



ASChmS XL

April 16-20, 2018
Hyatt Regency
Coconut Point
Bonita Springs, FL

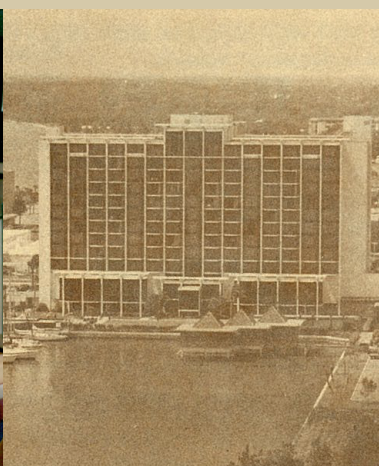
Celebrating 40 Years of the AChemS Annual Meeting



Aided by a planning grant from the National Science Foundation, Dr. Maxwell M. Mozell (SUNY Health Sciences Center, Syracuse) and a group of ten colleagues nominated at the Gordon Conference on Chemical Senses, 1978, initiated formation of the Association and planned its first meeting. The initial Steering Committee included M.M. Mozell, Chair, G. Beauchamp, R.H. Cagan, W. Cain, M. Frank, R. Gesteland, B.P. Halpern, F. Margolis, D. Mathews, C. Mistretta, D.V. Smith. The first meeting was held in Sarasota, Florida at the Hyatt hotel in April, 1979 and every year thereafter until 2010 when the meeting was moved to a larger venue to accommodate a higher volume of meeting attendees and poster presentations. The first officers for the AChemS association structure were elected in 1979. AChemS has grown to become the professional society for olfaction and taste research in the United States. The annual meeting has evolved into the nation's major forum for presenting advances in chemical senses research. A history of the formation of AChemS is in 'AChemS: The Beginning', M.M. Mozell, Chemical Senses 23, 1998.



Maxwell Mozell, PhD



Hyatt House Sarasota



GENERAL INFORMATION

CONFERENCE VENUE

Hyatt Regency Coconut Point
Bonita Springs, Florida

REGISTRATION INFORMATION

The Registration Desk is located in the Calusa Foyer and will be open during the following hours:

Monday, April 16	12:00 pm - 7:00 pm
Tuesday, April 17	7:00 am - 6:30 pm
Wednesday, April 18	7:00 am - 9:00 pm
Thursday, April 19	7:00 am - 9:00 pm
Friday, April 20	7:00 am - 9:00 pm

WIFI ACCESS

Network Name: @Hyatt_Meeting
Password: AChemS2018

ONLINE/MOBILE CONFERENCE PROGRAM

AChemS attendees may access the online conference program in multiple formats at <http://program.achems.org>.

Web-Based App

<http://mobile.achems.org>

iOS/Android App

STEP 1: Download the MA eEvent App from the iOS App Store or Google Play.

STEP 2: Use the "scan event QR code" feature and scan the QR code listed to the right OR enter **achems2018** for the username and password.



CERTIFICATE OF ATTENDANCE

Please visit the Registration Desk to receive a certificate of attendance. If you require any changes, we will be happy to email/mail a custom certificate after the meeting.

LOST AND FOUND

All lost and found articles will be held at the conference Registration Desk.

MOBILE PHONES

As a courtesy to others, please switch off mobile telephones during all sessions.

DUPLICATION/RECORDING

Photography, audio taping, video recording, digital taping, or any other form of duplication is strictly prohibited in the sessions and poster areas.

SESSION CHAIRS

Please arrive at the meeting room 15 minutes prior to the start of your session to allow time for setup and to check-in with your speakers.

SPEAKER READY ROOM

The speaker ready area will be available to all oral presenters to both preview and edit your presentations if necessary. The speaker ready area is located in the Great Egret Room located near the registration desk.

INSTRUCTIONS TO SYMPOSIA PRESENTERS

All speakers are required to check into the Speaker Ready Room. It is preferable that this is done at least 24 hours before the start of your session to ensure compatibility with the computers being used at the conference, as laptops cannot be used in the meeting rooms. Speakers should arrive at least 15 minutes prior to their session to introduce themselves to the session chair.

INSTRUCTIONS TO POSTER PRESENTERS

All posters should be mounted on the assigned board by 7:30 AM on the assigned day and should be taken down by 11:00 PM (your poster will be up all day).

Authors assigned to a morning poster session are asked to stand by their posters from 8:00 - 10:30 AM, whereas authors assigned to an evening poster session are asked to stand by their posters from 9:00 - 11:00 PM.

INSTRUCTIONS TO DIGITAL POSTER PRESENTERS

Digital Poster Presenters will be able to test their posters at any time in Estero during non-poster sessions.

Please upload your presentation via USB directly into the digital kiosk at the time of your scheduled poster presentation.

MEETING PROGRAM

MONDAY, APRIL 16

SATELLITE SYMPOSIUM

1:50 - 4:20 PM

Calusa ABC

Chair: Claire Cheetham

- 1:50 **Welcome & Introduction.** *Max Fletcher and Daniel Wesson*
- 2:00 **Inhibition and Modulatory Circuitry in the Nucleus of the Solitary Tract.** *Susan Travers*
- 2:20 **Synaptic Organization of Local Circuits that Determine Input/Output Relationships in the Olfactory Bulb.** *Ben W. Strowbridge*
- 2:40 **Links Between Somatosensory and Taste Processing in Mouse Brain.** *Christian Lemon*
- 3:00 **Organization and Plasticity of Olfactory Memory Circuits in Zebrafish.** *Rainer W. Friedrich*
- 3:20 **Heterogeneity of Neuron Types in the Nucleus of the Solitary Tract Suggests Fluidity in the Neural Code for Taste.** *Patricia M. Di Lorenzo*
- 3:40 **State-Dependent Balance in Piriform Cortical Inputs and Outputs.** *Donald A. Wilson*
- 4:00 **Sweet Taste and the Human Gut-Brain Axis.** *Dana M. Small*

COFFEE BREAK

4:20 - 4:40 PM

Calusa Foyer

SATELLITE SYMPOSIUM

4:40 - 7:00 PM

Calusa ABC

Chair: Lindsey Schier

- 4:40 **Modelling Prodromal Parkinson's Disease by Triggering Alpha-Synuclein Pathology in the Olfactory Bulb.** *Patrik Brundin*
- 5:00 **Oxytocin in Cortical Control of Olfactory Perception.** *Wolfgang Kelsch*
- 5:20 **Cortical and Subcortical Processing of Gustatory and Cognitive Signals.** *Alfredo Fontanini*
- 5:40 **Mapping Excitation and Inhibition in the Olfactory Bulb.** *Matt Wachowiak*
- 6:00 **Modulation of Piriform Cortex Encoding and Connectivity by Sleep Deprivation.** *Thorsten Kahnt*
- 6:20 **The Role of Dopamine in Taste Recognition Memory. Implications for Alzheimer's Disease.** *Federico Bermudez-Rattoni*
- 6:40 **Mechanosensory-Based Phase Coding of Odor Identity in the Olfactory Bulb.** *Takeshi Imai*

TUESDAY, APRIL 17

SATELLITE SYMPOSIUM

8:00 - 9:40 AM

Calusa ABC

Chair: Chad Sameulsen

- 8:00 **Diet and Gut Hormone Signaling Modulate Internal State and Olfactory Processing in the Mouse.** *Debra Fadool*
- 8:20 *Ivan De Araujo*
- 8:40 **Synaptic Modulation of Gustatory Sensory Neurons Underlies Integration of Tastes and Internal State in Drosophila.** *Michael Gordon*
- 9:00 **Navigating Space with Only the Luxury of Smell and a 6-Fold Compass.** *Jay A. Gottfried*
- 9:20 **The Integration of Perception and Action in Single-Trial Taste Cortical Activity.** *Donald B. Katz*

OUTREACH EVENT

9:00 AM - 1:00 PM

Offsite

COFFEE BREAK

9:40 - 10:00 AM

Calusa Foyer

SATELLITE SYMPOSIUM

10:00 AM - 11:40 AM

Calusa ABC

Chair: Joost Maier

- 10:00 **Olfactory Bulb and Piriform Cortex Gamma and Beta Oscillations Define a Cognitive Sequence During Odor Sampling.** *Leslie M. Kay*

- 10:20 **A Connectome of Central and Enteric Chemosensory Circuits in Drosophila.** *Michael Pankratz*

- 10:40 **Precision of Classification of Odorant Value by the Power of Olfactory Bulb Oscillations is Altered by Optogenetic Silencing of Local Adrenergic Innervation.** *Diego Restrepo*

- 11:00 **Behavioral Approaches to Discerning the Function of Gustatory Cortex in a Rat Model.** *Alan C. Spector*

- 11:20 **The Mushroom Body and Learning - Flexibly Assigning Valence to Odors.** *Glenn Turner*

WELCOME/AWARDS CEREMONY

5:00 - 6:00 PM

Calusa ABCD

GIVAUDAN LECTURE

6:00 - 7:00 PM

Calusa ABCD

- 6:00 **Brain Systems of Taste 'Liking' & 'Wanting': Roles in Addiction.** *Kent Berridge*

WELCOME BANQUET (TICKET REQUIRED)

7:00 - 9:00 PM

Pool Deck

GRADUATE STUDENT HAPPY HOUR

9:00 - 11:00 PM

Mangroves Patio

MEETING PROGRAM

WEDNESDAY, APRIL 18

BREAKFAST CORNERS WITH INDUSTRY

7:30 - 9:00 AM Estero Foyer

POSTER SESSION I

8:00 - 10:30 AM Estero Ballroom

COFFEE BREAK

9:00 - 10:30 AM Estero Foyer

BARIATRIC SURGERY AND ITS EFFECTS ON TASTE AND FOOD SELECTION

10:30 AM - 12:30 PM Calusa ABC

Chairs: Alan Spector and Carel le Roux

- 10:30 **The Prevailing Views on Bariatric Surgery Regarding the Effects on Taste and Food Selection.** *Carel le Roux*
- 10:40 **The Effects of Roux-en-Y Gastric Bypass on Food Selection and Taste-Related Motivation.** *Alan Spector*
- 11:10 **Free-living vs Laboratory Assessment of Food Selection and Intake in Pariatric patients.** *Barbara Livingstone*
- 11:40 **Direct Measurement of Macronutrient Intake 12 Months After Roux-en-Y Gastric Bypass (RYGB).** *Natasha Kapoor*
- 12:00 **Effects of Bariatric Surgery on Ingestive Behavior and Sweet Taste Perception in Subjects with Obesity.** *M. Yanina Pepino*

INHIBITORY NEURONAL CONTRIBUTIONS TO CHEMOSENSORY PROCESSING

10:30 AM - 12:30 PM Calusa FGH

Chair: Julian Meeks

- 10:30 **Introduction**
- 10:40 **Olfactory Bulb Granule Cells Gate Oscillatory Transitions During Odor Sampling.** *Leslie Kay*
- 11:10 **A Population of Projection Neurons that Inhibits the Lateral Horn but Excites the Antennal Lobe in Drosophila.** *Kazumichi Shimizu*
- 11:30 **Chemosensory Processing Roles of Accessory Olfactory Bulb Interneurons.** *Julian Meeks*
- 12:00 **Formation of Interneuron Sensory Maps in the Mouse Olfactory Bulb.** *Benjamin Arenkiel*

LUNCH BREAK

12:30 - 1:30 PM

CHEMICAL SENSES EDITORIAL BOARD MEETING

12:30 - 1:30 PM Blue Heron

TRAVEL FELLOWSHIPS FOR DIVERSITY AWARD LUNCHEON

12:30 - 1:30 PM Cove at Tarpon Bay

INDUSTRY SYMPOSIUM: TEXTURE AND ORAL PROCESSING: FROM BASIC MECHANISMS TO PRACTICAL APPLICATIONS

1:30 - 3:30 PM Calusa ABC

Chair: Beverly Tepper

- 1:30 **Introduction.** *Beverly Tepper*
- 1:35 **Modulation of Feeding Behavior and Neural Activity with Variation in Food Material Properties in Nonhuman Primates.** *Callum Ross*
- 2:00 **Oral Tactile Sensitivity and Its Role in Texture Perception.** *Christopher T. Simons*
- 2:25 **Exploring the Molecular and Neural Mechanisms Underlying Food Texture Sensation.** *Yali Zhang*
- 2:40 **The Role of Oral Processing in Food Texture, Flavour Perception and Consumer Preference.** *Marco Morgenstern*
- 3:05 **Texture, Oral Processing and Satiation.** *Paul Smeets*

COFFEE BREAK

3:15 - 3:45 PM Calusa Foyer

THE BARRY DAVIS WORKSHOP: FUNDING OPPORTUNITIES FOR THE NEW INVESTIGATOR

3:30 - 5:30 PM Calusa ABC

POLAK AWARD PRESENTATIONS

7:00 - 9:00 PM Calusa ABC

Chair: Nirupa Chaudhari

- 7:00 **Functional Organization of the Islands of Calleja in the Olfactory Tubercle.** *Yun-Feng Zhang*
- 7:20 **Neural Activity of Goal-Directed Decision Making in the Gustatory Cortex.** *Roberto Vincis*
- 7:40 **Olfactory Bulb Granule Cells Date of Birth biases their Synaptic Connectivity with Mitral and Tufted Cells.** *Marta Pallotto*
- 8:00 **Sleep-Deprivation Enhances Encoding of Food Odors in Piriform Cortex and Promotes Food Intake Through Piriform-Insula Connectivity.** *Thorsten Kahnt*
- 8:20 **Structure Of Feedback Projections From The Entire Mouse Brain To The Main Olfactory Bulb And The Impact On Activity In The Bulb As A Function Of Animal Behavioral State.** *Krishnan Padmanabhan*
- 8:40 **Conditioned Taste Aversion Learning Drives Plasticity of Gustatory Cortical Circuits and Amygdalo-Cortical Projections in L2/3 of Rat Gustatory Cortex.** *Melissa Haley*

POSTER SESSION II

9:00 - 11:00 PM Estero Ballroom

MEETING PROGRAM

THURSDAY, APRIL 19

ACHEMS UNDERGRADUATE PRESENTERS PANEL

7:30 - 8:15 AM

Pine

CONTINENTAL BREAKFAST

7:30 - 9:00 AM

Estero Foyer

POSTER SESSION III

8:00 - 10:30 AM

Estero Ballroom

COFFEE BREAK

9:00 - 10:30 AM

Estero Foyer

TOWARD UNDERSTANDING THE MOUTH AS A MULTISENSORY SYSTEM

10:30 AM - 12:30 PM

Calusa ABC

Chairs: Robin Krimm and Christian Lemon

10:30 **Toward Understanding the Mouth as a Multisensory System.** *Robin Krimm*

10:40 **The Molecular and Cellular Basis of Thermosensation.** *David McKemy*

11:10 **Mechanosensory Coding in the Oral Cavity.** *Yalda Moayed*

11:30 **Overlap of Taste and Somatosensory Processing in the Mouse Brain Stem.** *Christian Lemon*

12:00 **Somatosensory Factors in Human Taste.** *Barry Green*

FUNCTIONS OF HUMAN OLFACTION: FRONTIERS AND CHALLENGES

10:30 AM - 12:30 PM

Calusa FGH

Chair: Veronika Schopf

10:30 **Introduction**

10:40 **Eating with the Nose?** *Sanne Boesveldt*

11:10 **Influence of Social Odor Context on Cognitive Processes.** *Cinzia Cecchetto*

11:30 **Communicating (or not) via Chemosignals? The Case of Autism.** *Valentina Parma*

12:00 **Chemosensory Cues of Environmental Hazards.** *Pamela Dalton*

LUNCH BREAK

12:30 - 1:00 PM

ACHEMS BUSINESS MEETING

1:00 - 2:00 PM

Calusa ABC

COFFEE BREAK

1:45 - 2:15 PM

Calusa Foyer

CLINICAL SYMPOSIUM: TRAUMATIC BRAIN INJURY AND SIDE-EFFECTS IN VETERANS: IMPLICATIONS FOR CHEMOSENSORY RESEARCH

2:00 - 4:00 PM

Calusa ABC

Chair: Valerie Duffy and Sanne Boesveldt

2:00 **PTSD and TBI in OIF/OEF/OND Veterans: What's Smell Got To Do With It?** *Janine D Flory*

3:00 **Mild Myelin Disruption Elicits Early Alteration in Olfactory Behavior and Proliferation in the Subventricular Zone.** *Diego Restrepo*

3:20 **Olfactory Dysfunction as a Consequence of Traumatic Brain Injury.** *Johannes Frasnelli*

3:40 **The Smell of War: Olfaction and Posttraumatic Stress Disorder.** *Deborah Beidel*

NEW CAREER DIRECTIONS IN NEUROSCIENCE: SCIENCE WRITING AND CITIZEN SCIENCE

4:00 - 5:00 PM

Calusa ABC

4:00 **Scientists are People Too: Breaking Barriers Through Communication.** *Maryam Zaringhalam*

4:30 **Citizen Scientists & Chemoreception: From Contributing to Co-Creation.** *Nicole Garneau*

CAREER/NETWORKING SOCIAL

5:00 - 6:00 PM

Calusa Foyer

PRESIDENTIAL SYMPOSIUM: BACK TO THE FUTURE: FROM PAST DISCOVERIES TO FUTURE DIRECTIONS

7:00 - 9:00 PM

Calusa ABC

Chair: Thomas Finger

7:00 **Back To The Future: From Past Discoveries To Future Directions.** *Thomas E. Finger*

7:10 **ACheMS and Olfaction: A Share in Two Revolutions is Living to Some Purpose.** *Gordon Shepherd*

7:40 **Behavioral Analysis of Taste: Insights from Patients with Taste Disorders.** *Linda Bartoshuk*

8:10 **Keeping the Olfactory Pipeline Flowing, or at Least Dripping.** *Stuart Firestein*

8:40 **The Nose as a Window to the Mind.** *Ann-Sophie Barwich*

Sponsored By: Coca-Cola

POSTER SESSION IV

9:00 - 11:00 PM

Estero Ballroom

MEETING PROGRAM

FRIDAY, APRIL 20

CONTINENTAL BREAKFAST

7:30 - 9:00 AM Estero Foyer

POSTER SESSION V

8:00 - 10:30 AM Estero Ballroom

COFFEE BREAK

9:00 - 10:30 AM Estero Foyer

EVOLUTIONARY ASPECTS OF CHEMICAL SIGNALING IN MICE

10:30 AM - 12:30 PM Calusa ABC

Chairs: Yoram Ben-Shaul and Marc Spehr

- 10:30 **Introduction**
- 10:40 **Diversity of Major Urinary Proteins in Wild House Mice.** *Michael Sheehan*
- 11:10 **Neuronal Responses to Wild and to Inbred Urine Signals.** *Rohini Bansal*
- 11:30 **Evolution of the Olfactory Genome and its Consequences for the Social Behavior of Wild Mice.** *Jean-Marc Lassance*
- 12:00 **Urinary lipocalins as Chemical Signaling and Toxic Waste Disposal Systems and Their Differences Between Inbred and Wild Mice.** *Pavel Stopka*

ORAL CARBOHYDRATE SENSING: BEYOND SWEET TASTE

10:30 AM - 12:30 PM Calusa FGH

Chair: Juyun Lim

- 10:30 **Oral Carbohydrate Sensing: Beyond Sweet Taste.** *Juyun Lim*
- 10:40 **Functional Aspects of Carbohydrate Sensing in Humans.** *Nicholas Grant*
- 11:10 **Multiple Pathways Mediate Caloric Sugar Taste Signaling.** *Sunil Sukumaran*
- 11:30 **Oral Stimulation with Glucose Elicits Insulin Release by Activating a T1R-independent Taste Signaling Pathway.** *John Glendinning*
- 12:00 **Oral Complex Carbohydrate Sensing in Humans.** *Juyun Lim*

LUNCH BREAK

12:30 - 1:30 PM

PERIPHERAL MODIFICATION OF THE CHEMICAL SIGNAL

1:30 - 3:30 PM Calusa ABC

Chair: Ann-Marie Torregrossa

- 1:30 **Peripheral Modification Of The Chemical Signal.** *Ann-Marie Torregrossa*
- 1:40 **The Role of Oral Fluids and Films in the Sense of Taste.** *Martine Morzel*
- 2:10 **Salivary Proteins Decrease Orosensory Sensitivity to Quinine.** *Ann-Marie Torregrossa*
- 2:30 **Function of Nasal Odorant Metabolism in Mammalian Olfaction.** *Jean-Marie Heydel*
- 3:00 **Xenobiotic Metabolizing Enzymes and Olfaction in Insects.** *Martine Maibeche*

CHOLINERGIC MODULATION OF OLFACTORY FUNCTION IN HEALTH AND DISEASE

1:30 - 3:30 PM Calusa FGH

Chairs: Richard Doty and Donald Wilson

- 1:30 **Introduction**
- 1:40 **Functional Cholinergic Modulation of Olfactory Bulb and Cortex Processes.** *Christiane Linster*
- 2:10 **Biophysical Models of Cholinergic Neuromodulation in Olfactory Bulb.** *Guoshi Li*
- 2:30 **Cholinergic Modulation of Olfactory Cortical Connectivity and Odor Perception.** *Donald A. Wilson*
- 3:00 **Putative Involvement of Acetylcholine in Modulation of Olfactory Function Among a Wide Range of Neurological Disorders.** *Richard Doty*

COFFEE BREAK

3:15 - 3:45 PM Calusa Foyer

JOURNAL CLUB: FROM THE CHROMATOGRAPHIC THEORY TO ODOR PERCEPTION: SPATIOTEMPORAL PATTERNING IN OLFACTION

3:30 - 5:00 PM Blue Heron

AWARD LECTURES

7:00 - 9:00 PM Calusa ABC

Chair: Minghong Ma

- 7:00 **ACHems Young Investigator Award - Joel D. Mainland**
- 7:30 **Barry Jacobs Memorial Award - Sanne Boesveldt**
- 8:00 **Ajinomoto Award for Young Investigators - Yuki Oka**
- 8:30 **Max Mozell Award - John R. Carlson**

ACHEMS 40TH BIRTHDAY DANCE BASH

9:00 PM - 12:00 AM Mangroves & Belvedere Room



AChemS

Association for Chemoreception Sciences

**AChemS XLI
41ST ANNUAL MEETING**



**APRIL 13-16, 2019
HYATT REGENCY COCONUT POINT
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