

SESSION 1: VOCAL FOLD HISTOLOGY AND IMMUNOLOGY (*session chair - Susan Thibeault*)

7:00	<b>REGISTRATION/CHECK IN</b>	
7:50	Welcome / Introduction (Chair - Ingo Titze)	
<b>8:00</b>	<b>Mariah Hahn</b>	<b>KEYNOTE: Vocal fold regeneration and the biomaterial microenvironment</b>
8:30	Jennifer Long	Status of the tissue-engineered vocal fold cover
8:50	Vlasta Lungova	The ontogeny of the mouse vocal fold epithelium
9:10	Elizabeth Levendoski	Novel isolation and characterization of porcine vocal fold epithelial cells
9:30	Chet Xu	Humoral immune response to a bovine acellular scaffold in a rabbit model
9:50	Stephen Dürr	Vocal fold fibroblasts treated with super-paramagnetic iron oxide nanoparticles for magnetic tissue engineering
10:10	<b>BREAK</b>	
10:30	Rebecca Bartlett	Identification of biomechanically relevant cell therapeutics for vocal fold scar
10:50	Nicole Li	Flow cytometric immunophenotyping for surgically injured vocal folds

SESSION 2: VOCAL FOLD AND VOCAL TRACT MOTION ANALYSIS (*session chair - Ron Scherer*)

11:10	Maria E. Golla Powell	Comparison of vocal fold vibratory features visualized via videostroboscopy, high-speed videoendoscopy, and stroboscopic simulation derived from high-speed videoendoscopy
11:30	Louisa Traser	The effect of teeth on formant frequencies in different vowel conditions in 3- dimensional vocal tract models
11:50	Matthias Echternach	The effect of singer's fach and different loudness condition on vocal tract configurations during professional singing
12:10	Georg Luegmair	Three dimensional reconstruction of the vocal fold surface in high-speed imaging by laser grid projection
12:30	<b>LUNCH</b>	<i>Provided</i>
2:00	Michael Döllinger	Correlations between 3D dynamic parameters and acoustics in an <i>in vitro</i> set-up
2:20	Dong Liu	Imaging of Larynx with electrical impedance tomography

SESSION 3: NEUROMECHANICS AND MUSCULAR CONTROL OF VOICE PRODUCTION  
(*session chair - Tobias Riede / Franz Goller*)

<b>2:40</b>	<b>Daniel Margoliash</b>	<b>KEYNOTE: Neuroethology Perspectives in Vocal Learning</b>
3:10	Zhaoyan Zhang	Interaction between the thyroarytenoid and lateral cricoarytenoid muscles in the control of vocal fold adduction and eigenfrequencies
3:30	Juergen Neubauer	Comprehensive bifurcation analysis in a neuromuscularly-controlled <i>in vivo</i> canine larynx
3:50	<b>BREAK</b>	
4:10	Tobias Riede	Somatosensory feedback during vocal production in a non-human mammal
4:30	Abigail Durkes	Development of a porcine model to investigate the pathophysiology of laryngopharyngeal reflux disease
4:50	Simeon Smith	Sensitivity analysis of a viscoelastic laryngeal muscle model
5:10	Sanyukta Jaiswal	The role of vocal fold longitudinal tension in voicing transitions during speech
5:30	Dinesh Chhetri	Effects of asymmetric laryngeal activation on vibration, acoustics and posture
5:50	Franz Goller	"Sleepy songs": Variability, not stereotypy, characterizes night-time motor replay of birdsong
6:10	<b>End of Day 1</b>	

SESSION 1: FLOW-STRUCTURE INTERACTION AND ACOUSTICS I *(session chair - Scott Thomson)*

<b>8:00</b>	<b>Jaromír Horáček</b>	<b>KEYNOTE: Computational modeling of airway acoustics</b>
8:30	Pavel Svancara	Finite element modeling of human vocal folds self-oscillation
8:50	Ingo Titze	Bridging the gap between low dimensional and high dimensional models
9:10	Douglas Cook	Understanding our models more thoroughly: Sensitivity analysis applied to a two-mass model
9:30	Niyazi Cem Degirmenci	Flow-structure interaction in a human voice model: simulation and experiment
9:50	<b>BREAK</b>	
10:10	Qian Xue	Computational study of effects of tension imbalance on phonation in a three dimensional tubular larynx model
10:30	Lewis Fulcher	Phonation onset, phonation offset, and extension of the surface wave model
10:50	Xudong Zheng	Patient-specific numerical modeling of human phonation-A full continuum based flow-structure interaction study
11:10	Fariborz Alipour	Aerodynamic effects of ventricular gap in phonatory computational model
11:30	David E. Sommer	A coupled experimental-numerical facility for modeling the fluid-structure interactions of speech
11:50	<b>LUNCH</b> <i>Provided</i>	
1:00 –2:10	Poster session	All presenters stand at their posters and are available for questions

SESSION 2: FLOW-STRUCTURE INTERACTION AND ACOUSTICS II *(session chair - Fariborz Alipour)*

2:10	Lucas Pollok	Kinematic effects of a polyp-like structure on the medial surface of synthetic self-oscillating vocal fold models
2:30	Thierry Legou	Singing excised human larynges: Investigating aerodynamic and biomechanical control of phonation
2:50	Sid Khosla	Aerodynamic effects of arytenoid adduction with Type I Thyroplasty on the glottal flow
3:10	Frank S. Hemsing	Flow dynamics exiting a tracheoesophageal prosthesis
3:30	Jean Schoentgen	Solving the Riccati-Titze equation of the glottal airflow rate
3:50	Shelby Ward	Anterior-posterior cover layer thickness variation in synthetic vocal fold models
4:10	<b>BREAK</b>	
4:30	Ron Scherer	Entrance loss coefficients for the glottis
4:50	Ken-Ichi Sakakibara	Stereo-endoscopic high-speed imaging: its basics and application
5:10	Akihito Yamauchi	Qualitative and quantitative assessment of high-speed digital imaging with combined analysis method
5:30	Bahar Fata	Estimating the material properties of collagen and elastin in human vocal fold lamina propria
5:50	Luc Mongeau	Frequency-dependent viscoelastic properties of hyaluronic acid-gelatin hydrogels for vocal fold tissue engineering
<b>6:10</b>	<b>End of Day 2</b>	

SESSION 1: AUDITORY PROCESSING AND VOICE QUALITY (*session 1 & 2 chair - Brad Story*)

8:00	<b>Pascal Belin</b>	<b>KEYNOTE: Norm-based coding of voice identity in the human brain</b>
8:30	Jody Kreiman	The relationship of glottal area and glottal flow to voice quality
8:50	Jean Schoentgen	Is formant frequency jitter audible?

## SESSION 2: VOCAL TRACT ACOUSTICS

9:10	Vojtech Radolf	Comparison of computed and measured acoustic input impedance of the human vocal tract models
9:30	Willy Mattheus	Influence of local acoustic sources on the vocal tract transfer function
9:50	<b>BREAK</b>	
10:10	Petr Sidlof	Vowel spectra simulated using a 3D aeroacoustic model of phonation
10:30	Alexander Mainka	Morphologic analysis of vocal tract during classical singing vs. speech like phonation—a comparative study of 14 singing students
10:50	Marc Arnela	Validation of the piston set in a sphere model for vowel sound radiation losses against realistic head geometry using time-domain finite-element simulations
11:10	Brad Story	Interaction of voice source harmonics with vocal tract resonances in children's speech production
11:30	Andreas Selamtzis	Short-term spectral characteristics of the EGG signal in different registers
11:50	Liran Oren	Determination of sound sources in a vocal tract model using acoustic holography
12:10	Ingo Titze	Closing remarks
<b>12:20</b>	<b>End of Conference</b>	

## POSTER PRESENTATIONS

*Posters will be displayed throughout the conference as well as a dedicated time on Friday 1:00p -2:30p*

Yoichiro Sugiyama	Responses of respiratory neurons on the rostral ventrolateral medulla during vocalization in guinea pigs
John J. Sidtis	Cerebral blood flow patterns associated with F0 stability during sustained vowel production
Mary J. Sandage	Upper airway thermoregulation in smokers vs. non-smokers
Rita Patel	High-speed characterization of vibratory dynamics in children with vocal fold nodules
Christopher Bohr	Feasability of confocal laser endomicroscopy as optical biopsy for vocal folds
Christine Novaleski	High-resolution microimaging of rabbit larynx: toward the development of a three-dimensional model
Hideki Bando	The expressions of aquaporins in the vocal fold epithelium
Neda Latifi	Determination of the elastic properties of rabbit vocal fold tissue using the uniaxial tensile test and a tailored finite element
Adrienne B. Hancock	Evaluation of synthetic self-oscillating models of the vocal folds
Jorge C. Lucero	A vocal fold model for disordered voice synthesis
Liran Oren	Intraglottal velocity and pressure measurements in the hemilarynx
Liran Oren	The effect of vocal tract constriction on intraglottal flow dynamics and acoustic properties in a canine larynx
Matias Zanartu	Mimicking vocal hyperfunction using a numerical model of speech production with a posterior glottal opening
Daryush D. Mehta	Deriving acoustic voice quality measures from subglottal neck-surface acceleration
Veera Khare Asher	Pilates2Voice®: Demystifying the Voice-Core Connection through sport science strength and conditioning
Doug Dembinski	The effect of screen size and image contrast ration on glottal opening area measurements
Siyuan Chang	Computational modeling of vocal fold vibration based on realistic laryngeal geometry
Gang Chen	On transition between voice registers: Data from high-speed laryngeal videoendoscopy
Kimberly Stevens	Simultaneous imaging of the inferior and superior surfaces of vibrating vocal fold models