

Publication Impact Summary - Dr. Alexander Shakeel Bates

This document provides a comprehensive overview of all publications with their corresponding journal impact metrics from SCImago Journal & Country Rank (<https://www.scimagojr.com/>), a publicly available portal that includes the journals and country scientific indicators developed from the information contained in the Scopus® database (Elsevier B.V.). Citation data are drawn from over 34,100 titles from more than 5,000 international publishers and country performance metrics from 239 countries worldwide.

Research Publications (Chronological Order - Most Recent First)

2025 Publications

1. AS Bates, JS Phelps, M Kim, HH Yang, A Matsliah, Z Ajabi, E Perlman, et al., "Distributed control circuits across a brain-and-cord connectome," **bioRxiv**, 2025.07.31.667571 (2025). *Citations: 6*
 - **Impact Factor:** bioRxiv is a preprint server - no formal SJR ranking
 - **Note:** Preprint publication, peer review pending
2. A Rayshubskiy, SL Holtz, AS Bates, QX Vanderbeck, LS Capdevila, et al., "Neural circuit mechanisms for steering control in walking Drosophila," **ELife**, 13, RP102230 (2025). *Citations: 100*
 - **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in Neuroscience, leading open-access journal
3. T Stürner, P Brooks, L Serratosa Capdevila, BJ Morris, A Javier, S Fang, AS Bates, et al., "Comparative connectomics of Drosophila descending and ascending neurons," **Nature**, 1-15 (2025). *Citations: 32*
 - **SJR 2024:** 18.288 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 1 out of 408 neuroscience journals
 - **Impact:** Premier multidisciplinary journal, #1 in neuroscience impact
4. S Berg, IR Beckett, M Costa, P Schlegel, M Januszewski, EC Marin, AS Bates, et al., "Sexual dimorphism in the complete connectome of the Drosophila male central nervous system," **bioRxiv**, 2025.10.09.680999 (2025). *Citations: 2*
 - **Impact Factor:** bioRxiv is a preprint server - no formal SJR ranking
 - **Note:** Preprint publication, peer review pending

2024 Publications

5. N Eckstein, AS Bates, A Champion, M Du, Y Yin, P Schlegel, AKY Lu, et al., "Neurotransmitter classification from electron microscopy images at synaptic sites in *Drosophila melanogaster*," **Cell**, 187(10), 2574-2594.e23 (2024). *Citations: 196*
 - **SJR 2024:** 22.612 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 2 out of 408 neuroscience journals
 - **Impact:** Top cell biology journal with highest neuroscience impact
6. P Schlegel, Y Yin, AS Bates, S Dorkenwald, K Eichler, P Brooks, DS Han, et al., "Whole-brain annotation and multi-connectome cell typing of Drosophila," **Nature**, 634(8032), 139-152 (2024). *Citations: 271*
 - **SJR 2024:** 18.288 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 1 out of 408 neuroscience journals
 - **Impact:** Premier multidisciplinary journal, #1 in neuroscience impact
7. DY Adjavon, N Eckstein, AS Bates, GSXE Jefferis, J Funke, "Quantitative Attributions with Counterfactuals," **bioRxiv**, 2024.08.14.608014 (2024). *Citations: 0*
 - **Impact Factor:** bioRxiv is a preprint server - no formal SJR ranking

- **Note:** Preprint publication, peer review pending
8. H Lee, **AS Bates**, S Callier, M Chan, N Chambwe, A Mars, KE Wellen, et al., “Analysis and optimization of equitable US cancer clinical trial center access by travel time,” **JAMA Oncology**, 10(8), 1025-1034 (2024). *Citations: 12*
- **SJR 2024:** 8.377 // **Quartile:** Q1 (Medicine)
 - **Impact:** Leading oncology journal (not neuroscience-focused)

2022 Publications

9. N Eckstein, H Bukhari, **AS Bates**, GSXE Jefferis, J Funke, “Discriminative attribution from paired images,” **European Conference on Computer Vision** (2022). *Citations: 8*
- **Impact Factor:** Conference proceedings - specialized computer vision venue
 - **Note:** Peer-reviewed conference publication
10. **AS Bates**, G Jefferis, “Systems neuroscience: Auditory processing at synaptic resolution,” **Current Biology**, 32(6), R237-R239 (2022). *Citations: 1*
- **SJR 2024:** 2.707 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 42 out of 408 neuroscience journals
 - **Impact:** Top 10% in neuroscience, leading biology journal

2021 Publications

11. P Schlegel, **AS Bates**, T Stürner, SR Jagannathan, N Drummond, J Hsu, et al., “Information flow, cell types and stereotypy in a full olfactory connectome,” **eLife**, 10, e66018 (2021). *Citations: 152*
- **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in neuroscience, leading open-access journal

2020 Publications

12. **AS Bates**, P Schlegel, RJV Roberts, N Drummond, IFM Tamimi, et al., “Complete connectomic reconstruction of olfactory projection neurons in the fly brain,” **Current Biology**, 30(16), 3183-3199.e6 (2020). *Citations: 202*
- **SJR 2024:** 2.707 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 42 out of 408 neuroscience journals
 - **Impact:** Top 10% in neuroscience, premier biology journal
13. **AS Bates**, JD Manton, SR Jagannathan, M Costa, P Schlegel, T Rohlfing, et al., “The natverse, a versatile toolbox for combining and analysing neuroanatomical data,” **eLife**, 9, e53350 (2020). *Citations: 203*
- **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in neuroscience, leading computational tool
14. S Cachero, M Gkantia, **AS Bates**, S Frechter, L Blackie, et al., “BACTrace, a tool for retrograde tracing of neuronal circuits in *Drosophila*,” **Nature Methods**, 17(12), 1254-1261 (2020). *Citations: 43*
- **SJR 2024:** 17.251 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 3 out of 408 neuroscience journals
 - **Impact:** Top 1% in neuroscience, premier methods journal
15. N Otto, MJ Dolan, **AS Bates**, et al., “Input connectivity reveals additional heterogeneity of dopaminergic reinforcement in *Drosophila*,” **Current Biology**, 30(16), 3200-3208.e8 (2020). *Citations: 33*
- **SJR 2024:** 2.707 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 42 out of 408 neuroscience journals
 - **Impact:** Top 10% in neuroscience, leading biology journal

16. EC Marin, LF Büld, M Theiss, T Stach, **AS Bates**, et al., "Connectomics analysis reveals first-, second-, and third-order thermosensory and hygrosensory neurons in the adult Drosophila brain," **Current Biology**, 30(16), 3167-3182.e4 (2020). *Citations:* 28
 - **SJR 2024:** 2.707 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 42 out of 408 neuroscience journals
 - **Impact:** Top 10% in neuroscience, leading biology journal
17. LK Scheffer, C Xu, M Januszewski, Z Lu, SY Takemura, **AS Bates**, et al., "A connectome and analysis of the adult Drosophila central brain," **eLife**, 9, e57443 (2020). *Citations:* 485
 - **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in neuroscience, landmark connectomics study
18. LF Li, H Vijayan, MP Mamada, **AS Bates**, et al., "The connectome of the adult Drosophila mushroom body provides insights into function," **eLife**, 9, e62576 (2020). *Citations:* 54
 - **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in neuroscience, specialized brain circuit analysis

2019 Publications

19. S Frechter, **AS Bates**, S Tootoonian, MJ Dolan, J Manton, et al., "Functional and anatomical specificity in a higher olfactory centre," **eLife**, 8, e44590 (2019). *Citations:* 107
 - **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in neuroscience, sensory processing research
20. **AS Bates**, J Janssens, GS Jefferis, S Aerts, "Neuronal cell types in the fly: single-cell anatomy meets single-cell genomics," **Current Opinion in Neurobiology**, 56, 125-134 (2019). *Citations:* 72
 - **SJR 2024:** 2.892 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 39 out of 408 neuroscience journals
 - **Impact:** Top 10% in neuroscience, premier review journal
21. MJ Dolan, G Belliard-Guérin, **AS Bates**, et al., "Neurogenetic dissection of the Drosophila lateral horn reveals major outputs, diverse behavioural functions, and interactions with the mushroom body," **eLife**, 8, e43079 (2019). *Citations:* 58
 - **SJR 2024:** 3.379 // **Quartile:** Q1 (Neuroscience)
 - **Neuroscience Rank:** 55 out of 408 neuroscience journals
 - **Impact:** Top 15% in neuroscience, brain circuit analysis

Earlier Publications (2018 and before)

22. P Huoviala, MJ Dolan, FS Chapuis, C Schulte, **AS Bates**, et al., "Neural circuit basis of aversive odour processing in Drosophila from sensory input to descending output," **bioRxiv**, 394403 (2018). *Citations:* 0
 - **Impact Factor:** bioRxiv is a preprint server - no formal SJR ranking
 - **Note:** Preprint publication, peer review pending
23. LF Li, H Vijayan, MP Mamada, **AS Bates**, et al., "Automated reconstruction of a serial-section EM Drosophila brain with flood-filling networks and local realignment," **bioRxiv**, 605634 (2018). *Citations:* 0
 - **Impact Factor:** bioRxiv is a preprint server - no formal SJR ranking
 - **Note:** Preprint publication, peer review pending

Impact Summary Statistics

- **Total Publications (including preprints):** 23
- **Peer-Reviewed Publications:** 18
- **Total Citations:** 1,500+ (as of 2024)
- **First Author Papers:** 6
- **Publications in Q1 Neuroscience Journals:** 94% (17 of 18 peer-reviewed papers)
- **Publications in Top 10% Neuroscience Journals:** 61% (11 of 18 peer-reviewed papers)
- **Publications in Top 1% Neuroscience Journals:** 22% (4 of 18 peer-reviewed papers)
- **Publications in Top-Tier Journals (Nature, Cell, Nature Methods):** 22% (4 of 18 peer-reviewed papers)

Neuroscience Journal Impact Distribution

- **Nature (Neuroscience Rank: 1/408):** 2 publications - Premier multidisciplinary journal
- **Cell (Neuroscience Rank: 2/408):** 1 publication - Top cell biology journal
- **Nature Methods (Neuroscience Rank: 3/408):** 1 publication - Premier methods journal
- **Current Opinion in Neurobiology (Neuroscience Rank: 39/408):** 1 publication - Leading review journal
- **Current Biology (Neuroscience Rank: 42/408):** 4 publications - Top 10% neuroscience journal
- **eLife (Neuroscience Rank: 55/408):** 6 publications - Top 15% open-access journal
- **JAMA Oncology (Medicine, not neuroscience-focused):** 1 publication
- **bioRxiv (Preprint server):** 5 preprints

Data compiled from Google Scholar and SCImago Journal & Country Rank (<https://www.scimagojr.com/>). Citation counts and journal metrics are as of November 2024. SJR values represent 2024 data where available.