A microarray and immuno-histochemical study, aiming to explore and demonstrate potential natriuretic peptides in the human endolymphatic sac

Multiple genes with direct natriuretic capability was identified and subsequently verified by immuno-histochemistry, including:

1. **Brain natriuretic peptide (BNP)**
2. **C-type natriuretic peptide (CNP)**
3. **Adrenomedullin 2/Intermedin**
4. **Oxytocin (OXT)**

Perhaps most significant finding was Uroguanylin (UGN) in the ES epithelia. This specific peptide is a potent natriuretic through regulation of Pendrin as well as several sodium channels

**Conclusion:**
The human endolymphatic sac expresses several potent natriuretic peptides. Thus it may have true endocrine and/or paracrine capabilities and is likely to regulate inner ear homeostasis, but may also influence systemic and/or intracranial blood pressure