# Article information:

Skin-interfaced microfluidic systems with spatially engineered 3D fluidics for sweat capture and analysis | Science Advances  
<https://www.science.org/doi/10.1126/sciadv.adg4272>

# Article summary:

1. Skin-interfaced wearable systems with integrated microfluidic structures and sensing capabilities offer powerful platforms for monitoring the signals arising from natural physiological processes, such as sweat biomarkers.

2. A 3D printed epifluidic platform, called a “sweatainer,” demonstrates the potential of a true 3D design space for microfluidics through the fabrication of fluidic components with previously inaccessible complex architectures.

3. The sweatainer system enables a new mode of sweat collection, termed multidraw, which facilitates the collection of multiple, independent sweat samples for either on-body or external analysis.

# Article rating:

Appears strongly imbalanced: The article is written in a biased or one-sided way, and the information it provides is not trustworthy enough to be considered a reliable source. You should consult other sources to find reliable information on the presented issues.

# Article analysis:

该文章介绍了一种新型的皮肤微流控系统，可以捕获和分析汗液中的生物标志物。然而，该文章存在以下问题：

1. 偏见来源：该文章没有提及可能的风险和潜在的负面影响，只强调了这种技术的优点和应用前景。这可能会导致读者对该技术的实际效果和安全性产生误解。

2. 片面报道：该文章只介绍了3D打印技术在制造微流控系统方面的优势，但没有提及其缺点或局限性。例如，3D打印技术可能会导致材料不均匀、表面粗糙等问题，这些问题可能会影响微流控系统的性能。

3. 缺失考虑点：该文章没有考虑到汗液采集过程中可能出现的其他因素，如环境温度、湿度等因素对汗液成分的影响。这些因素可能会导致采集到的汗液样本与实际情况不符。

4. 主张缺失证据：该文章提出了一种新型汗液采集方法“multidraw”，但并未提供足够的证据来支持其有效性和可靠性。此外，该方法是否适用于不同类型的汗液样本也没有得到充分考虑。

5. 未探索反驳：该文章没有探讨其他可能存在的汗液采集方法，也没有与传统方法进行比较。这可能会导致读者对该技术的实际效果和优劣产生误解。

6. 宣传内容：该文章过于强调了该技术的应用前景和优点，而忽略了其潜在的局限性和风险。这可能会导致读者对该技术的实际效果和安全性产生误解。

综上所述，该文章存在一些偏见、片面报道、缺失考虑点、主张缺失证据、未探索反驳等问题。因此，在阅读该文章时需要保持批判性思维，并结合其他相关信息进行综合评估。

# Topics for further research:

* Potential risks and negative impacts
* Limitations and drawbacks of 3D printing technology
* Other factors that may affect sweat composition during collection
* Evidence supporting the effectiveness and reliability of the multidraw method
* Comparison with other sweat collection methods
* including traditional ones
* Potential limitations and risks of the technology
* in addition to its benefits and applications

# Report location:

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