# Article information:

Programmed cell death pathways in hearing loss: A review of apoptosis, autophagy and programmed necrosis - Wu - 2020 - Cell Proliferation - Wiley Online Library  
<https://onlinelibrary.wiley.com/doi/10.1111/cpr.12915>

# Article summary:

1. Hearing loss (HL) is a common sensory defect in humans, and mutations in various genes have been proposed to be the cause of HL. The well-known types of acquired HL are ototoxic drug-induced hearing loss (ODIHL), age-related hearing loss (ARHL), and noise-induced hearing loss (NIHL).

2. Programmed cell death (PCD) plays a critical role in the development and diseases of the inner ear. Several forms of PCD have been found in eukaryotes, including apoptosis, autophagy, programmed necrosis, entosis, ferroptosis, lysosome-dependent cell death, and parthanatos.

3. Apoptosis is an active and highly ordered cell death process regulated by genes and enzymes through intrinsic (mitochondrial), extrinsic (death receptor), and endoplasmic reticulum pathways. Apoptosis plays an important role in maintaining the normal growth of an organism.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章提供了关于听力损失与程序性细胞死亡（PCD）之间的关系的综述。然而，该文章存在一些潜在的偏见和不足之处。

首先，该文章没有充分探讨其他可能导致听力损失的因素，如感染、营养不良等。这可能导致读者对听力损失的全面理解受到限制。

其次，该文章过于强调PCD在听力损失中的作用，而忽略了其他可能的机制。例如，炎症反应和氧化应激也被认为是导致听力损失的重要因素。

此外，该文章没有提供足够的证据来支持其主张。虽然它提到了一些研究结果，但并没有详细说明这些结果是如何得出的或它们是否具有普遍适用性。

最后，该文章似乎缺乏平衡地呈现双方观点的意识。它只关注了PCD在听力损失中的作用，并未探讨其他可能存在的观点或争议。

总之，尽管该文章提供了一些有价值的信息和见解，但它也存在一些潜在偏见和不足之处。因此，在阅读和引用时需要谨慎考虑其内容及其可靠性。

# Topics for further research:

* Other factors causing hearing loss
* Alternative mechanisms of hearing loss
* Insufficient evidence to support claims
* Lack of balanced presentation of viewpoints
* Potential biases in the article
* Caution in reading and citing the article

# Report location:

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