

**Tuesday, 16. September**

**Session 9: Protection, Repair, Regeneration**  
**Chairpersons: I. Varela-Nieto, H. Löwenheim**

- 08:30 – 08:45 O44 Single-cell RNA sequencing identifies organ-specific progenitor populations in the mouse otocyst  
*X. Bao, S. Chakraborty, J. Liu, \*J. Waldhaus*
- 08:45 – 09:00 O45 The function of NFI transcription factors in cochlear differentiation and hair cell regeneration  
*\*A. Doetzlhofer, C. Morgan*
- 09:00 – 09:15 O46 Unraveling Notch-mediated regulation of hair cell regeneration in the auditory system  
*\*L. Khalaila, S. Kasiser, K. Domb, B. Shao, S. Taiber, M. Sperber, O. Loza, L. Tao, R. Elkon, D. Sprinzak, K. B. Avraham*
- 09:15 – 09:30 O47 Chemistry-dependent efficacy of antisense oligonucleotides for DFNA9 across human cell and mouse models  
*F. Aben, E. Fousert, D. Verdoort, W. van den Boogaard, S. de Brujin, J. Oostrik, L. Sels, K. Szewczyk, W. van der Valk, P. Ponsaerts, H. Locher, V. Van Rompaey, E. van Wijk, \*E. de Vrieze*
- 09:30 – 09:45 O48 NOX4 as a key regulator of cochlear redox homeostasis during ageing  
*\*I. Varela-Nieto, M. Tapias-Martin, J. Contreras, J. M. Zubeldia, S. Murillo-Cuesta*
- 09:45 – 10:00 O49 Evidence of otoconia biogenesis outside of the macular organs  
*\*D. M. Correa, R. Osgood, A. A. Indzhykulian, S. Krämer, A. H. Eckhard*
- 10:00 – 10:30 **Break**

**Session 10: Speech Processing, Auditory Perception and Cognition**  
**Chairpersons: A. Fetoni, M. Knipper**

- 10:30 – 11:00 O50 Target Lecture:  
Hearing and cognition across the life course: Evidence from behaviour, electrophysiology, and brain stimulation  
*\*H. Nuttal*
- 11:00 – 11:15 O51 Use of OPM-MEG for auditory processing and cognition-related hearing disorders  
*\*R. A. Donoso-San Martin, S. M. Wolpert, S. Fink, P. H. Delano, C. Braun, L. Rüttiger, M. Knipper*
- 11:15 – 11:30 O52 Psychiatric comorbidity in patients with tinnitus or auditory hallucination and sleep evaluation, sound therapy and Shared Decision Making (SDM)  
*\*K. Kiyomizu, T. Nakamura, K. Takahashi, H. Funahashi*
- 11:30 – 11:45 O53 Alterations in the auditory cortex synaptic activity contribute to early noise-induced cognitive decline in a mouse model of Alzheimer's disease  
*\*F. Paciello, V. Mohamed Hizam, C. Vernamonte, A. Pisani, M. Rinaudo, A. R. Fetoni, C. Grassi*
- 11:45 – 12:00 O54 Hearing loss differentially impacts behavioral assays of memory  
*S. Hemachandran, \*A. J. Ricci*
- 12:00 – 13:00 **Lunch**
- 13:00 – 14:30 **Poster Presentations III**  
P83 – P90: [Protection, Repair, Regeneration](#)  
P91 – P96: [Cochlear Implants](#)  
P97 – P105: [Speech Processing, Auditory Perception, Cognition](#)

**Session 11: Novel Approaches to Cochlear and Cortical Stimulation and Assessment in Primates**  
**Chairpersons: M. Jeschke, S. Hage**

- 14:30 – 15:00 O55 Target Lecture:  
Neural coding mechanisms in auditory cortex  
*\*X. Wang*
- 15:00 – 15:15 O56 Translational auditory gene therapy in non-human primates: From genetic modeling to optogenetic restoration  
*\*M. Jeschke, R. Behr, F. Benseler, A. Berenson, N. Brose, T. Bruegmann, C. Drummer, T. Kahlund, K. Kusch, D. L. Lindenwald, T. Mager, A. Meyer, T. Moser, A. Rambousky, N. Rüger, O. Tkachenko Eikel, M. Uhl, B. Wolf, S. S. Yalamarthi*
- 15:15 – 15:30 O57 The electrically-evoked compound-action potential-derived Failure Index as neural health marker  
*\*W. Konerding, A. Günther, P. Baumhoff, C. Batsoulis, S. Vormelcher, S. Strahl, H. Benav, A. Büchner, A. Kral*
- 15:30 – 15:45 O58 Model-based characterisation of auditory nerve responses to electrical stimulation  
*R. Felsheim, \*D. Sly, S. O'Leary, M. Dietz*
- 15:45 – 16:30 **Business Meeting**  
**Close of Workshop**