE IN MAINSTREAM CIGARETTE SMOKE. Jeff ZHU, Charles Brooks, Natalie Boyd and Rana Tayyarah; ITG Brands, LLC Greensboro NC USA

29. ANALYSIS OF FURFURAL IN MAINSTREAM CIGARETTE SMOKE BY GC-MS. Jeff ZHU, Charles Brooks, David Zich and Natalie Boyd; ITG Brands, LLC Greensboro NC USA

30. COMPARISONS OF DEPENDENCE ON CIGARETTES AND E-CIGARETTES: DATA FROM THE PATH STUDY. Mimi M. KIM¹, Saul Shiffman² and Mark Sembower²; ¹RAI Services Company, Winston-Salem, NC USA, ²PinneyAssociates, Inc., Pittsburgh PA USA

31. USE PATTERNS AND TOBACCO USE HISTORIES AMONG USERS OF DIVERSE VAPOR PRODUCTS: CIGALIKES, TANKS, AND OTHER VAPOR PRODUCTS. Mimi M. KIM¹, Saul Shiffman² and Mark Sembower²; ¹RAI Services Company, Winston-Salem, NC USA, ²PinneyAssociates, Inc., Pittsburgh PA USA

32. DETERMINATION OF INDOGENOUS AND LEACHABLE METALS BY ICPMS. Donald C. STOGNER, Benjamin Stevenson, Jamil Gray, Danielle N. Benner, Carl Adams and Salem Chouchane; Eurofins Lancaster Laboratories PSS, Winston-Salem, NC, USA

33. WATER ANALYSIS BY VOLUMETRIC KARL FISCHER TITRATION USING DIRECT HEATING AND TRANSFER TO THE KARL FISCHER TITRATOR. Donald C. STOGNER, Danielle N. Benner, Benjamin Stevenson, Carl Adams and Salem Chouchane; Eurofins Lancaster Laboratories PSS, Winston-Salem, NC, USA

34. INFLUENCE OF THE TIME OF SYNTHESIS OF SBA-15 ON ITS EFFECT AS A CATALYST REDUCING TOXICANT CONCENTRATION IN TOBACCO SMOKE. Nerea JUÁREZ-SERRANO, Antonio Marcilla and María Isabel Beltrán; University of Alicante, San Vicente del Raspeig, Spain

35. DETERMINATION OF SELECT LEACHABLE COMPOUNDS IN ELECTRONIC CIGARETTE AEROSOL AND LIQUID BY LCMSMS. Kamal J. RASHMAWI, Nolan Spann; Aldonis Porter, Carl Adams and Salem Chouchane; Eurofins Lancaster Laboratories PSS, Winston-Salem, NC, USA

36. TRENDS IN US SMOKERS' PERCEPTIONS OF THE RELATIVE RISKS OF NON-COMBUSTIBLE TOBACCO PRODUCTS VERSUS CIGARETTES. Geoffrey M CURTIN¹, Saul Shiffman², Jeff Rohay² and Steve Pype²; ¹RAI Services Company, Winston-Salem, NC USA, ²PinneyAssociates, Pittsburgh, PA USA



37. MULTI-DIMENSIONAL TIPPING POINT ANALYSES: ASSESSING SIMULTANEOUS SHIFTS IN TOBACCO USE PATTERNS FROM A HIGHER TO A LOWER RISK PRODUCT. Geoffrey M CURTIN¹, Annette Bachand² and Sandra Sulsky²; ¹RAI Services Company, Winston-Salem, NC USA, ²Ramboll US Corporation, Amherst, MA USA

38. COMPARING DIRECT AND INDIRECT ASSESSMENTS OF PERCEPTIONS OF REDUCED RISK FOR A MODIFIED-RISK TOBACCO PRODUCT. Saul SHIFFMAN¹ and Geoffrey M Curtin²:
¹PinneyAssociates, Pittsburgh, PA USA, ²RAI Services Company, Winston Salem, NC USA

39. CONSUMERS' PERCEPTIONS OF DISEASE-SPECIFIC MODIFIED-RISK CLAIMS ARE BEST EVALUATED IN A DISEASE-SPECIFIC MANNER. Saul SHIFFMAN¹ and Geoffrey M Curtin²:
¹PinneyAssociates, Pittsburgh, PA USA, ²RAI Services Company, Winston Salem, NC USA

40. DETERMINATION OF SELECT LEACHABLE COMPOUNDS IN ELECTRONIC CIGARETTE AEROSOL BY GCMS. Nathan WEISNER, Carl J. Adams and Salem Chouchane; Eurofins Lancaster Laboratories PSS, Winston-Salem, NC, USA

41. ANALYSIS OF TOBACCO SPECIFIC NITROSAMINES IN ELECTRONIC CIGARETTE LIQUID BY LCMSMS. Nolan D. SPANN, Angela Seamans, Carl J. Adams and Salem Chouchane; Eurofins Lancaster Laboratories PSS, Winston-Salem, NC, USA

42. IDENTIFICATION OF HARMFUL AND POTENTIALLY HARMFUL CONSTITUENTS IN TOBACCO SMOKE PRODUCED FROM LOW- AND HIGH-NICOTINE CIGARETTE TOBACCO FILLERS. Walter B. WILSON and Lane C. Sander; National Institute of Standards and Technology, Gaithersburg, MD, USA

43. EFFECT OF SBA-15 ON THE THERMAL DECOMPOSITION OF NNK AND NNN TOBACCO SPECIFIC NITROSAMINES. J. ASENSIO, A. Marcilla and M. I. Beltrán; University of Alicante, San Vicente del Raspeig, Spain

44. COMPARATIVE MEASUREMENTS OF PUFF AEROSOL SIZE AND CONCENTRATION OF COMBUSTION, HEATED TOBACCO, AND LIQUID E-CIGARETTES BY LIGHT SCATTERING METHOD. Donald J HOLVE¹ and Jaap Hoornstra²; Envirometrix Instruments LLC, ¹Berkeley, CA, USA, ²Sint Maartensbrug, Netherlands

45. A STREAMLINED MEANS OF OUTLIER DETECTION IN COLLABORATIVE AND PROFICIENCY STUDIES. Stacey SLONE, Brent Shelton, Andrew Shearer and Socrates Canete; University of Kentucky, Lexington, KY, USA

46. THE QUANTITATION OF VOLATILE NITROSAMINES IN MAINSTREAM TOBACCO SMOKE BY GAS CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY (GC-MS/MS) USING DIRECT SAMPLE BAG COLLECTION. Elizabeth A. COWAN, W. Rucks Winkeljohn, Joseph G. Lisko and Liza Valentin-Blasini; Centers for Disease Control and Prevention, Atlanta, GA, USA

47. CUMULATIVE PROBABILISTIC RISK ASSESSMENT TO CHARACTERIZE RISK OF COMBUSTIBLE TOBACCO PRODUCTS. Karshak KOSARAJU, Felix Ayala-Fierro, Ed Robinson and Ashley Turner; ITG Brands, Greensboro, NC USA

48. SURVEY OF NICOTINE, NNK, NNN, PH AND PHYSICAL PROPERTIES OF LITTLE CIGARS IN THE US MARKET PLACE. Youbang LIU¹, Matthew D. Hassink¹, Kenneth M. Taylor¹, Cliff Watson², Dana Chafin², Tameka Lawler², Liza Valentin-Blasini², Brett Kimbrall²; ¹U.S. Food and Drug Administration, Silver Spring, MD USA, ²Centers for Disease Control and Prevention, Atlanta, GA USA



- 49. ASSESSMENT OF IN VITRO TOXICITY/GENOTOXICITY OF ENDS AND COMBUSTIBLE PRODUCTS.** Kristen JORDAN¹, Betsy Bombick¹, Bethany Cooper¹, Robert Leverette¹, Tom Shutsky¹, Casandra West¹, Josef Strasser¹, Elaine Round¹, Kristin Marano¹, Rafik Momin², Amit Trivedi², Wendy Wagstaff², Shannon Bruce³, Emily Dakoulas³, Shambhu Roy³; ¹RAI Services Company, Winston-Salem, NC USA, ²Labstat International ULC, Kitchener, ON, Canada, BioReliance Corp, Rockville, MD USA
- 50. ESTABLISHMENT OF THE METHOD FOR THE ANALYSIS OF PHTHALATES IN E-CIGARETTE REFILL SOLUTION AND AEROSOL.** Hoil KANG, Hyoung Joon Park, Seok Heo, Jin Hee Lee, Dong Gu Lee and Seongsoo Park; Ministry of Food and Drug Safety, Chungcheongbuk-do, Republic of Korea
- 51. EVALUATION OF FILTER DENSITY VS FILTER PRESSURE DROP FOR CHARACTERIZING CELLULOSE ACETATE FILTERS.** Kevin R. NORFLEET and Ray Robertson; Celanese Corporation, Narrows, VA USA
- 52. ABUSE LIABILITY ASSESSMENT OF THREE NON-MENTHOL ENDS PRODUCTS RELATIVE TO COMBUSTIBLE CIGARETTES AND NICOTINE GUM.** Christine CAMPBELL, Tao Jin, Megan J. Whelen, Erin H. Evans and Sarah Baxter; RAI Services Company, Winston-Salem, NC, USA
- 53. NEUTRAL RED UPTAKE (NRU) CYTOTOXICITY ANALYSIS OF AEROSOL GENERATED FROM A TEMPERATURE-REGULATED NICOTINE-SALT BASED ENDS PRODUCT.** Manoj MISRA¹, Gene Gilman² and Pooja Desai²; ¹JUUL Labs, San Francisco, CA USA, ²Enthalpy Analytical, Inc. Richmond, VA, USA
- 54. CHALLENGES AND OPPORTUNITIES IN CIGAR SCIENCE.** Jennifer H. SMITH¹, Shamina M. Aubuchon¹, Karl A. Wagner¹, Willie J. McKinney¹, Gene Gillman², Rob Stevens³; ¹Altria Client Services LLC, Richmond, VA, USA, ²Enthalpy Analytical, Henrico, VA, USA, ³ITG Brands LLC, Greensboro, NC, USA
- 55. EFFECT OF CHANGES IN CIGARETTE INPUT PARAMETERS AND DISTRIBUTIONS ON PROBABILISTIC RISK ASSESSMENT.** Edward ROBINSON, Felix Ayala-Fierro, Karshak Kosaraju and Ashley Turner; ITG Brands, Greensboro, NC, USA
- 56. ESTIMATION OF CORROSION OF METAL WIRES IN E-LIQUIDS.** E. Kate THORN and Mark J. Rusyniak; Altria Client Services, LLC, Richmond, VA USA
- 57. NICOTINE UPTAKE IN NAÏVE, SHORT-TERM AND EXPERIENCED ENDS USERS COMPARED TO NICOTINE UPTAKE IN SMOKERS.** Jason (KS) HONG, Bobbette Jones, Sarah Baxter-Wright, Tao Jin, and Leanne Campbell; RAI Services Company, Winston-Salem, NC, USA
- 58. REAL-TIME AUTHENTICATION OF FOOD, BEVERAGES AND BOTANICALS USING DART-QDA LIVEID ANALYSIS.** Emily BRITTON¹, Kari Organtini¹, Naren Meruva¹, and Sara Stead²; Waters Corporation, ¹Milford MA USA, ²Wilmslow UK
- 59. ANALYSIS OF CASCADE IMPACTOR SIZE DISTRIBUTION FOR ELECTRONIC NICOTINE DELIVERY SYSTEM AEROSOLS.** CHEN Song; RAI Innovations Company, Winston-Salem, NC USA
- 60. COMPARTMENTAL ANALYSIS OF INORGANIC AND ORGANIC CONSTITUENTS AND THE DITHIOTHREITOL-MEASURED OXIDATIVE POTENTIAL OF WATERPIPE TOBACCO SMOKE.** Cindy DeForest HAUSER, Parker Conquest, Andrew Jensen, Anna Merritt, Olivia Pelaez, Coco Peng, Nick Pohl, Emma Tayloe, Steffaney Wood and Karen Bernd; Davidson College, Davidson, NC USA
- 61. EVALUATION OF TOTAL PARTICULATE MATTER AND WHOLE AEROSOL FROM COMBUSTIBLE AND NEXT GENERATION TOBACCO PRODUCTS (NGPS) IN IN VITRO LUNG MODELS.** Wanda FIELDS, Brian Keyser and Betsy Bombick; RAI Services Company, Winston-Salem, NC USA



62. INNOVATIVE FILTER DESIGN FOR TOBACCO HEATED PRODUCTS (THPs). Amanda PERIMAN, Ann Treadaway, Brent Dillie, Elizabeth Gerringer, and Graeme Bolton; Essentra Filter Products, Greensboro, NC, USA

63. OBSERVATION OF WICKING BEHAVIOR OF AN ENDS DEVICE USING WEIGHT-TIME MEASUREMENTS. Sean P. PLATT, E. Kate Thorn; Robert B. Ragland; and Mark J. Rusyniak; Altria Client Services LLC, Richmond, VA, USA

64. NON-TARGETED ANALYSIS USING GAS CHROMATOGRAPHY MASS SPECTROMETRY TO EVALUATE STABILITY OF E-VAPOR PRODUCTS. Mark CROSSWHITE, Niti Shah, Mike Noe, Chris Suarez, John H. Miller IV, Yezdi B. Pithawalla and William P. Gardner; Altria Client Services, Richmond, VA, USA

65. RISK PERCEPTION OF E-VAPOR AND THE IMPACT OF PROMOTIONAL MATERIALS. Jessica Parker ZDINAK, Maria Gogova, Jenna Leighty and Stephanie Plunkett; Altria Client Services, LLC, Richmond, VA, USA

66. DISTINCT GENE EXPRESSION CHANGES IN PERIPHERAL BLOOD MONONUCLEAR CELLS EXPOSED TO COMBUSTIBLE VERSUS NON-COMBUSTIBLE TOBACCO PRODUCT PREPARATIONS. Nhu Quynh TRAN¹, Subhashini Arimilli², Behrouz Madahian³, Ramin Homayouni³ and GL Prasad¹; ¹RAI Services, Winston-Salem, NC USA, ²Wake Forest University, Winston Salem, NC, USA ³Quire Inc., Memphis, TN, USA

Monday Afternoon, September 17, 2018

Session A

2018 FDA-ANPRM Special Session

Session Chair: Summer Hanna

2:20 PM

67. A SCIENCE AND EVIDENCE BASED NICOTINE TOBACCO PRODUCT STANDARD. Willie J. MCKINNEY, Amy Brannan and Donna Smith; Altria Client Services, Richmond, VA USA

2:40 PM

68. TOBACCO INDUSTRY EFFORTS TO REDUCE NICOTINE. Lionel DELOACH; Altria Client Services, Richmond, VA USA

3:00 PM

69. POTENTIAL ADVERSE EFFECTS OF ANPRM'S ON SMALL TOBACCO PRODUCT MANUFACTURERS. John H. LAUTERBACH; Lauterbach & Associates, LLC, Macon, GA USA

Session B

Toxicology/Human Smoking

Session Chair: Candice K. Cunningham

2:20 PM

74. URINARY LEUKOTRIENE E4 AND 2,3-DINOR THROMBOXANE B2 ARE POTENTIAL BIOMARKERS OF EFFECT FOR TOBACCO PRODUCT EVALUATIONS. Patrudu MAKENA, Gang Liu, Nasrin Nouri, Peter Chen, and G.L. Prasad; RAI Services Company, Winston-Salem, NC USA

2:40 PM

75. TOBACCO PRODUCTS – A CYTOTOXICITY AND GENETIC TOXICOLOGY TESTING PARADIGM. Shannon BRUCE, Emily Dakoulas, Aparajita Dutta, Kamala Pant Shambhu Roy and Megan Young; MilliporeSigma, Rockville, MD USA

3:00 PM

76. DO LEVELS OF MENTHOL IN MAINSTREAM CIGARETTE SMOKE INFLUENCE DEPENDENCE? DATA FROM NHANES 2007-2014. Tiffany PARMS¹, Cynthia Van Landingham², and Kristin M Marano¹; ¹RAI Services Company, Winston-Salem, NC, USA, ²Ramboll, Monroe, LA, USA

3:20 Break



3:50 PM

70. PRODUCTION OF VERY LOW NICOTINE BURLEY TOBACCO: SHORT TERM FEASIBILITY FROM AN AGRONOMY VIEWPOINT. Anne JACK and Colin Fisher; University of Kentucky, Lexington, KY USA

4:10 PM

71. AGRICULTURAL PRACTICES AND ENVIRONMENTAL FACTORS THAT AFFECT ALKALOID ACCUMULATION IN TOBACCO. Marvin G. RIDDICK; R. J. Reynolds Tobacco Company, Winston-Salem, NC USA

4:30 PM

72. FDA ADVANCE NOTICE OF PROPOSED RULEMAKING FOR NICOTINE LEVEL OF COMBUSTED CIGARETTES – FEASIBILITY FOR COMPLIANCE VIA TOBACCO PLANT GENETICS? Ernie HIATT; R. J. Reynolds Tobacco Company, Winston-Salem, NC USA

4:50 PM

73. MODIFICATION OF STANDARDIZED METHODS FOR THE MEASUREMENT OF NICOTINE IN VERY LOW NICOTINE CONTENT CIGARETTES. Anthony P. BROWN¹, Matt S. Melvin¹, Yezdi B. Pithawalla¹, Jennifer H. Smith¹, Karl A. Wagner¹, Hui Liu², Kiana Mason², Jay Pierotti² and Kerry Stutt²; ¹Altria Client Services LLC, Richmond, VA USA ²Eurofins Lancaster Professional Scientific Staffing, Richmond, VA USA

3:50 PM

77. REDUCTION IN URINARY AND BLOOD BIOMARKERS OF TOBACCO EXPOSURE IN SMOKERS SWITCHED TO AN ELECTRONIC NICOTINE DELIVERY SYSTEM PRODUCT. Milly N. KANOBE, Bobbette A. Jones, Xiaoming Chen, Schmidt Eckhardt, John Darnell; RAI Services Company, Winston-Salem, NC, USA and Buddy G. Brown, Durham, NC, USA

4:10 PM

78. CHALLENGES IN THE ADMINISTRATION OF VISUAL ANALOG SCALES (VAS) DURING CLINICAL PHARMACOLOGY TRIALS OF ENDS PRODUCTS. Lorraine RUSCH, Melanie Fein and Mark Pearson; High Point Clinical Trials Center, High Point, NC USA

4:30 PM

79. SENSITIVITY ANALYSIS OF EXPOSURE PARAMETERS IN QUANTITATIVE RISK ASSESSMENT FOR SUBSTANTIAL EQUIVALENCE EVALUATION. Tiffany PARMS, Charlene Liu and Kristin Marano, RAI Services Company, Winston-Salem, NC USA

4:50 PM

80. DIFFERENTIAL GENE EXPRESSION AND FUNCTIONAL RESPONSES IN PERIPHERAL BLOOD MONONUCLEAR CELLS PRETREATED WITH COMBUSTIBLE AND NON-COMBUSTIBLE TOBACCO PRODUCTS. Quynh T. TRAN¹, Subhashini Arimilli², Gang Liu¹, Patrudu Makena¹ and GL Prasad¹; ¹RAI Services Company, Winston-Salem, NC USA, ²Wake Forest School of Medicine, Winston-Salem, NC USA

Adjourn

Tuesday Morning, September 18, 2018

Session A eCigarettes

Session Chair: Jason Flora

8:30 AM

81. DETERMINATION OF THE LEVELS OF SHORT CHAIN ORGANIC ACIDS IN TOBACCO AND LIQUIDS USED IN ELECTRONIC CIGARETTES. Serban MOLDOVEANU, Karen B. Kilby and Amanda G. Hudson, R.J. Reynolds Tobacco Co. Winston-Salem, N USA.

Session B

Manufacturing & Smokeless Tobacco

Session Chair: Jeremi Johnson

8:30 AM

90. ARE ALL FSC BANDING AGENTS INERT? John H. LAUTERBACH; Lauterbach & Associates, LLC, Macon, GA USA



8:50 AM

82. PYROLYSIS OF GLYCERIN AT DIFFERENT TEMPERATURES AND HEATING RATES. Serban MOLDOVEANU and Ching-En Chou R.J. Reynolds Tobacco Co. Winston-Salem, NC USA

9:10 AM

83. ONE MORE TIME: UNPROTONATED NICOTINE IN E-CIGARETTE AEROSOLS: IS IT REALLY THERE. John H. LAUTERBACH; Lauterbach & Associates, LLC, Macon, GA USA

9:30 AM

84. EVALUATION OF THE FORMALDEHYDE HEMIACETALS AND ACETALS RELEVANT TO ELECTRONIC CIGARETTES. Xiaohong Cathy JIN, Karen C. Avery, Regina M. Ballentine, William P. Gardner, Willie J. McKinney, Matt S. Melvin, Yezdi B. Pithawalla, Donna C. Smith, and Karl A. Wagner; Altria Client Services LLC, Richmond, VA USA

9:50 AM

85. SURVEY OF CARBONYLS IN AEROSOLS FROM ELECTRONIC NICOTINE DELIVERY SYSTEMS. Courtney G. CULBERT¹ and Randy A. Weidman²; ¹RAI Services Company, ²R.J. Reynolds Tobacco Company, Winston-Salem, NC, USA

10:40 AM

86. CHARACTERIZATION OF A TEMPERATURE REGULATED E-CIGARETTE FOR POTENTIAL USE AS A REFERENCE DEVICE. Alexander PENNINGTON and I Gene Gillman; Enthalpy Analytical, Durham, NC USA

11:00 AM

87. STRUCTURE-ACTIVITY RELATIONSHIPS OF PROPYLENE GLYCOL, GLYCERIN, AND SELECT ANALOGS FOR CARBONYL THERMAL DEGRADATION PRODUCTS. Matt S. MELVIN, Regina M. Ballentine, William P. Gardner, Willie J. McKinney, Yezdi B. Pithawalla, Donna C. Smith and Karl A. Wagner, Altria Client Services LLC, Richmond, VA USA

8:50 AM

91. FUNCTIONAL FILTER WRAPPING MATERIALS AND THEIR IMPACTS ON SPECIFIC PROPERTIES OF FACTORY MADE CIGARETTES AND HEATED TOBACCO PRODUCTS. Michael LINDNER; TANNPAPIER GmbH, Traun, Austria

9:10 AM

92. A STUDY ON THE TRANSFER OF CIGARETTE PAPER INGREDIENTS INTO MAINSTREAM SMOKE. Joseph WANNA¹, Cai Chen², Xiaoping Wang³ and Cuicui Xiao³; ¹SWM, Alpharetta, GA USA, ²SWM Shanghai Representative Office, Shanghai, China.; ³China Tobacco Mauduit, Jiangmen, Guangdong, China

9:30 AM

93. THE IMPACT OF WATERPIPE CONFIGURATION AND SMOKING REGIME ON THE CONCENTRATION AND SIZE DISTRIBUTION OF WATERPIPE TOBACCO SMOKE. Cindy DeForest HAUSER, Dylan Carmack, Ronnae Mailig, Tiffany Onia and Karen Bernd; Davidson College, Davidson, NC USA

9:50 AM

94. ARE AVAILABLE TEST METHODS FOR THE DETERMINATION OF AMMONIA IN MAINSTREAM CIGARETTE SMOKE FIT FOR THE ANALYSIS OF CIGARS? – PART 2. Yevgeniya PREPELITSKAYA, John Miller, Mark Rusyniak, Franklin Higgins, Karen Avery, Mark Crosswhite, Sandy Spicer-Glave and Niti Shah; Altria Client Services, Richmond, VA USA

Break

10:40 AM

95. CHARACTERIZATION OF MICROBIAL COMMUNITIES ASSOCIATED WITH THREE SMOKELESS TOBACCO REFERENCE PRODUCTS AND CORRELATION WITH CHEMICAL CHARACTERISTICS. Luke MOE, Isaac Greenhut and Huihua Ji; University of Kentucky, Lexington, KY, USA

11:00 AM

96. COMPARISON OF SEQUENCING PLATFORMS FOR MICROBIAL PROFILING IN SMOKELESS TOBACCO. Simon LI, Anthony Gerardi and Joya Brown; R. J. Reynolds Tobacco Company, Winston-Salem, NC USA



11:20 AM

88. THE RELATIONSHIP BETWEEN WATER CONTENT AND RELATIVE HUMIDITY FOR E-LIQUIDS. F. Kelley ST.CHARLES; St.Charles Consultancy, Lewisville, NC USA

11:40 AM

89. WITHDRAWN

11:20 AM

97. STABILITY OF CERTIFIED SMOKELESS TOBACCO REFERENCE PRODUCTS. Siqi GUAN, Huihua Ji and Lowell Bush; University of Kentucky, Lexington, KY USA

11:40 AM

98. CTP SUBMISSIONS – TIPS AND INSIGHT FOR PREPARING AN ELECTRONIC SUBMISSION. Deborah SHOLTES¹, Jeffrey K. Smith¹ and Glenn Angermeier²; ¹Food & Drug Administration, Silver Spring, MD USA ²WiseDesign, McLean, VA USA

Lunch

1:00 PM – Poster Session – See Poster Numbers 5-66 on Monday afternoon

1:00 PM – 99. MACHINE MADE CIGAR LEAF AND PRODUCT WORKSHOP. Rob Stevens¹, Roger Black¹, Gene Gillman², Jennifer Smith³, Michael Hartley⁴ and Thomas Lindegaard⁵; ¹ITG Brands, Greensboro, NC USA, ²Enthalpy Labs, Durham, NC USA, ³Altria Client Services LLC, Richmond, VA USA, ⁴Universal Dark Air-Cured Group, and ⁵Scandinavian Tobacco Group, Soborg, Denmark

Tuesday Afternoon, September 18, 2018

Session A
eCigarettes

Session Chair: Karen Carter

Session B

Smokeless Tobacco

Session Chair: Tiffany Parmis

2:40 PM

100. COMPARISON OF HYDROPHILIC INTERACTION LIQUID CHROMATOGRAPHY AND REVERSED-PHASE SEPARATION IN UNTARGETED LC/MS ANALYSIS OF 3D CELL CULTURES EXPOSED TO CIGARETTE SMOKE AND AEROSOLS FROM A NOVEL TOBACCO VAPOR PRODUCT. Yuichiro TAKANAMI, Nobumasa Kitamura and Shigeaki Ito; Japan Tobacco Inc., Yokohama, Japan

3:00 PM

101. FTIR CHEMOMETRICS APPLIED TO E-LIQUIDS QUANTITATIVE ANALYSIS. Frank S. HIGGINS, E. Kate Thorn, and Mark J. Rusyniak; Altria Client Services LLC, Richmond, VA USA

2:40 PM

106. EVALUATION OF BENZO[A]PYRENE (BAP) TRANSFER FROM MOIST SNUFF TO ARTIFICIAL SALIVA. Serban MOLDOVEANU, Jerry Marshall, F. Kelley St. Charles and Thomas Poole; R.J. Reynolds Tobacco Co. Winston-Salem, NC USA

3:00 PM

107. METHOD COMPARISONS FOR PARTICLE SIZE DISTRIBUTION AND NICOTINE DISSOLUTION PROFILES IN SMOKELESS TOBACCO PRODUCTS. Candice K. CUNNINGHAM¹, Summer N. Hanna¹, Christopher L. Keller¹ and Thomas R. Meadows²; ¹RAI Services Company, ²R. J. Reynolds Tobacco Company, Winston-Salem, NC, USA



3:20 PM

102. ADAPTATIONS OF MAINSTREAM CIGARETTE SMOKE METHODS TO OTHER PRODUCT CATEGORIES. Peter JOZA, William Rickert, Mingliang Bao and Mehran Sharifi; Labstat International ULC, Kitchener, OH Canada

4:10 PM

103. COMPARISON OF POTENTIAL HEALTH RISKS OF COMBUSTIBLE, HEAT-NOT-BURN, AND ELECTRONIC CIGARETTES. Charlene LIU and Kristin Marano; RAI Services Company, Winston-Salem, NC, USA

4:30 PM

104. TEMPORAL VARIABILITY OF ANALYTICAL TESTING FOR E-VAPOR PRODUCTS AND IMPACT ON NUMBER OF REPLICATES. Michael J. MORTON, William P. Gardner, Kimberly A. Agnew-Heard and John H. Miller IV; Altria Client Services, Richmond, VA USA

4:50 PM

105. E-VAPOR PRODUCT APPEAL AMONG TOBACCO USERS AND NON-USERS AND THE ROLE OF FLAVORS IN TOBACCO HARM REDUCTION. Jessica Parker ZDINAK, Andrea Vansickel, Maria Gogova and Stephanie Plunkett; Altria Client Services, LLC, Richmond, VA, USA

3:20 PM

108. TOXICITY VALUE SELECTION FOR QUANTITATIVE RISK ASSESSMENT OF HARMFUL AND POTENTIALLY HARMFUL CONSTITUENTS IN SMOKELESS TOBACCO PRODUCTS. Adams AMANTANA, Satin G. Sawant, Wei Xie, Shuang Liu, Kristin Marano and David T. Szabo; RAI Services Company, Winston-Salem, NC, USA

Break

4:10 PM

109. AN IMPROVED METHOD FOR THE DETERMINATION OF SODIUM PROPIONATE IN TOBACCO PRODUCTS. Fraser WILLIAMSON and Jessica Bailey; Global Laboratory Services, Wilson, NC USA

4:30 PM

110. RAPID MEASUREMENT OF PHYTOCHEMICALS IN TOBACCO LEAVES USING FLUORESCENCE FINGERPRINT ANALYSIS. Hiroataka NAITO¹, Mizuki Tsuta², and Takumi Koike¹; ¹Japan Tobacco Inc., ²National Agriculture and Food Research Organization/ Food Research Institute, Yokohama, Japan

4:50 PM

111. CHARACTERIZATION AND CERTIFICATION OF SMOKELESS TOBACCO REFERENCE PRODUCTS. Stacey SLONE, Socrates Canete, Huihua Ji, Anne Jack, Lowell Bush, Orlando Chambers and Brent Shelton; University of Kentucky, Lexington, KY, USA

Adjourn

5:15 PM – TSRC Business Meeting – All attendees are encouraged to attend.

6:30 PM – Pre-banquet Reception



Wednesday Morning, September 19, 2018

Combined Session
Regulation & Agronomy
Session Chair: Anne Jack

8:30 AM

112. DEVELOPMENT AND VERIFICATION OF A BLACK SHANK RACE 0 QPCR ASSAY DERIVED FROM RAPD MARKER ASSAY. Michael F. LESNIAK¹ and David Shew²; ¹R. J. Reynolds Tobacco Company, Winston-Salem, NC USA, ²North Carolina State University, Raleigh, NC USA

8:50 AM

113. INFLUENCE OF MALEIC HYDRAZIDE ON TRANSCRIPTOME LANDSCAPE OF CHEMICALLY TOPPED BURLEY TOBACCO. Sitakanta PATTANAIK, Sanjay Kumar Singh, Mitchell Richmond, Bob Pearce, Andy Bailey and Ling Yuan; University of Kentucky, Lexington, KY USA

9:10 AM

114. EFFECT OF LIGHT IRRADIATION ON METABOLITE DYNAMICS IN TOBACCO LEAVES DURING CURING. Takumi KOIKE and Atsushi Nagai; Japan Tobacco Inc, Yokohama, Japan

9:30 AM

115. KEY FACTORS IN ENZYME DEACTIVATION DURING PRESERVATION UNDER LOW-MOISTURE CONDITIONS. Kei KOBAYASHI¹ and Yutaka Kuroda²; ¹Japan Tobacco Inc., Yokohama, Japan, ²Tokyo University of Agriculture and Technology, Tokyo, Japan

NOTE: Presentations 116 – 118 have been Withdrawn

Adjourn