# Article information:

The LuxS/AI-2 system regulates the probiotic activities of lactic acid bacteria - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0924224422001820>

# Article summary:

1. Lactic acid bacteria (LAB) have probiotic activities that balance gastrointestinal functions, enhance immunity, and exert anti-aging effects.

2. The LuxS/AI-2 system plays an important role in regulating the probiotic activities of LAB by helping them tolerate environmental stress, improving their resistance to gastric acids and bile salt, and enhancing intestinal adhesion and colonization.

3. Quorum sensing systems, particularly the LuxS/AI-2 system, are crucial in the interactions among LAB and contribute to their metabolic cooperation and spatiotemporal niche partitioning.

# 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:

该文章主要介绍了乳酸菌的益生作用及其调节机制，特别是细胞间信号传递和AI-2/LuxS系统在乳酸菌之间的相互作用。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乳酸菌可能存在的负面影响和潜在风险。虽然乳酸菌被广泛认为是安全微生物，并且具有多种益生作用，但它们也可能引起某些人群的过敏反应或其他不良反应。此外，在使用乳酸菌作为功能性食品或保健产品时，需要注意其剂量、配方和质量控制等问题。

其次，该文章未能平等地呈现双方观点。虽然该文章提到了一些研究表明AI-2/LuxS系统对乳酸菌之间的相互作用具有重要作用，但并未提及其他可能存在的调节机制或相互作用方式。因此，读者可能会得出AI-2/LuxS系统是唯一重要的调节机制的结论。

此外，该文章缺少对所提出主张的证据支持。例如，在介绍营养依赖性和AI-2/LuxS系统对乳酸菌之间相互作用的影响时，文章未提供具体的实验数据或研究结果来支持这些主张。

最后，该文章可能存在一定程度的宣传内容和偏袒。虽然该文章提到了一些研究表明乳酸菌具有多种益生作用，但并未提及其他可能存在的争议或负面报道。此外，该文章可能会给读者留下“乳酸菌是万能的”、“AI-2/LuxS系统是唯一重要的调节机制”的印象，而忽略了其他可能存在的因素。

综上所述，虽然该文章介绍了乳酸菌益生作用及其调节机制方面的一些研究进展，但仍存在一些潜在偏见和不足之处。为了更全面地了解乳酸菌及其益生作用，需要进一步探讨其潜在风险、其他调节机制以及相关研究结果的证据支持等问题。

# Topics for further research:

* Potential negative effects and risks of probiotics
* Other regulatory mechanisms and interactions among probiotics
* Evidence supporting the claims made in the article
* Potential biases and favoritism in the article
* Dosage
* formulation
* and quality control issues in using probiotics as functional foods or supplements
* Controversies and negative reports related to probiotics

# Report location:

<https://www.fullpicture.app/item/231c3beddc0fa66feab562cb4543e9fe>