# Article information:

MultiGran-SMILES: multi-granularity SMILES learning for molecular property prediction | Bioinformatics | Oxford Academic  
<https://academic.oup.com/bioinformatics/article/38/19/4573/6663988>

# Article summary:

1. A multi-granularity SMILES learning model called MultiGran-SMILES is proposed for molecular property prediction.

2. The model leverages the advantages of atom-level, substring-level and molecular graph representations simultaneously and adaptively adjusts the contribution of each type of representation for molecular property prediction.

3. Experiments on widely used datasets show that MultiGran-SMILES outperforms state-of-the-art models on BBBP, LogP, HIV and ClinTox datasets, and achieves comparable performance on BACE, FDA and Tox21 datasets.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “MultiGran-SMILES: multi-granularity SMILES learning for molecular property prediction” is a well written piece that provides an overview of the proposed MultiGran-SMILES model for molecular property prediction. The authors provide a detailed description of the model and its components, as well as a thorough analysis of its performance on various datasets.

The article is reliable in terms of its content; however, there are some potential biases that should be noted. For example, the authors focus mainly on the advantages of their proposed model over existing methods without providing any evidence to support their claims or exploring possible counterarguments. Additionally, they do not discuss any potential risks associated with using this model or present both sides equally when discussing existing methods.

In conclusion, while this article provides a comprehensive overview of the proposed MultiGran-SMILES model for molecular property prediction, it does not explore all aspects thoroughly enough to be considered completely trustworthy and reliable.

# Topics for further research:

* Molecular property prediction risks
* Advantages of existing methods
* Counterarguments to MultiGran-SMILES model
* Performance comparison of MultiGran-SMILES model
* MultiGran-SMILES model limitations
* MultiGran-SMILES model applications

# Report location:

<https://www.fullpicture.app/item/84a4a7920ef3853977f22ff9410bc1e5>