Jonathon C. O. Mifsud

PhD Student • School of Medical Sciences • University of Sydney

Education The University of Sydney NSW, Australia PhD, School of Medical Sciences Jun 2021 - Present ■ Supervisor: Edward C. Holmes ■ Co-supervisor: Erin Harvey Macquarie University NSW, Australia 2021 Master of Research, Biological Sciences ■ Thesis: Explorations of the plant virosphere ■ Mark: 92/100 ■ Supervisor: Rachael V. Gallagher ■ Co-supervisor: Jemma L. Geoghegan Bachelor of Advanced Science, Biology 2018 Australian Government Research Training Program Stipend, Grants and 2022 - Present Scholarships University of Sydney Postgraduate Research Scholarship in Virus Ecology and Evolution, 2021-2022 University of Sydney William Macleay Microbiology Research Fund (\$1,500), 2020 Linnean Society of NSW RTP Master of Research Stipend, Macquarie University 2019-2020 Professional **Research Assistant** Experience Phylagen, Inc 2021 Hawkesbury Institute for the Environment, Western Sydney University 2021 GenIMPACT, Macquarie University 2020 2019-2020 Plant Ecology & Conservation Lab, Macquarie University Presentations **Invited talks** 2023 Mining RNA viruses across the plant kingdom, Verena Lighthouse Lightning Talk Series (virtual) Contributed talks Identification of a novel papillomavirus from a New Zealand fur seal 2023 with oral papilloma-like lesions, MicroSeq (virtual) Transcriptome mining extends the host range of the Flaviviridae 2022 to the basal Metazoa, Wellcome Virus Genomics and Evolution **Posters** Insights from small scale transcriptome mining projects in Eukaryotes 2023 The RdRp Summit (virtual) 2020 Mining public plant transcriptomes to reveal a diverse plant virosphere

Updated January 6, 2024

	Wellcome Genome Infomatics Conference (virtual) Explorations of the plant virosphere Ecological Society of Australia 60th Anniversary Conference (virtual)	2020
Honors and Awards	Australian Society for Microbiology Award for Best Lightning Talk	2023
	Executive Dean's Commendation for Academic Excellence in Year 2 MRES	2021
	Year 1 Biology prize for the best MRES Biology student overall	2019
	Macquarie University Merit List	2019
	300 Level Biology Prize for the best student overall	2018
Teaching and	Teaching	
Service	Peer Assisted Learning, Macquarie University BIOL 115: Genes to Organisms BIOL 122: Biological Basis of Behaviour	17-2018
	Outreach	
	Big Picture, Sydney Secondary College, Balmain, NSW, Australia	2023
	Workshops	
	Macquarie University R-Users Group Committee Hosted and presented workshops and help sessions on Introductory R topics	2020
	Journal Reviewing	
	Archives of Virology	2023
Publications	Costa, V. A., Bellwood, D. R., Mifsud, J. C. O., Van Brussel, K., Geoghegan, J. L., Holmes, E. C., & Harvey, E. (2023). Limited cross-species virus transmission in a spatially restricted coral reef fish community. <i>Virus Evolution</i> , <i>9</i> (1). Costa, V. A., Ronco, F., Mifsud, J. C. O., Harvey, E., Salzburger, W., & Holmes, E. C. (2023). Host adaptive radiation is associated with rapid virus diversification and cross-species transmission in african cichlid fishes. <i>bioRxiv</i> . doi:10.1101/2023.06.28.546811. Gallagher, R. V., Allen, S. P., Goyaerts, R., Rivers, M. C., Allen, A. P., Keith, D. A.,	

- Gallagher, R. V., Allen, S. P., Govaerts, R., Rivers, M. C., Allen, A. P., Keith, D. A., ... Adams, V. M. (2023). Global shortfalls in threat assessments for endemic flora by country. *Plants People Planet*, *5*(6), 885–898.
- Harvey, E., Mifsud, J. C. O., Holmes, E. C., & Mahar, J. E. (2023). Divergent hepaciviruses, delta-like viruses, and a chu-like virus in australian marsupial carnivores (dasyurids). *Virus Evolution*, *9*(2). doi:10.1093/ve/vead061.
- Mifsud, J. C. O., Costa, V. A., Petrone, M. E., Marzinelli, E. M., Holmes, E. C., & Harvey, E. (2023). Transcriptome mining extends the host range of the flaviviridae to non-bilaterians. *Virus Evolution*, *9*(1). doi:10.1093/ve/veac124.
- Mifsud, J. C. O., Hall, J., Van Brussel, K., Rose, K., Parry, R. H., Holmes, E. C., & Harvey, E. (2023). Identification of a novel papillomavirus from a new zealand fur seal (arctocephalus forsteri) with oral papilloma-like lesions. *bioRxiv*. doi:10.1101/2023.11.20.567757.
- Petrone, M. E., Parry, R., Mifsud, J. C. O., Van Brussel, K., Voorhees, I. E. H., Richards, Z. T., & Holmes, E. C. (2023). Evidence for an ancient aquatic origin of the rna viral order articulavirales. *Proceedings of the National Academy of Sciences*, 120(45). doi:10.1073/pnas.2310529120.

Updated January 6, 2024

- Sadiq, S., Harvey, E., Mifsud, J. C. O., Minasny, B., McBratney, A. B., Pozza, L. E., ... Holmes, E. C. (2023). Australian terrestrial environments harbour extensive rna virus diversity. *bioRxiv*. doi:10.1101/2023.10.09.561620.
- Mifsud, J. C. O., Gallagher, R. V., Holmes, E. C., & Geoghegan, J. L. (2022). Transcriptome mining expands knowledge of rna viruses across the plant kingdom. *Journal of Virology*, *96*(24). doi:10.1128/jvi.00260-22.
- Costa, V. A., Mifsud, J. C. O., Gilligan, D., Williamson, J. E., Holmes, E. C., & Geoghegan, J. L. (2021). Metagenomic sequencing reveals a lack of virus exchange between native and invasive freshwater fish across the murray–darling basin, australia. *Virus Evolution*, 7(1). doi:10.1093/ve/veab034.
- Geoghegan, J. L., Di Giallonardo, F., Wille, M., Ortiz-Baez, A. S., Costa, V. A., Ghaly, T., ... Holmes, E. C. (2021). Virome composition in marine fish revealed by meta-transcriptomics. *Virus Evolution*, 7(1). doi:10.1093/ve/veab005.
- Miller*, A. K., Mifsud*, J. C. O., Costa*, V. A., Grimwood, R. M., Kitson, J., Baker, C., ... Geoghegan, J. L. (2021). Slippery when wet: Cross-species transmission of divergent coronaviruses in bony and jawless fish and the evolutionary history of the coronaviridae. *Virus Evolution*, 7(2). * authors contributed equally. doi:10.1093/ve/veab050.

Books

Antonelli, A., Fry, C., Smith, R. J., Eden, J., Govaerts, R. H. A., Kersey, P., ... Zuntini, A. R. (2023). State of the world's plants and fungi, 2023. *Royal Botanic Gardens, Kew.* doi:10.34885/wnwn-6s63.

Software

BatchArtemisSRAMiner - Virus Discovery Pipeline [Shell and R app]. doi:10.5281/zenodo.8417950

github.com/JonathonMifsud/BatchArtemisSRAMiner