

NANOCI

Nanotechnology based CIs with gapless interface to auditory neurons

PD Dr. med. P. Senn

Coordinator of NANOCI

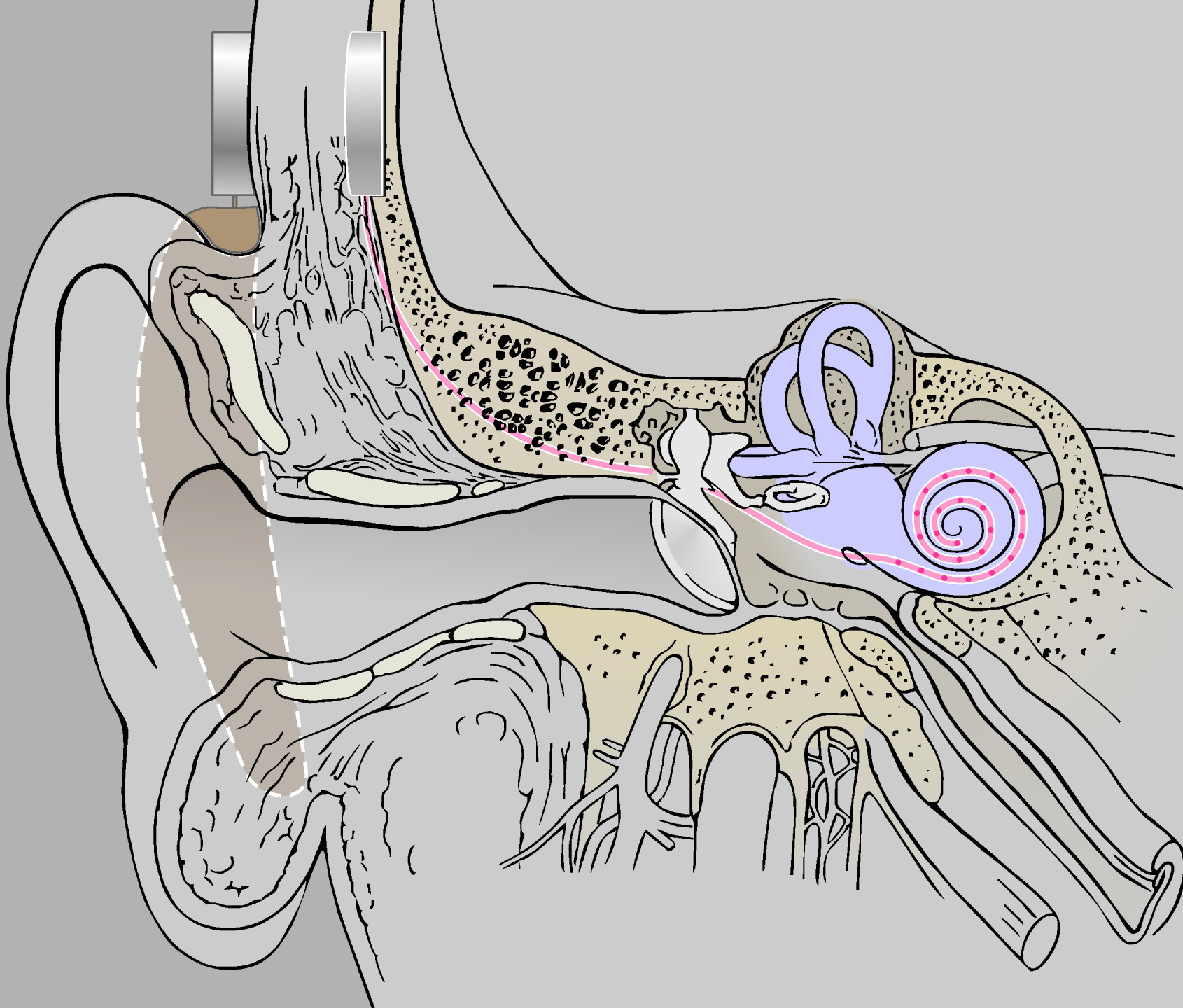
Univ. Department of ORL & HNS, Inselspital and DCR, University of Bern, Switzerland
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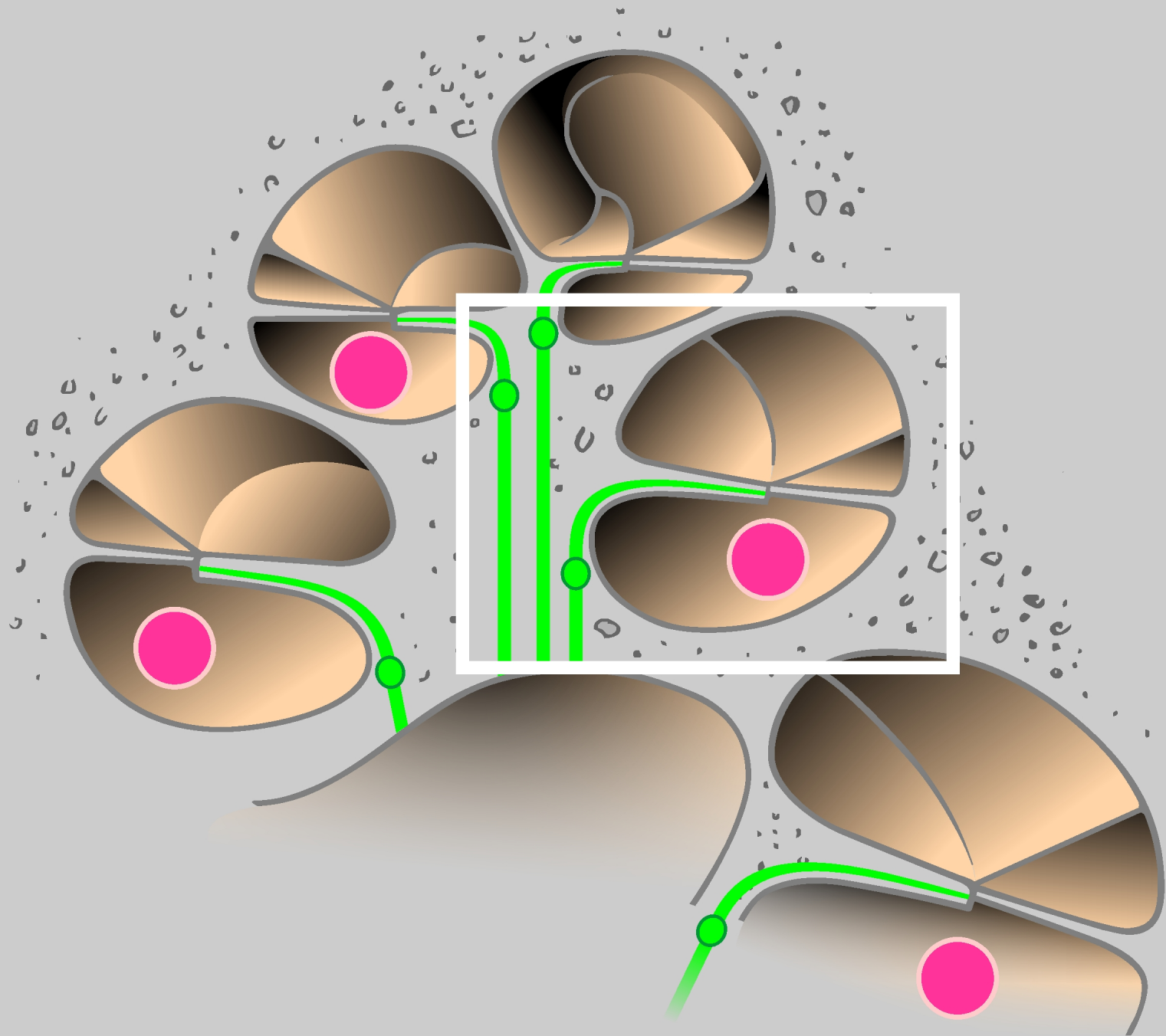


Geneva

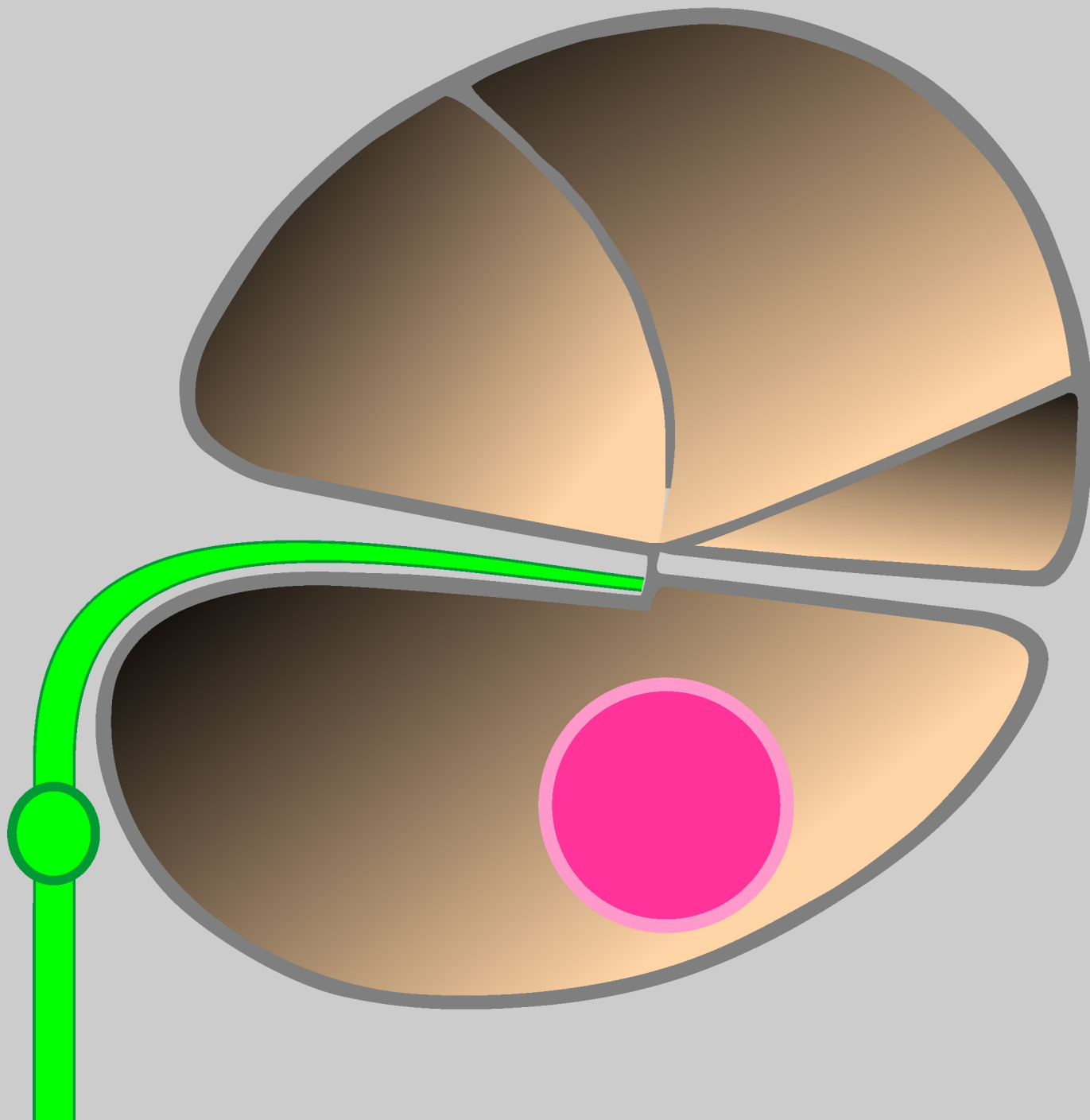


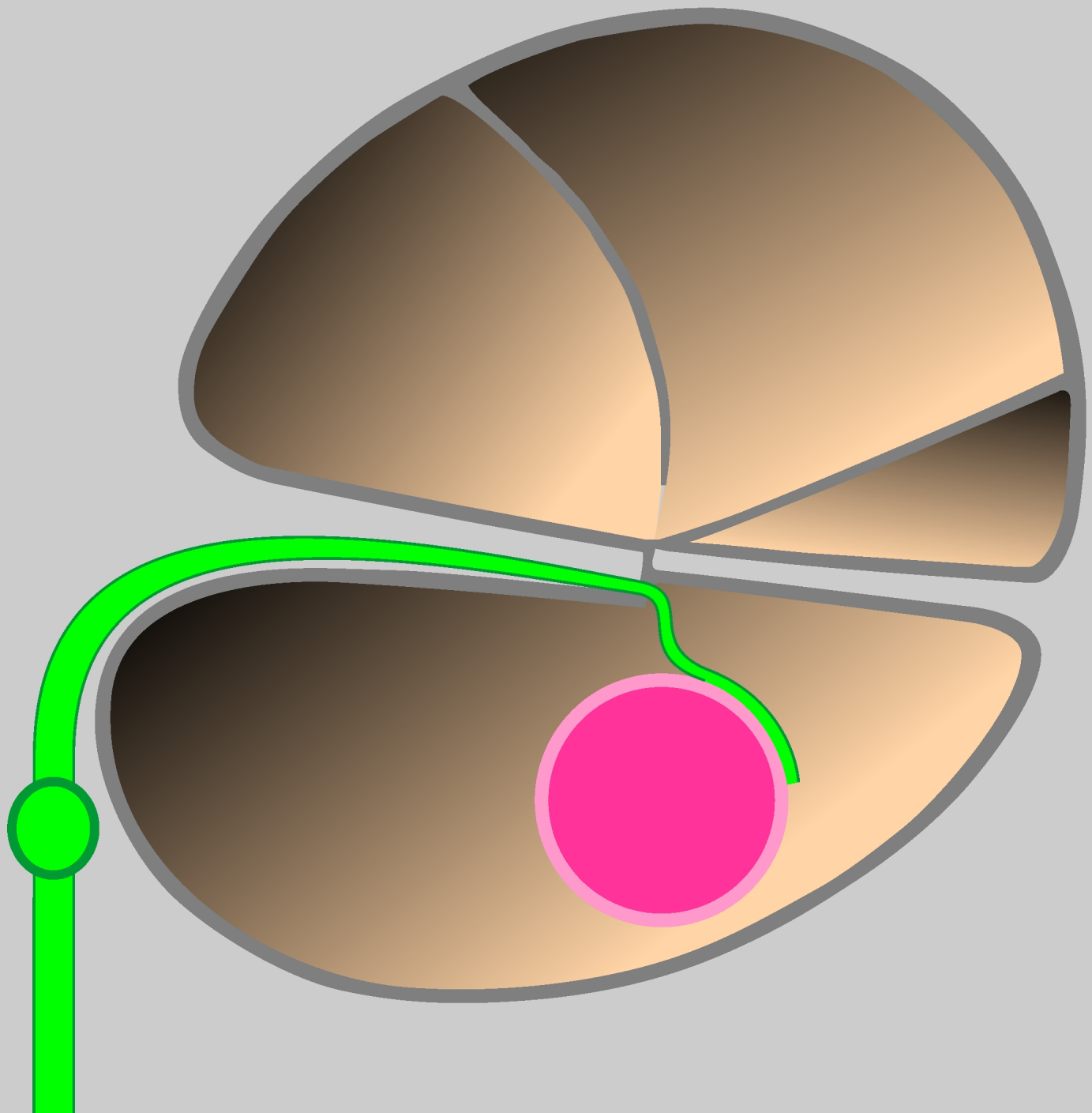
Bern

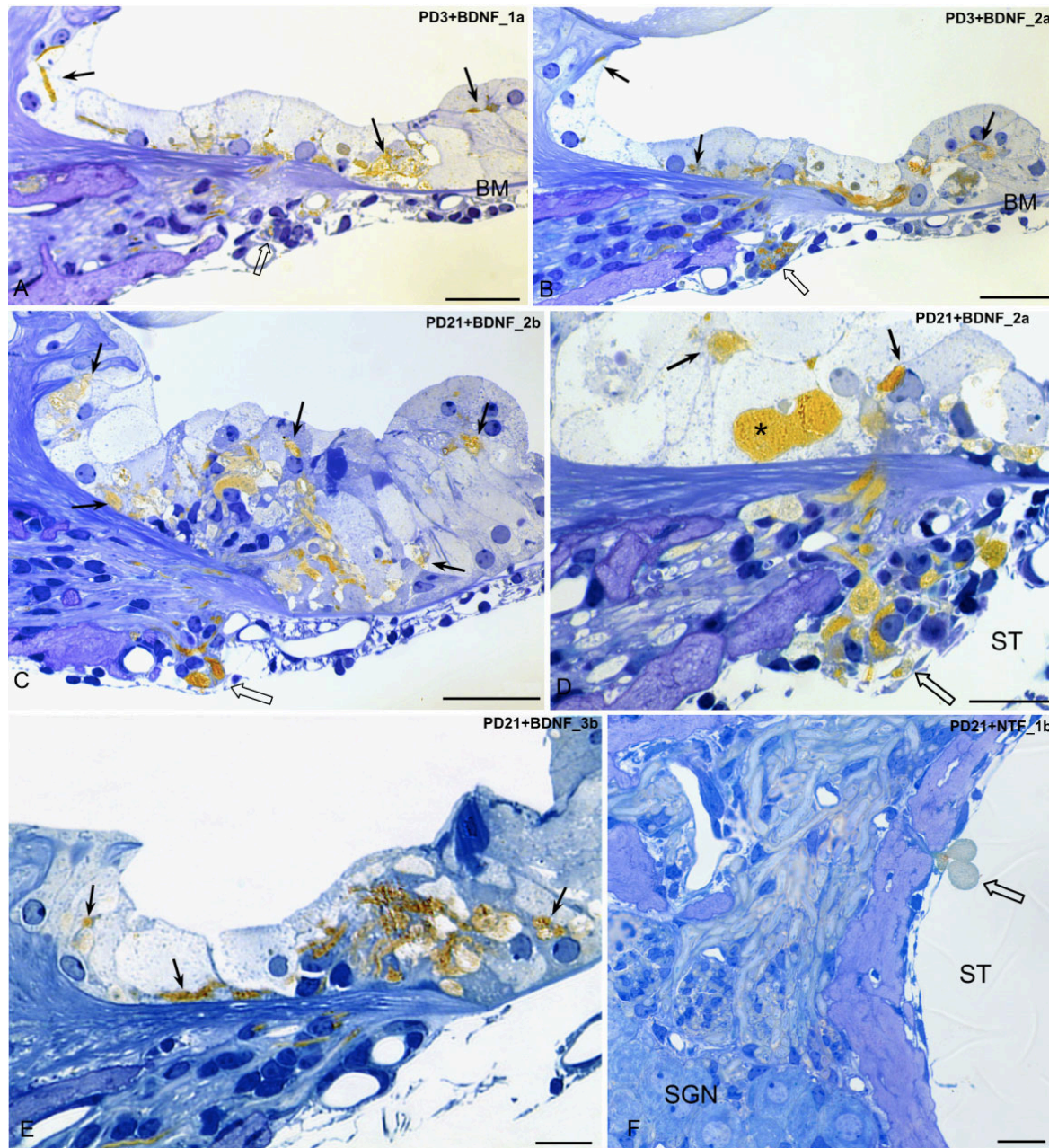




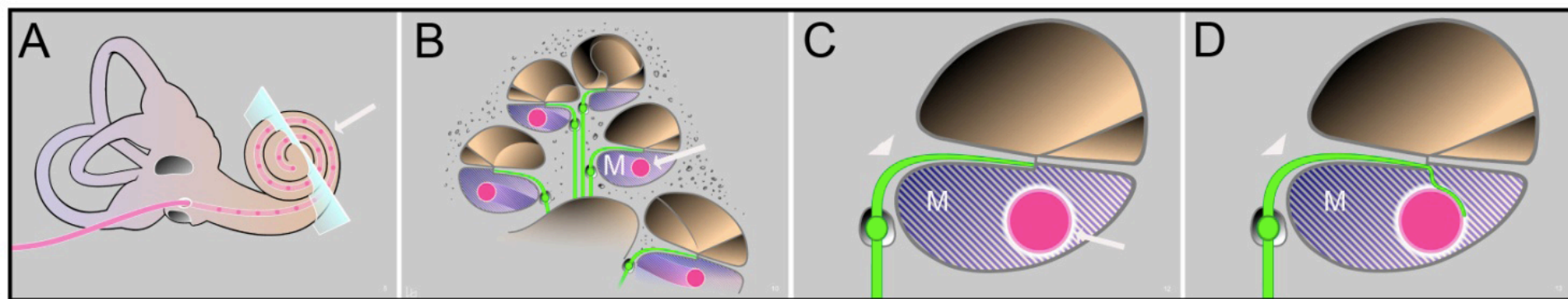


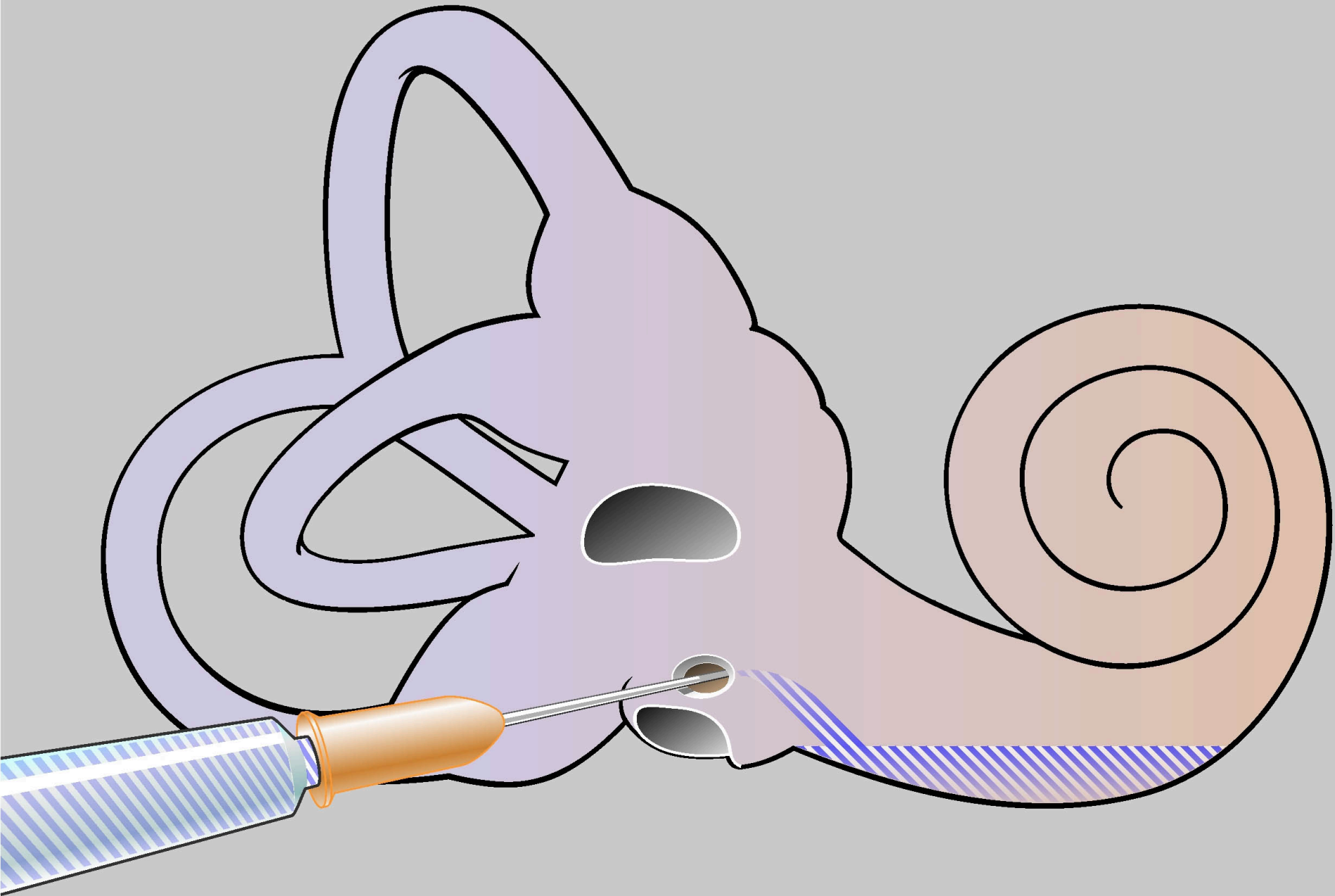


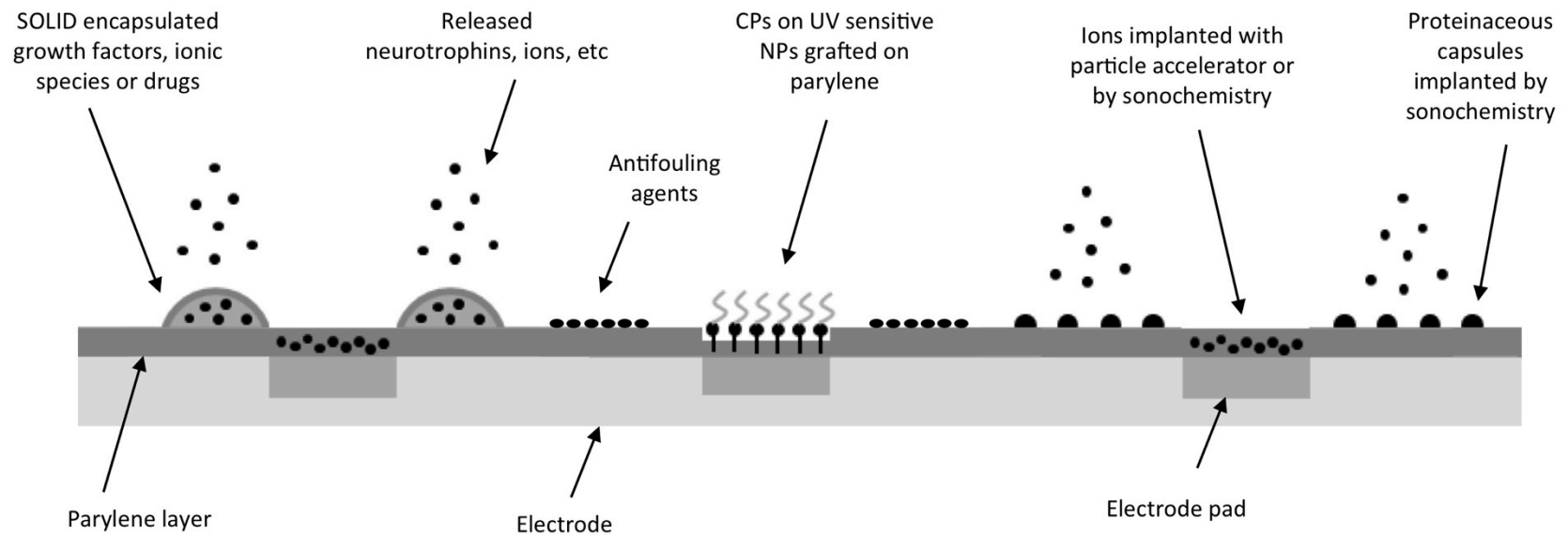


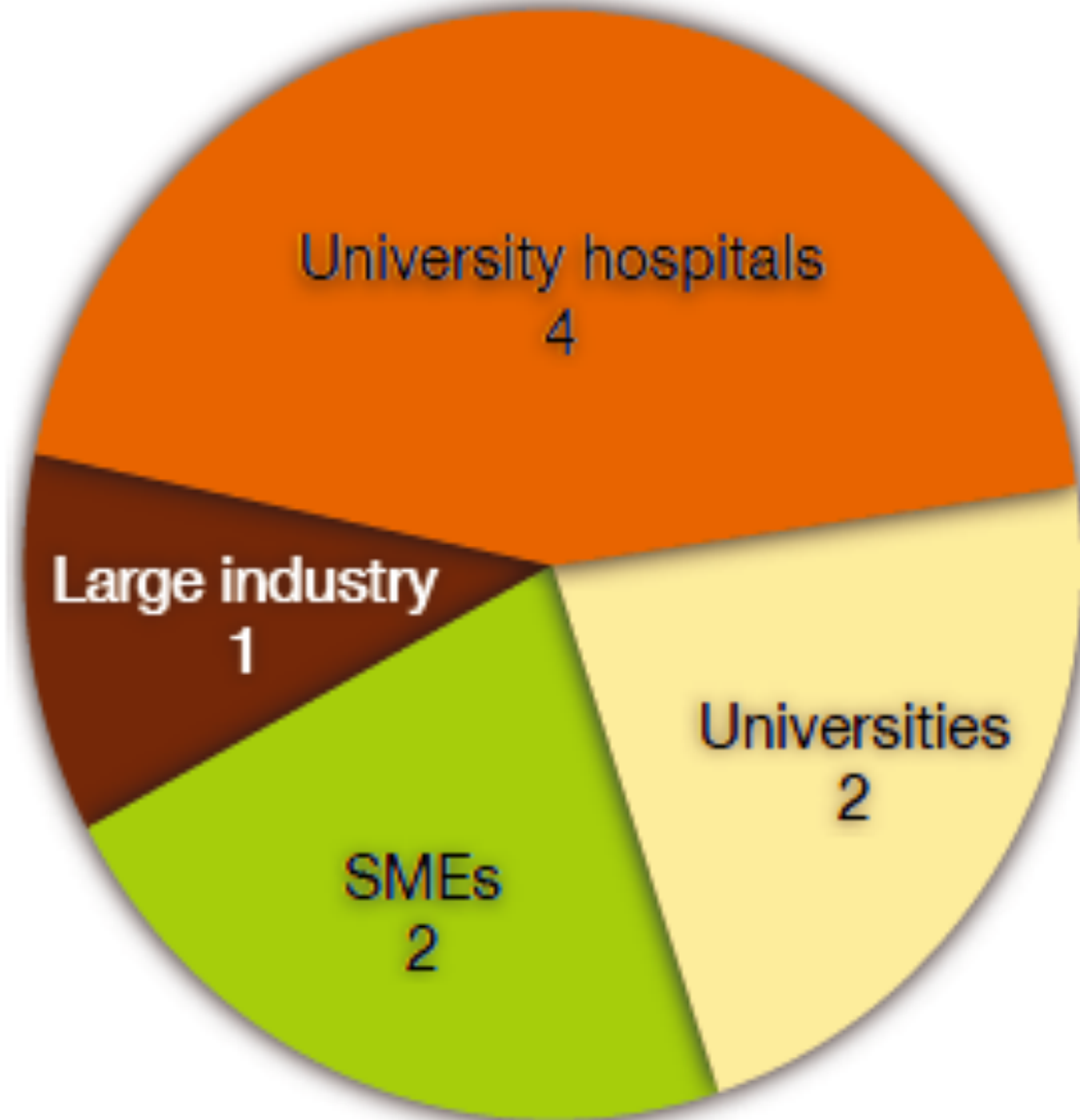


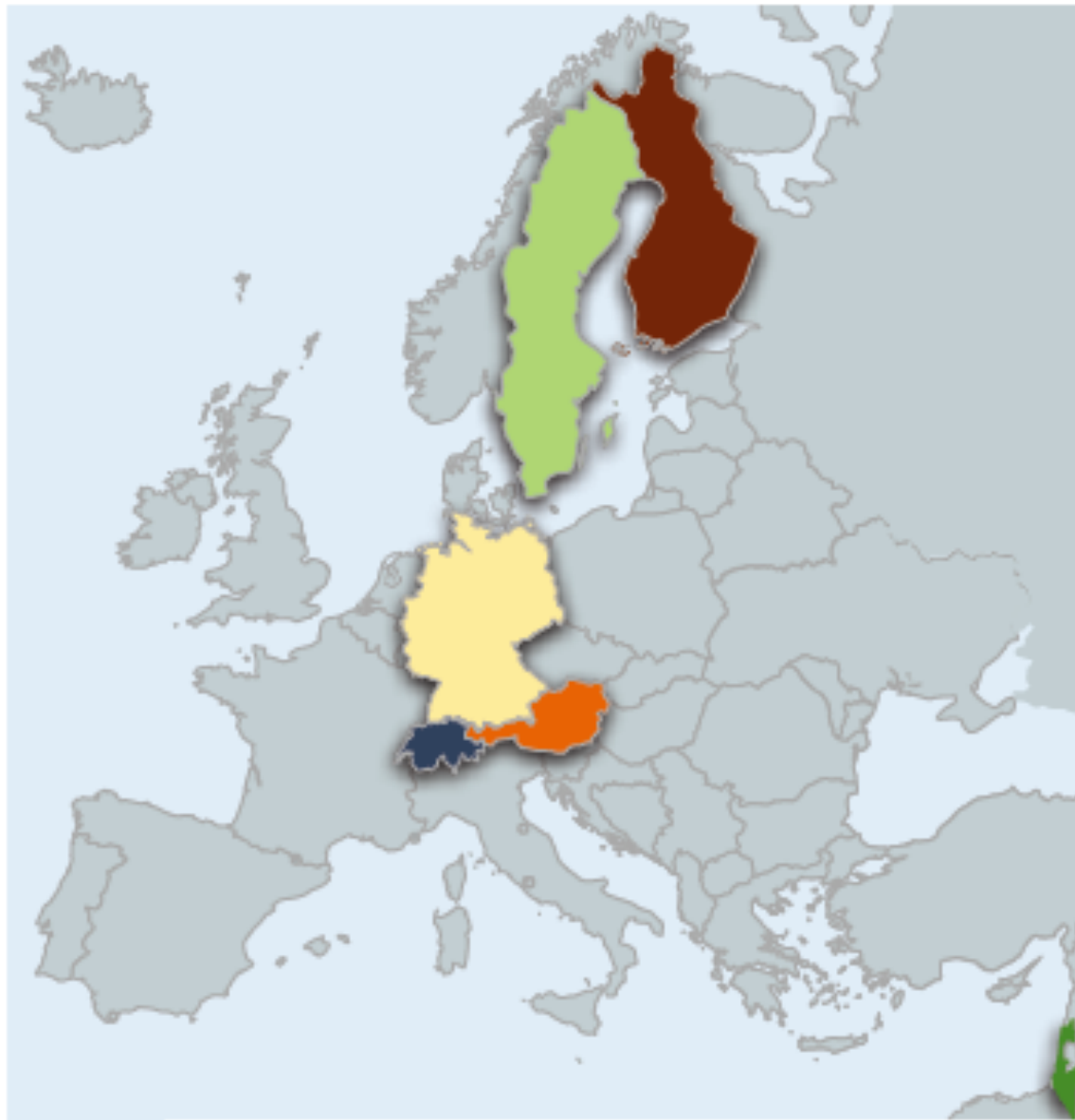
Gluckert et al, JCR 2008



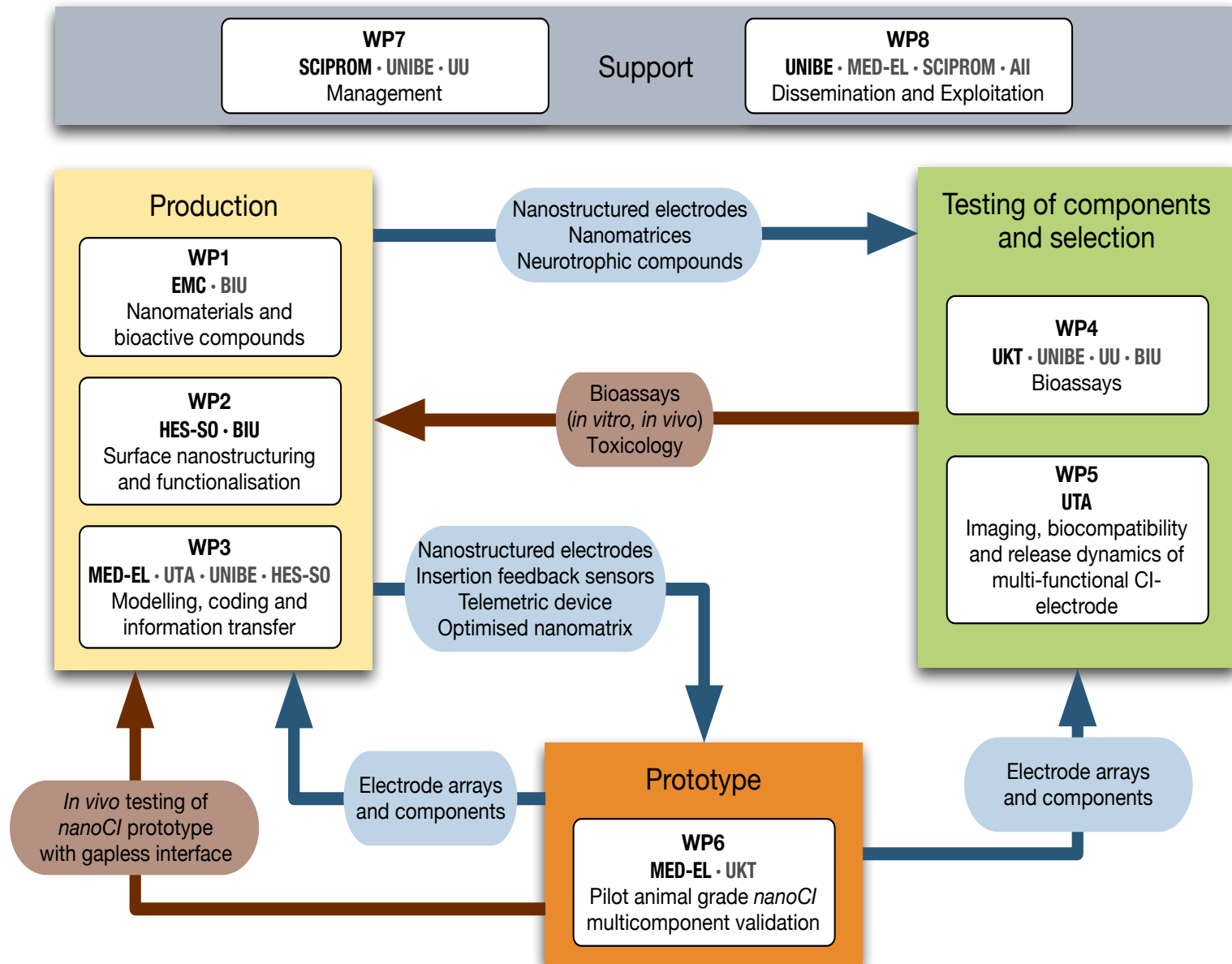








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Conclusion

- The endpoint of the project is an animal-grade cochlear implant prototype with gapless interface to auditory neurons
- If successful, implants with higher resolution and lower energy consumption could be developed on the NANOCI platform
 - more „natural hearing“?
 - fully implantable systems?
- Methods of regenerative medicine, nanotechnology and biomedical engineering are used in concert to achieve the ambitious approach

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