

# Accepted Manuscript

## Fine-grained Leukocyte Classification with Deep Residual Learning for Microscopic Images

Feiwei Qin, Nannan Gao, Yong Peng, Zizhao Wu, Shuying Shen, Artur Grudtsin

PII: S0169-2607(18)30056-7  
DOI: [10.1016/j.cmpb.2018.05.024](https://doi.org/10.1016/j.cmpb.2018.05.024)  
Reference: COMM 4721



To appear in: *Computer Methods and Programs in Biomedicine*

Received date: 11 January 2018  
Revised date: 11 April 2018  
Accepted date: 16 May 2018

Please cite this article as: Feiwei Qin, Nannan Gao, Yong Peng, Zizhao Wu, Shuying Shen, Artur Grudtsin, Fine-grained Leukocyte Classification with Deep Residual Learning for Microscopic Images, *Computer Methods and Programs in Biomedicine* (2018), doi: [10.1016/j.cmpb.2018.05.024](https://doi.org/10.1016/j.cmpb.2018.05.024)

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**Highlights**

- According to the knowledge of white blood test domain, a leukocyte classifier (Cell3Net) based on deep residual learning theory is constructed.
- Multiple training strategies and properly selected and combined together to make the classifier get better generalization performance.
- A benchmark dataset containing about 100,000 leukocytes belonging to 40 categories is built for the purpose of training and testing.

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