

Sunday, 14. September

08:15 – 08:20		Opening Anthony Gummer and Hubert Löwenheim
08:20 – 08:30		In Memoriam A. James Hudspeth Dáibhid Ó Maoiléidigh
		Session 1: Biophysics of the Cochlea – Stereocilia Chairpersons: K. Charaziak, J. Ashmore
08:30 – 09:00	O1	Target Lecture: Modelling the ear from the ground up: Physics, physiology, and pathology <i>*O. Ticháček</i>
09:00 – 09:15	O2	Identification of TMEM145 as a principal component of outer hair cell stereocilia <i>*D. Derstroff, M. Flook, A. Löhnes, S. Newton, V. Renigunta, S. Hanemaaijer, C. Aguilar, J. Holt, M. Bowl, D. Oliver, K. Reimann</i>
09:15 – 09:30	O3	PIP ₂ -Tmie interactions drive mammalian hair cell slow adaptation independently of myosin motors <i>G. Caprara, Y. R. Kim, S. Jun, S. Li, U. Kim, J. B. Shin, *A. Peng</i>
09:30 – 09:45	O4	Viscoelasticity explains fast adaptation in outer-hair-cell bundles <i>R. Chatterjee, *D. Ó Maoiléidigh</i>
09:45 – 10:00	O5	The stereocilia plasma membrane is actively regulated by TMCs to optimize mechanotransduction sensitivity <i>*A. J. Ricci, S. George, T. Effertz</i>
10:00 – 10:30		Break
		Session 2: Biophysics of the Cochlea – OHC Soma to IHC Afferents Chairpersons: D. Ó Maoiléidigh, A. Peng
10:30 – 10:45	O6	Sub-membranous chloride levels at the outer hair cell lateral membrane <i>*J. Santos-Sacchi, W. Tan, D. Navaratnam</i>
10:45 – 11:00	O7	Hearing at high frequencies depends on piezo-electric outer hair cells <i>*J. Ashmore</i>
11:00 – 11:15	O8	Cochlear dispersion shapes processing of dynamic sounds <i>*K. Charaziak</i>
11:15 – 11:30	O9	Stimulus level, but not stimulus frequency, is spatially coded at the apex of the cochlea <i>*A. Fridberger, W. Zaidi, P. Hakizimana, G. Burwood, A. Nuttall</i>
11:30 – 11:45	O10	<i>In vivo</i> spontaneous activity of type 1 spiral ganglion neurons in the pre-hearing mammalian cochlea <i>*C. Palfrey, F. De Faveri, F. Ceriani, W. Marcotti</i>
11:45 – 12:00	O11	The properties of intrinsic lateral olivocochlear feedback to the cochlea throughout maturation, ageing, and hearing dysfunction <i>*A. Carlton</i>
12:00 – 13:00		Lunch
13:00 – 14:30		Poster Presentations I P1 – P14: Biophysics of the Cochlea P15 – P25: Development P26 – P42: Hearing Loss 1/2

		Session 3: Molecular Insights to Make Auditory Connections
		Chairpersons: B. Fritzscht, G. Pavlinkova
14:30 – 14:45	O12	Eya1-Six1-regulatory network in inner ear development and hair cell formation <i>*P.-X. Xu</i>
14:45 – 15:00	O13	Restoration of Insm2 attenuates the abnormalities of <i>Insm1</i> -deficient cochlear outer hair cells <i>S. Li, *Z. Liu</i>
15:00 – 15:15	O14	SHANK2 establishes auditory hair bundle architecture essential for mammalian hearing <i>*J. Bok</i>
15:15 – 15:30	O15	Development of ear and cochlea nuclei requires <i>Irx3/5</i> and <i>Lmx1a/b</i> <i>*B. Fritzscht</i>
15:30 – 15:45	O16	Regulatory networks of NEUROD1 and ISL1 shape auditory neuron development and tonotopic map formation <i>*G. Pavlinkova, L. Gmitterkova, L. Lebron-Mora, R. Bohuslavova, K. Pysanenko, J. Syka, B. Fritzscht</i>
15:45 – 16:00	O17	Disentangling the various unknowns in the interface of sound and hair-cell electrical characteristics <i>*E. Yamoah</i>
16:00 – 16:30		Break

		Session 4: Pathomechanisms of Hearing Impairment
		Chairpersons: S. Pyott, E. Reisinger
16:30 – 17:00	O18	Target Lecture: Which types of hearing loss can be reversed? <i>*K. Steel</i>
17:00 – 17:15	O19	Spectrotemporal deficits in patients with DFNB8/12 (<i>TECTA</i>), DFNB16 (<i>STRC</i>), or DFNA13 (<i>COL11A2</i>) <i>*B. Bel Hach, M. van de Craats, R. Pennings, M. van Wanrooij, *C. Lanting</i>
17:15 – 17:30	O20	Identifying the mechanisms and potential new treatments for noise-induced hearing loss using metabolomics and lipidomics <i>*G. Corfas, G. Wallace, L. Ji, C. Lyssiotis, C. Burant, M. Kachman</i>
17:30 – 17:45	O21	The TECTB-C225Y variant causes autosomal dominant deafness in a Nicaraguan family enhances sensitivity to noise-induced hearing loss in ageing mice <i>E. B. Hale, B. Vona, R. J. Goodyear, R. T. Osgood, S. S. Amr, K. Mojica, R. Vera-Monroy, K. Callahan, K. L. Gudlewski, R. Quadros, C. C. Morton, C. Gurumurthy, J. E. Saunders, G. P. Richardson, *A. A. Indzhykulian</i>
17:45 – 18:00	O22	Noise-induced hearing loss, cochlear synaptopathy, and a mouse mutant for increased inner hair cell presynaptic excitability <i>*J. Engel, K. Blum, P. Schepsky, P. Derleder, P. Schätzle, F. Nasri, P. Fischer, S. Kurt</i>
19:00 – 23:00		Afterwork Party AV Guestfalia Tübingen, Stauffenbergstraße 25, 72074 Tübingen