

COI affiliated Publications in 2020/2021

- 1) Dejnirattisai W, Zhou D, Ginn, H.M, Duyvesteyn H.M.E, ... **Mongkolsapaya J***, Diamond M.S*, Ren J*, **Stuart D.I***, Screaton, GR*. The Antigenic Anatomy of SARS-CoV-2 Receptor Binding Domain. *Cell*. 2021 Feb 18. doi:<https://doi.org/10.1016/j.cell.2021.02.032>.
- 2) Supasa P#, Zhou D#, Dejnirattisai W#, **Liu C#**, Mentzer A.J... **Mongkolsapaya J***, Ren J*, **Stuart D.I***, Screaton, G.R*, Reduced neutralization of SARS-CoV-2 B.1.1.7 variant by convalescent and vaccine sera. *Cell*. 2021 Feb 18. doi: <https://doi.org/10.1016/j.cell.2021.02.033>.
- 3) Zhou D#, Dejnirattisai W#, Supasa P#, **Liu C#**, Mentzer A#,... **Mongkolsapaya J***, Ren J*, **Stuart D.I***, Screaton, G.R*. Evidence of escape of SARS-CoV-2 variant B.1.351 from natural and vaccine induced sera. *Cell*. 2021 Feb 23. doi:<https://doi.org/10.1016/j.cell.2021.02.037>
- 4) Ewer K.J, Barrett J.R, Belij-Rammerstorfer S. et al. T cell and antibody responses induced by a single dose of ChAdOx1 nCoV-19 (AZD1222) vaccine in a phase 1/2 clinical trial. *Nat Med*. 2021 Feb;27(2):279-288. doi: 10.1038/s41591-020-01179-4.
- 5) Tan TK#, **Rijal P#**, Rahikainen R, Keeble A, Schimanski L, Hussain S, ... McCauley JW, Huang KA, Howarth M, **Townsend AR***. A COVID-19 vaccine candidate using SpyCatcher multimerization of the SARS-CoV-2 spike protein receptor-binding domain induces potent neutralising antibody responses. *Nat Commun*. 2021 Jan 22, 12, 542. doi: 10.1038/s41467-020-20654-7.
- 6) The National SARS-CoV-2 Serology Assay Evaluation Group. Performance characteristics of five immunoassays for SARS-CoV-2: a head-to-head benchmark comparison. *Lancet Infect Dis*. 2020 Dec;20(12):1390-1400. doi: 10.1016/S1473-3099(20)30634-4.
- 7) Barrett J.R, Belij-Rammerstorfer S, Dold C. ...Oxford COVID Vaccine Trial Group. Phase 1/2 trial of SARS-CoV-2 vaccine ChAdOx1 nCoV-19 with a booster dose induces multifunctional antibody responses. *Nat Med*. 2020 Dec 17. <https://doi.org/10.1038/s41591-020-01179-4>.
- 8) Maheshi N Ramasamy, Angela M Minassian, Katie J Ewer, ... Oxford COVID Vaccine Trial Group. Safety and immunogenicity of ChAdOx1 nCoV-19 vaccine administered in a prime-boost regimen in young and old adults (COV002): a single-blind, randomised, controlled, phase 2/3 trial. *The Lancet*. 2020 Dec 19, 396(10267):1979-1993. doi: 10.1016/S0140-6736(20)32466-1.

- 9) **Peng Y#**, Mentzer AJ#, **Liu G#**, **Yao X#**, **Yin Z#**, Dong D#, Dejnirattisai W#, ..., **Chris Conlon**, **Screaton GR**, **Mongkolsapaya J**, **McMichael A**, **Knight JC**, **Ogg G**, **Dong T***. Broad and strong memory CD4 + and CD8 + T cells induced by SARS-CoV-2 in UK convalescent individuals following COVID-19. *Nat Immunol.* 2020 Nov;21(11):1336-1345. doi: 10.1038/s41590-020-0782-6.
- 10) Pinto-Fernandez A, Salio M, Partridge T, Chen J ... Cerundolo V, **Kessler BM***. Deletion of the deISGylating enzyme USP18 enhances tumour cell antigenicity and radiosensitivity. *Br J Cancer.* 2020 Nov 20. doi: 10.1038/s41416-020-01167-y.
- 11) Zhou D, Duyvesteyn HME, Chen CP, Huang CG, ... **Townsend AR**, Fry EE, Zhao Y, Ren J, **Stuart DI***, Huang KA*. Structural basis for the neutralization of SARS-CoV-2 by an antibody from a convalescent patient. *Nat Struct Mol Biol.* 2020 Oct;27(10):950-958. doi: 10.1038/s41594-020-0480-y.
- 12) Rahikainen R#, **Rijal P#**, Tan TK#, Wu HJ, Andersson AC, Barrett JR, Bowden TA, Draper SJ, **Townsend AR***, Howarth M*. Overcoming Symmetry Mismatch in Vaccine Nanoassembly through Spontaneous Amidation. *Angew Chem Int Ed Engl.* 2020 Sep 4. doi: 10.1002/anie.202009663.
- 13) Huo J, Le Bas A, Ruza R.R.... **Townsend A**, **Stuart DI**, Owens RJ, Naismith JH. Neutralizing nanobodies bind SARS-CoV-2 spike RBD and block interaction with ACE2. *Nat Struct Mol Biol.* 2020 Sep;27(9):846-854. doi: 10.1038/s41594-020-0469-6.
- 14) Huo J, Zhao Y, Ren J, Zhou D, Duyvesteyn HME, Ginn HM, ... **Townsend A**, Fry EE, Owens RJ, **Stuart DI***. Neutralization of SARS-CoV-2 by Destruction of the Prefusion Spike. *Cell Host Microbe.* 2020 Sep 9;28(3):445-454.e6. doi: 10.1016/j.chom.2020.06.010.
- 15) Song R, Han B, Song M, Wang L, Conlon CP, **Dong T**, Tian D, Zhang W, Chen Z, Zhang F, Shi M, Li X. Clinical and epidemiological features of COVID-19 family clusters in Beijing, China. *J Infect.* 2020 Aug. 81(2):e26-e30. doi: 10.1016/j.jinf.2020.04.018.
- 16) Miao X, Luo Y, Huang X, Lee S, Yuan Z, Tang Y, Chen L, Wang C, Jiang W, Gao W, Song X, Yan Y, Pang T, Zou Y, Fu W, Wan L, Gilbert-Jaramillo J, Knight M, Tan T, **Rijal P**, **Townsend A**, Sun J, Liu X, James W, Tsun A, Xu Y. A novel biparatopic hybrid antibody-ACE2 fusion that blocks SARS-CoV-2 infection: implications for therapy. *Mabs.* 2020 Aug;12(1):1804241. doi: 10.1080/19420862.2020.1804241.
- 17) Zhao Y., Qin L., Zhang P., Li K., Liang L., Sun J., Xu B., Dai Y., Li X., Zhang C., **Peng Y.**, Feng Y., Li A., Hu Z., Xiang H., **Ogg G.**, **Ho L-P.**, **McMichael AJ.**, Jin R., Knight JC., **Dong T***, **Zhang Y***. Longitudinal COVID-19 profiling associates IL-1Ra and IL-10 with disease

severity and RANTES with mild disease. [JCI Insight](#). 2020 Jul 9;e139834. doi: 10.1172/jci.insight.139834.

- 18) **Zhang Y.**, Qin L., Zhao Y., Zhang P., Xu B., Li K., Liang L., Zhang C., Dai Y., Feng Y., Sun J., Hu Z., Xiang H., **Knight JC.**, **Dong T***, Jin R*. Interferon-Induced Transmembrane Protein 3 Genetic Variant rs12252-C Associated With Disease Severity in Coronavirus Disease 2019. [J Infect Dis](#). 2020 Jul 1, 222(1): 34–37. doi: 10.1093/infdis/jiaa224.
- 19) Zhang C, Qin L, Li K., Wang Q., Zhao Y, Xu B, Liang L, Dai Y, Feng M, Sun J, Li X, Hu Z, Xiang H, **Dong T**, Jin R*, Zhang Y*. A novel scoring system for prediction of disease severity in COVID-19. [Front. Cell. Infect Microbiol](#). 2020 Jun 5;10:318. doi: 10.3389/fcimb.2020.00318.
- 20) **Abd Hamid M #, Yao X**, Waugh C, Rosendo-Machado S., Li C, Rostron T, Frankland J, **Peng Y, Dong T***. Defective Interferon Gamma Production by Tumor-Specific CD8+ T Cells Is Associated With 5' Methylcytosine-Guanine Hypermethylation of Interferon Gamma Promoter. [Front Immunol](#). 2020 Mar 5;11:310. doi: 10.3389/fimmu.2020.00310.
- 21) **Abd Hamid M #**, Colin-York H, Khalid-Alham N, Browne M, Cerundolo L, Chen J-L, **Yao X**, Rosendo-Machado S, Waugh C, Maldonado-Perez D, Bowes E, Verrill C, **Cerundolo V**, Conlon CP, Fritzsche M, **Peng Y, Dong T**. Self-Maintaining CD103+ Cancer-Specific T Cells Are Highly Energetic with Rapid Cytotoxic and Effector Responses. [Cancer Immunol Res](#). 2020 Feb;8(2):203-216. doi: 10.1158/2326-6066.CIR-19-0554.
- 22) **Rijal P#, Wang B#**, Tan TK, Schimanski L , Janesch P, **Dong T** , McCauley JW, Daniels RS, **Townsend AR***, Huang KA*. Broadly Inhibiting Antineuraminidase Monoclonal Antibodies Induced by Trivalent Influenza Vaccine and H7N9 Infection in Humans. [J Virol](#). 2020 Jan 31;94(4):e01182-19. doi: 10.1128/JVI.01182-19.

COI affiliated Publications–Preprints

- 1) Huang KA*, **Tan TK**, Chen T, Huang C, Harvey R, ... McCauley, **Rijal P, Townsend AR***. Plasmablast-derived antibody response to acute SARS-CoV-2 infection in humans. bioRxiv 2020.08.28.267526; doi: <https://doi.org/10.1101/2020.08.28.267526>. ([Nature Microbiology](#), under review)
- 2) **Alain Townsend[#]**, **Pramila Rijal**, Julie Xiao, Tiong Kit Tan, Kuan-Ying A Huang, **Lisa Schimanski**, et al. A haemagglutination test for rapid detection of antibodies to SARS-CoV-2. [bioRxiv](#) 2020. <https://doi.org/10.1101/2020.10.02.20205831>

- 3) Carrique L[#], **Duyvesteyn HM[#]**, Malinauskas T, Zhao Y, Ren J, Zhou D, Walter TS, Radecke J, Huo J, Ruza RR, Shah PN, Fry EE, Stuart DI. The SARS-CoV-2 Spike harbours a lipid binding pocket which modulates stability of the prefusion trimer. *bioRxiv* 2020.08.13.249177; doi: <https://doi.org/10.1101/2020.08.13.249177>.