

Publications by Guillaume Carissimo (as of May 2025)

Lead author peer-reviewed publications:

S Tong Jia Ming, K Tan Yi Jun, **G Carissimo***, Pathogenicity and virulence of O'nyong-nyong virus: A less studied Togaviridae with pandemic potential. (2024) *Virulence* 15 (1), 2355201.

Lee CY*, **Carissimo G*#**, Teo TH, Tong SJM, Chang ZW, Rajarethinam R, Chua TK, Chen Z, Chee RS, Tay A, Howland SW, Ang KS, Chen J, Renia L, Ng LFP#. CD8+ T Cells Trigger Auricular Dermatitis and Blepharitis in Mice after Zika Virus Infection in the Absence of CD4+ T Cells. *J Invest Dermatol.* 2023 Jun;143(6):1031-1041.e8. doi: 10.1016/j.jid.2022.11.020. *co-first authors #co-corresponding

Chan YH*, Fong SW*, Poh CM*, **Carissimo G***, Yeo NKW, Amrun SN, Lim J, Xu W, Chee RSL, Torres-Ruesta A, Lee CYL, Tay MZ, Chang ZW, Tan SY, Kalimuddin S, Young BE, Leo YS, Lee B, Röttschke O, Lye DC, Renia L, Ng LFP. Asymptomatic COVID-19: disease tolerance with efficient anti-viral immunity against SARS-CoV-2. *EMBO Mol Med* (2021) doi: 10.15252/emmm.202114045. *co-first authors

Carissimo G and Ng LFP. A promiscuous interaction of SARS-CoV-2 with bacterial products. *J. Mol. Cell Biol.* (2021) doi: 10.1093/jmcb/mjaa068. (commentary)

Carissimo G*#, Xu W*, Kwok I*, Yazid Abdad M, Chan Y-H, Fong SW, Puan KJ, Lee CYP, Yeo NK-W, Amrun SN, Chee RS-N, How W, Chan S, Fan EB, Andiappan A, Lee B, Rotzschke O, Young BE, Leo Y-S, Lye DC, Renia L, Ng LG, Larbi A, Ng LFP#. Whole blood immunophenotyping uncovers immature neutrophil-to-VD2 T-cell ratio as an early marker for severe COVID-19. *Nat Commun* (2020) doi: 10.1038/s41467-020-19080-6. *co-first authors #co-corresponding

Poh, C. M.*, **Carissimo, G.***, Wang, B.*, Amrun, S. N., Lee, C. Y., Chee, R. S., Fong, S. W., Yeo, N. K., Lee, W. H., Torres-Ruesta, A., Leo, Y. S., Chen, M. I., Tan, S. Y., Chai, L. Y. A., Kalimuddin, S., Kheng, S. S. G., Thien, S. Y., Young, B. E., Lye, D. C., Hanson, B. J., Wang, C. I., Renia, L. & Ng, L. F. P. Two linear epitopes on the SARS-CoV-2 spike protein that elicit neutralising antibodies in COVID-19 patients. *Nat Commun* (2020) doi:10.1038/s41467-020-16638-2m. *co-first authors

Carissimo G, Chan YH, Utt A, Chua TK, Bakar FA, Merits A, et al. VCP/p97 Is a Proviral Host Factor for Replication of Chikungunya Virus and Other Alphaviruses. *Front Microbiol.* (2019) doi: 10.3389/fmicb.2019.02236.

Carissimo G, Ng LFP. Understanding Molecular Pathogenesis with Chikungunya Virus Research Tools. *Curr Top Microbiol Immunol.* (2019) doi: 10.1007/82_2019_158.

Carissimo G, Teo TH, Chan YH, Lee CY, Lee B, Torres-Ruesta A, et al. Viperin controls chikungunya virus-specific pathogenic T cell IFNgamma Th1 stimulation in mice. *Life Sci Alliance.* (2019) doi: 10.26508/lsa.201900298.

Carissimo G, Pain A, Belda E, Vernick KD. Highly focused transcriptional response of *Anopheles coluzzii* to O'nyong nyong arbovirus during the primary midgut infection. *BMC Genomics*. (2018) doi: 10.1186/s12864-018-4918-0.

Carissimo G, van den Beek M, Vernick KD, Antoniewski C. Metavisitor, a Suite of Galaxy Tools for Simple and Rapid Detection and Discovery of Viruses in Deep Sequence Data. *PLoS One*. (2017) doi: 10.1371/journal.pone.0168397.

Carissimo G, Eiglmeier K, Reveillaud J, Holm I, Diallo M, Diallo D, et al. Identification and Characterization of Two Novel RNA Viruses from *Anopheles gambiae* Species Complex Mosquitoes. *PLoS One*. (2016) doi: 10.1371/journal.pone.0153881.

Carissimo G, Pondeville E, McFarlane M, Dietrich I, Mitri C, Bischoff E, et al. Antiviral immunity of *Anopheles gambiae* is highly compartmentalized, with distinct roles for RNA interference and gut microbiota. *Proc Natl Acad Sci U S A*. (2015) doi: 10.1073/pnas.1412984112.

Original, peer-reviewed publications:

Lum F-M, Chan Y-H, Teo T-H, Becht E, Amrun SN, Teng KWW, Hartimath SV, Yeo NKW, Yee W-X, Ang N, Torres-Ruesta AM, Fong S-W, Goggi JL, Newell EW, Renia L, **Carissimo G**, Ng LFP. Crosstalk between CD64+MHCII+ macrophages and CD4+ T cells drives joint pathology during chikungunya. *EMBO Molecular Medicine* (2024). 16:641-663-663.

Tay MZ, Tang W, Lee W-C, Ong ASM, Novera W, Malleret B, **Carissimo G**, Chacko A-M, El-Sahili A, Lescar J, Fan Y, McGready RM, Chu CS, Chan JKY, Ng LFP, Russell B, Nosten F, Rénia L. Functional and Immunologic Mapping of Domains of the Reticulocyte-Binding Protein *Plasmodium vivax* PvRBP2a. *The Journal of Infectious Diseases* (2024) 230:e737-e742.

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