



### MESSAGE FROM YOUR MIMM CHAIRS

This is our last newsletter of 2020, a year that many of us are probably happy to see come to an end. We have all navigated significant challenges during this period and have earned a well-deserved rest during the holidays. We hope you all have the opportunity to relax and unwind. And if the university's proposed extended holiday break gets approved, we may have a little bit longer to recharge. Stay tuned for news on that. With several hopeful vaccine candidates on the horizon, we can see some light at the end of

### PUBLICATIONS

[Chen Y, Le Mauff F, Wang Y, Lu R, Sheppard DC, Lu L, Zhang S. The Transcription Factor SomA Synchronously Regulates Biofilm Formation and Cell Wall Homeostasis in \*Aspergillus fumigatus\*. mBio. 2020 Nov 10;11\(6\):e02329-20. doi: 10.1128/mBio.02329-20. PMID: 33173002; PMCID: PMC7667024.](#)

[Endam LM, Alromaih S, Gonzalez E, Madrenas J, Cousineau B, Renteria AE, Desrosiers M. Intranasal Application of \*Lactococcus lactis\* W136 Is Safe in Chronic Rhinosinusitis Patients With Previous Sinus Surgery. Front Cell Infect Microbiol. 2020 Oct 12;10:440. doi: 10.3389/fcimb.2020.00440. PMID: 33154953; PMCID: PMC7586919.](#)

[Beaudoin-Bussi res G, Laumaea A, Anand SP, Pr vost J, Gasser R, Goyette G, Medjahed H, Perreault J, Tremblay T, Lewin A, Gokool L, Morrisseau C, B gin P, Tremblay C, Martel-Laferr re V, Kaufmann DE, Richard J, Bazin R, Finzi A. Decline of Humoral Responses against SARS-CoV-2 Spike in Convalescent Individuals. mBio. 2020 Oct 16;11\(5\):e02590-20. doi: 10.1128/mBio.02590-20. PMID: 33067385; PMCID: PMC7569150.](#)

the tunnel. Hooray for immunology!

This also suggests that the upcoming holiday period will be the one-and-only “COVID Christmas” without a vaccine. We will need to be mindful of keeping our bubbles small to protect our loved ones and to minimize the chances of creating a tsunami of cases in early 2021. Or as they say in Quebec, “lâchez pas la patate”. We wish you and your loved ones a restful holiday season and look forward to seeing you in the new year.

Don and Sam



### World Antimicrobial Awareness Week - Nov 18-24 2020

To mark the World Antimicrobial Awareness Week taking place this year on November 18th-24th, the Antimicrobial Resistance (AMR) Centre and the Department of Microbiology and Immunology (MIMM) at McGill launched a student video competition to raise awareness on antimicrobial resistance. Undergraduate students from across different departments at McGill were invited to create and submit a short video, with the best ones voted by students and a panel of faculty. You are invited to view all of these fun

[LaRoche-Johnston F, Bosan R, Cousineau B. Group II introns generate functional chimeric relaxase enzymes with modified specificities through exon shuffling at both the RNA and DNA level. Mol Biol Evol. 2020 Oct 28;msaa275. doi: 10.1093/molbev/msaa275. Epub ahead of print. PMID: 33118013.](#)

[Martins D, McKay G, English AM, Nguyen D. Sublethal paraquat confers multidrug tolerance in Pseudomonas aeruginosa by inducing superoxide dismutase activity and lowering envelope permeability. Frontiers Microbiology. 2020 Sept 25; 11:576708](#)

[Meziane O, Salahuddin S, Pham TNQ, Farnos O, Pagliuzza A, Olivenstein R, Thomson E, Alexandrova Y, Orlova M, Schurr E, Ancuta P, Haddad É, Chomont N, Cohen EA, Jenabian MA, Costiniuk CT. HIV Infection and Persistence in Pulmonary Mucosal Double Negative T Cells \*In Vivo\*. J Virol. 2020 Nov 23;94\(24\):e01788-20. doi: 10.1128/JVI.01788-20. PMID: 32967958.](#)



Dr. James Coulton published in Nature

How does an MIMM retired professor publish in a *Nature* journal? When James Coulton, member of our department from 1979-2016, left the Lyman Duff building, Christian

videos [here](#).

The winners of the best video are Claire Hunter and Wimmy Miller for their [Let's \(Tik\)Tok About AMR! video](#)

### MSc & PhD graduations

Congratulations to:

#### **MSc:**

Orsolya Lapohos

#### **PhD:**

Jelanie Clarke  
Marilena Gentile  
Ryan Party



### Cooking with Staph

MISA's latest initiative: introducing a live cooking class where MIMM faculty members put on their chef's hat and share their best recipes. This time Dr. Jesse Shapiro was the second to show off his cooking skills last Friday by preparing a healthy Kale and Chickpea Salad. [Click here for the recipe.](#)

### Mathematics and Statistics of Genomic Epidemiology workshop

from Jesse Shapiro:

I co-organized a virtual workshop on Mathematics and Statistics of Genomic Epidemiology, and all the talks are freely available to watch online. This might be of some

Baron, past chair of the Département de biochimie, Université de Montréal invited him to join his research group. James worked for three-years (2017-2019) as Professeur associé in the Baron lab, 4-days a week to maximize production of mg amounts of highly purified membrane proteins complexes. Dr Coulton hand-delivered these samples to Justin Deme (PhD MIMM '14) at Oxford, who performed cryo-electron microscopy to reveal, at the atomic level, the structure of membrane complexes that rotate bacterial flagella. These studies demonstrated common architectural features of these complexes with other essential proton-pumping nano-machines, including the TonB system. With this paper, his 50-year research career has come full-circle – as James' first publication as a PhD student was titled *Cell envelope associations of bacterial flagella*.

Although there are no more experiments in the lab, Dr Coulton continues to serve the academic community as chair of the Retiree Affairs Committee, McGill Association of University Teachers.

[Structures of the stator complex that drives rotation of the bacterial flagellum. Deme JC, Johnson S, Vickery O, Aron A, Monkhouse H, Griffiths T, James RH, Berks BC, Coulton JW, Stansfeld PJ, Lea SM. Nat Microbiol. 2020 Dec;5\(12\):1553-](#)

interest to members of the department:  
<http://www.birs.ca/events/2020/5-day-workshops/20w5222>

1564. doi: [10.1038/s41564-020-0788-8](https://doi.org/10.1038/s41564-020-0788-8). Epub 2020 Sep 14. PMID: [32929189](https://pubmed.ncbi.nlm.nih.gov/32929189/)

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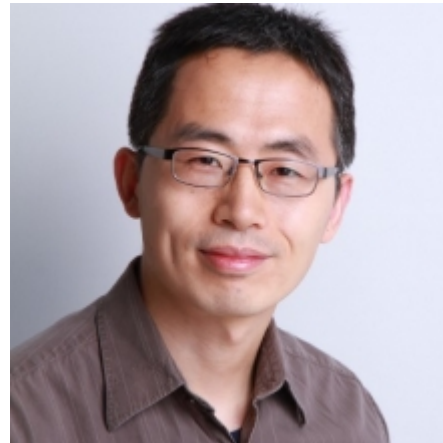
### **PUBLICATIONS CONT...**

[Moradinejad S](#), [Trigui H](#), [Guerra Maldonado JF](#), [Shapiro J](#), [Terrat Y](#), [Zamyadi A](#), [Dorner S](#), [Prévost M](#). [Diversity Assessment of Toxic Cyanobacterial Blooms during Oxidation. Toxins \(Basel\).](#) 2020 Nov 20;12(11):E728. doi: [10.3390/toxins12110728](https://doi.org/10.3390/toxins12110728). PMID: [33233813](https://pubmed.ncbi.nlm.nih.gov/33233813/).

[Valiei A](#), [Lin N](#), [Bryche JF](#), [McKay G\\*](#), [Canva M](#), [Charette PG](#), [Nguyen D](#), [Moraes C](#), [Tufenkji N](#). [Hydrophilic Mechano-Bactericidal Nanopillars Require External Forces to Rapidly Kill Bacteria. Nano Lett.](#) 2020 Aug 12;20(8):5720-5727.

[Xia Y](#), [Greenwald ZR](#), [Milwid RM](#), [Trottier C](#), [Boissonnault M](#), [Gaul N](#), [Charest L](#), [Landry G](#), [N Zahedi N](#), [Szabo J](#), [Thomas R](#), [Maheu-Giroux M](#). [Pre-exposure Prophylaxis Uptake Among Men Who Have Sex With Men Who Used nPEP: A Longitudinal Analysis of Attendees at a Large Sexual Health Clinic in Montréal \(Canada\). J Acquir Immune Defic Syndr.](#) 2020 Dec 1;85(4):408-415. doi: [10.1097/QAI.0000000000002472](https://doi.org/10.1097/QAI.0000000000002472). PMID: [33136737](https://pubmed.ncbi.nlm.nih.gov/33136737/).

[Zhong MC](#), [Lu Y](#), [Qian J](#), [Zhu Y](#), [Dong L](#), [Zahn A](#), [Di Noia JM](#), [Karo-Atar D](#), [King JL](#), [Veillette A](#). [SLAM family receptors control pro-survival effectors in germinal center B cells to promote humoral immunity. J Exp](#)

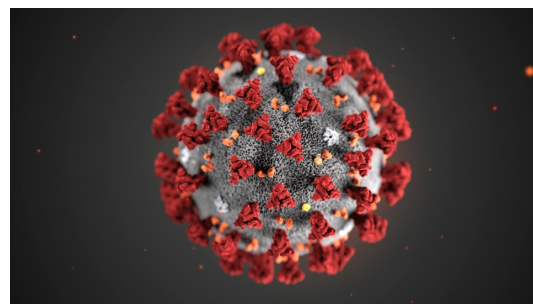


Dr. Jianguo (Jeff) Xia named to Highly Cited Researchers 2020 List.

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The annual [Highly Cited Researchers](#) list from Clarivate Analytics was released on November 18 2020 and 13 of McGill's most influential academics have made the cut. Dr. [Jianguo \(Jeff\) Xia](#), Assistant professor in Parasitology and MIMM Associate member, was one of them!

[Read more.](#)

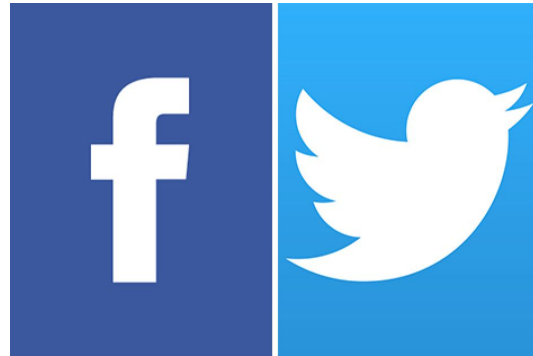


Stay updated on the latest COVID-19 news by visiting the [McGill COVID-19 page](#).



[Med. 2021 Mar 1;218\(3\):e20200756. doi:  
10.1084/jem.20200756. PMID: 33237304.](#)

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