

## Subject Index—Volume 4, 2003

- Acoustic reflex decay, 41  
Acoustic reflexes, 521  
Acoustic trauma, 445  
Acoustically evoked inhibition, 1  
Additivity, 405  
Adult human central auditory system, 235  
Afterimage, 312  
Age-related hearing loss, 353  
Aging, 164, 371, 495  
Ambient noise levels, 445  
Aminoglycoside, 91, 176, 196, 219, 565  
Anatomical models, 250  
Apical structure, 505  
Apoptosis, 466  
*Aqp5* null mutant mice, 264  
Aquaporin expression, 264  
Auditory brainstem response, 371  
Auditory compression, 405  
Auditory cortex, 106  
Auditory evoked potentials, 235, 555  
Auditory evoked responses, 276  
Auditory filters, 541  
Auditory nerve modeling, 294  
Auditory nerve responses, 294  
Auditory processing, 148  
Auditory sensory epithelia, 422  
Avian basilar papilla, 91
- Basilar membrane motion, 416  
Basilar papilla, 91  
 $\beta$  tubulin isotypes, 329  
Binaural unmasking, 123  
Bromodeoxyuridine (BrdU), 164  
Bullfrog saccular hair cells, 565  
Bullfrog sacculus, 363
- C57BL/6J mice, 495  
Calyx of Held, 1  
Caspase activation, 466  
Caspases, 91  
CBA/CaJ mice, 330, 353, 371, 495  
CD-1 mice, 353  
CD4<sup>+</sup> T cells, 384  
CD68<sup>+</sup> monocyte macrophages, 384  
CD8<sup>+</sup> T cells, 384  
Cell division, 164  
Cell proliferation, 422  
Central auditory system, 235  
Central nucleus, 148  
Children, 123  
Chinchilla, 466  
Chronic otitis media with mucoid effusion, 384  
Cloning, 83  
Cochlea, 330, 445  
Cochlear amplifier, 478  
Cochlear basilar membrane, 478  
Cochlear caspases, 466  
Cochlear endolymphatic potassium, 353  
Cochlear gentamicin uptake, 176  
Cochlear implant, 49  
Cochlear micromechanics, 416  
Cochlear model, 478  
Cochlear nonsensory cells, 196  
Cochlear physiology, 521  
Cochlear secondary immune response, 139  
Cochlear sensory cells, 196  
Cochlear tuning, 541  
Compound action potential, 276  
Compression, 405  
Compressive nonlinearity, 294  
Computed tomography, 250  
Conductive hearing loss, 123  
Cytochemistry, 196  
Cytochrome c, 466
- Deafness, 83, 130, 235, 394  
Development, 264  
Dipole source modeling methods, 235  
Discharge rate, 294  
Distortion product otoacoustic emission, 276, 555  
Dorsal cochlear nucleus, 148
- Efferent assay, 521  
Efferent protection, 445  
Eighth nerve, 276, 363  
Electrode configuration, 49  
Endocochlear potential, 330, 353, 394  
Endocochlear potential decrease, 164  
Endocytosis, 565  
Endolymph, 394  
Endolymphatic sac, 139, 394  
Epidermal growth factor, 422  
ErbB expression, 422  
Excess masking, 405
- Fibrocytes, 164, 196  
Firing rate, 312  
Fluorescence optical sectioning, 250  
Fluorescently conjugated gentamicin, 565  
Forward masking, 405, 541  
Furosemide, 164
- GABA receptors, 60  
GABAergic inputs, 106  
Gene expression, 24  
Genetic screening, 219  
Gentamicin, 91, 176, 196, 565  
Gerbil inner ear, 164  
Gerbil medial nucleus, 1  
Gerbil vestibular sensory epithelia, 329  
Glycine receptors, 60  
Guinea pig, 276  
Guinea pig inner ear, 176
- Hair cell death, 91, 219  
Hair cell regeneration, 219, 422  
Hair cells, 329, 363, 505, 565  
Head-related transfer function, 148  
Hearing function, 371  
Hearing genes, 24  
Hearing loss, 495  
Hearing loss candidate genes, 24  
Hedgehog tenrec, 555  
Heregulin, 422  
Hydrodynamic model, 478
- Immune response, 139  
Immunocytochemistry, 176  
Immunolabeled gentamicin, 565  
Immunostaining, 196  
Impaired binaural hearing, 123  
Indirect immunofluorescence, 329  
Inferior colliculus, 60, 148  
Information, 294  
Inhibitory receptor blockade, 60  
Innate immunity, 139  
Inner ear, 176, 264, 394, 422, 505  
Inner ear gene expression, 24  
Inner ear inflammation, 139  
Inner ear model, 478  
Inner ear protection, 445  
Inner hair cells, 196  
Insectivora, 555  
Intensity discrimination, 294  
Intrinsically bursting cells, 106  
Isotype-specific antibodies, 329  
*Jeff(Jf)* mutant, 130
- Jerker (*Espr<sup>ie</sup>*), 83
- Kinematics, 416
- Lateral efferent pathways, 276  
Lateral line, 219  
Lateral superior olive, 276  
Lateral wall, 330  
Layer V pyramidal cells, 106  
Level discrimination, 294  
Linearity, 405  
Long-latency auditory evoked potentials, 235  
Low-frequency tonal stimuli, 495
- Magnetic resonance microscopy, 250  
Masking, 541

- Mechanical noise, 363  
 Mechanical transformation, 416  
 Medial nucleus of trapezoid body, 1  
 Medial olivocochlear efferent reflex, 521  
 Medial olivocochlear efferent system, 445  
 Micro-CT scanner, 250  
 Micromechanics, 416  
 Microtubules, 329  
 Middle ear, 371, 478  
 Middle ear disease, 123  
 Middle ear infection, 371  
 Middle ear muscle contractions, 521  
 Middle ear ossicular chain, 250  
 Miniature inhibitory postsynaptic currents, 106  
 Modifying alleles, 83  
 Mouse cochlea, 330  
 Mouse deafness mutations, 83, 130  
 Mouse genetics, 130  
 Mouse inner ear, 24, 264, 394, 422, 264  
 Mouse utricular sensory epithelia, 422  
*MUC4* gene, 384  
*MUC5B* gene, 384  
 Mucins, 384  
 Mucoid otitis media, 384  
 Mucous cell metaplasia, 384  
 Mustached bat, 60  
  
 Natural acoustic environments, 445  
 Neomycin, 219  
 Neonatal mouse, 422  
 Neural coding, 294, 312  
 Neural correlates, 312  
 Neuromasts, 219  
 Neuronal inhibition, 1  
 Neuronal protein, 74  
 Noise damage, 330  
 Noise-induced apoptosis, 466  
 Noise-induced hearing loss, 445  
 Nonlinear phase, 294  
 Notched noise, 312, 541  
  
 Odorant transduction complex, 74  
 Olfactory receptor neurons, 74  
  
 Olivocochlear efferents, 521  
 Olivocochlear neurons, 276  
 129S6/SvEvTac mice, 371  
 Organ of Corti, 416  
 Organ of Corti degeneration, 353  
 Ossicular chain, 250  
 Otitis media, 384  
 Otitis media with effusion, 123, 130  
 Otoacoustic emissions, 478, 521  
 Ototoxicity, 176, 196, 219, 565  
 Outer hair cell death, 466  
 Outer hair cell mechanical response, 445  
 Outer hair cell motility, 416  
  
 Pallid bat, 60  
*Pds* knockout mice, 394  
 Peak cross correlation, 312  
 Pendred syndrome, 394  
 Pendrin, 394  
 Plasticity, 235, 495  
 Postsynaptic activity, 1  
 Potassium concentration, 353, 394  
 Prepotential, 1  
 Presbycusis, 164, 353, 371  
 Presynaptic activity, 1  
 Primary auditory cortex, 312  
 Proinflammatory cytokine expression, 139  
 Psychoacoustics, 541  
  
 Rat auditory cortex, 106  
 Regular spiking cells, 106  
 Relative phase cues, 294  
 Reptiles, 505  
 Residual oscillations, 478  
 Response latency, 60  
  
 Sacculus, 363  
 Siebert's model, 294  
 Signal detection theory, 294  
 Signal-to-noise ratio, 363  
 Signal transmission, 363  
 Simultaneous masking, 541  
 Sinusoidal amplitude modulation, 41  
 Slider turtle, 505  
  
 Sound localization, 148  
 Spatial hearing, 123  
 Spectral cues, 148  
 Speech perception, 49  
 Spiral ganglion neuron density, 353  
 Spiral ligament, 164, 196, 330, 353  
 Spiral limbus, 196  
 Spontaneous inhibitory postsynaptic currents, 106  
 Startle reflexes, 495  
 Stereology, 505  
 Stimulus frequency otoacoustic emissions, 521  
 Stimulus level, 49  
 Stochastic resonance, 363  
 Stomatin, 74  
 Stomatin-like protein 3 (SLP3), 74  
 Stria vascularis, 196, 330, 394  
 Striola, 505  
 Supporting cells, 329  
 Syllable identification, 49  
 Synchrony, 294  
 Synchrotron radiation, 250  
  
 Temporal coding, 41  
 Three-dimensional modeling, 250  
 Threshold shift, 330  
 Tone pip, 495  
 Transduction proteins, 74  
 Tumor necrosis factor  $\alpha$ , 139  
 Two-tone stimulation, 1  
 Type IV units, 148  
 Type O units, 148  
  
 Umbo velocity, 371  
 Unilateral deafness, 235  
 Utricular macula, 422, 505  
  
 Varitint-waddler (*Va*), 83  
 Vestibular sensory epithelia, 329, 422  
  
 Weber's law, 294  
  
 X-ray CT scanner, 250  
  
 Zebrafish, 219  
 Zwicker tone, 312