**Gargareta et al., Figure 3-source data 1**

*Parameters applied for scRNA-seq individual dataset quality control and integrative analysis*

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| --- | --- | --- | --- | --- |
| Publication | Cell Filter  | PCs for Embedding/ PCs for Embedding Healthy OLG only (Resolution) | Original Cell Number (including none OLGs and/or non-healthy) | Recovered OPCs/NFOs/MOL |
| MOUSE ALL | - | /20 (0.5) | 108,390 | 1,957/10,391/95,966 |
| Falcão et al. (2018)GSE113973 | Cells from EAE mice were excluded(see Methods Falcão et al. (2018)) | /14 (0.5) | 1,765 | 116/17/612 |
| Marques et al. (2016) GSE775330 | (see Methods Marques et al. (2016)) | 20 (0.5) | 5,069 | 310/652/4,031 |
| Saunders et al. (2018)GSE116470 | Cell types other than OLG were excluded(see Methods Saunders et al. (2018)) | / | 49,270 | 0/0/49,270 |
| Wheeler et al. (2020)GSE130119 | Cell types other than OLG were excluded;Cells from EAE mice were excluded(see Methods Wheeler et al. (2020)) | 30 (0.5)  | 71,310 | 0/0/1,373 |
| Ximerakis et al. (2019)GSE129788 | Cell types other than OLG were excluded;Mt: <30%(see MethodsXimerakis et al. (2019)) | 40 (0.5) / 13 (0.5) | 36,908 | 0/0/15,400 |
| Zeisel et al. (2018)SRP135960  | Cell types other than OLG were excluded(see MethodsZeisel et al. (2018)) | / 20 (0.5)  | 31,073 | 820/9,678/20,575 |
| Zeisel et al. (2015)GSE60361 | Cell types other than OLG were excluded(see MethodsZeisel et al. (2015)) | 30 (0.5) / 22 (0.5) | 3,005 | 0/0/820 |
| Zhou et al. (2020)GSE140511 | Cell types other than OLG were excluded;No Cut-off | 40 (0.5)/ 7 (0.5) | 90,634 | 711/44/3,885 |
| HUMAN ALL | - | /15 (0.4) | 55,242 | 41517/132/3700 |
| Grubman et al. (2019)GSE138852 | Cells from AD patients were excludedMt: <10%(see Methods Grubman et al. (2019) ) | 20 (0.5) / 7 (0.5) | 13,214 | 899/0/2,777 |
| Habib et al. (2017)Single Cell Portal DroNC-Seq human archived brain | > 10,000 readsper nucleus(see Methods Habib et al. (2017)) | 20 (0.5) / 30 (0.5) | 14,963 | 0/0/2,936 |
| Jäkel et al. (2019)GSE118257 | Cells from MS patients were excludedMt: <20%(see Methods Jäkel et al. (2019)) | 25 (0.5) / 10 (0.5) | 17,569 | 273/132/3,519 |
| Lake et al. (2018)GSE97930 | Mt genes excluded(see MethodsLake et al. (2018)) | /10 (0.5) | 5,690 | 1,337/0/4,353 |
| Wheeler et al. (2020)GSE130119 | Cell types other than OLG were excludedCells from MS patients were excludedMT: < 30%(see Methods Wheeler et al. (2020) | 20 (0.5) /20 (0.5) | 30,606 | 0/0/10,534 |
| Zhou et al. (2020)syn21125841 | Cell types other than OLG were excludedNo Cut-off | /12 (0.5) | 33,694  | 1,191/0/17,398 |
| MERGE ALL (MOL only) | - | /20 (0.1) | 146,239 | 3,700/132/41,517 |