

Citation for published version

Corbera, E. [Esteve], Anguelovski, I. [Isabelle], Honey-Roses, J. [Jordi] & Ruiz-Mallen, I. [Isabel] (2020). Academia in the Time of COVID-19: Towards an Ethics of Care. *Planning, Theory & Practice*, 21(2), 191-199. doi: 10.1080/14649357.2020.1757891

DOI

<https://doi.org/10.1080/14649357.2020.1757891>

Handle

<http://hdl.handle.net/10609/150380>

Document Version

This is the Accepted Manuscript version.

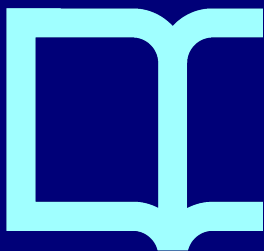
The version published on the UOC's O2 Repository may differ from the final published version.

Copyright and Reuse

This manuscript version is made available under the terms of the Creative Commons Attribution Non Commercial license (CC-BY-NC) <http://creativecommons.org/licenses/by-nc/4.0/>, which allows others to reuse it non-commercially, as long as they credit you but without having to license their new creations under the same terms.

Enquiries

If you believe this document infringes copyright, please contact the UOC's O2 Repository administrators: repositori@uoc.edu



Academia in the time of Covid-19: Towards an ethics of care

Esteve Corbera

Institute of Environmental Science and Technology, Universitat Autònoma de Barcelona (ICTA-UAB).

Address: Z Building, UAB Campus, 08193 Bellaterra, Barcelona, Spain.

Email: esteve.corbera@uab.cat ORCID: 0000-0001-7970-4411

Isabelle Anguelovski

Institute of Environmental Science and Technology, Universitat Autònoma de Barcelona (ICTA-UAB), & Institució Catalana de Recerca i Estudis Avançats (ICREA).

Address: Z Building, UAB Campus, 08193 Bellaterra, Barcelona, Spain.

Email: isabelle.anguelovski@uab.cat ORCID: 0000-0002-6409-5155

Jordi Honey-Rosés

School of Community and Regional Planning, University of British Columbia.

Address: 1933 West Mall, Vancouver, BC V6T 1Z2 Canada. 604 822 0107.

Email: jhoney@mail.ubc.ca ORCID: 0000-0003-0097-1811

Isabel Ruiz-Mallén

Internet Interdisciplinary Institute (IN3), Universitat Oberta de Catalunya, Av Carl Friedrich Gauss 5, 08860 Castelldefels, Barcelona, Spain.

Email: iruiz_mallen@uoc.edu ORCID: 0000-0002-9679-3329

This article has been endorsed by the signatories included in the Appendix. You can add your name here (<https://tinyurl.com/t7t8399>) until May 31st, 2020, after which the Appendix list will be updated and closed.

COVID-19 is having dramatic consequences for millions of people's work-life balance, and academics are no exception. These are transformative times, and we do not say this glibly. We are living through a global pandemic of unprecedented scope, scale and impact. Unprecedented in the speed at which it has travelled across the globe, the number of people affected or dead and the long-term consequences on work, education, social relations, the economy and the environment. As of April, 8, 2020, COVID-19 has infected 1.4 million and killed 80,000 people globally (John Hopkins University, 2020). No economic and social sector will go unscathed, and each of us will need to learn new ways to operate, function, and communicate.

In this article we reflect on what the COVID-19 crisis means for us and how it could affect academia more generally. We hope to encourage thinking about how academics may transform our work ethos now and in the future. This disruptive time can become an opportunity to foster a culture of care, help us refocus on what is most important, redefine excellence in teaching and research, and in doing so make academic practice more respectful and sustainable. We argue that some of these aims may be practiced now during confinement, while others might be fully realized once the pandemic has passed – or at least rescinded.

Embrace an ethics of care

We, as co-authors, are writing aware of our privileged circumstances. We are in good health and our families are well. While we are currently confined in small apartments in the densely populated Barcelona, we are in the company of our children, we have windows and balconies from which we can breathe cleaner air and admire the empty and quiet streets. The reduction in air and noise pollution is noticeable, and we have read stories that our city is already

rewilding, and learned of massive reductions in greenhouse gas emissions – examples of transient environmental benefits from this global pandemic (European Space Agency, 2020; RFI, 2020; Carbon Brief, 2020). As mid-career academics with consolidated (or almost) positions or tenure, we can fairly assume that our jobs are not at stake, while, in contrast, those academics without tenure and many friends and relatives outside academia have either lost their jobs or are struggling to keep afloat. The lockdown measures adopted by most countries worldwide are already translating in high unemployment rates (International Labour Organization, 2020), and higher poverty and social inequalities.

From our current position, our confinement has led us to think about what we can do to foster an ethics of care in our profession. The pandemic has arrived amidst a growing call for engaged scholars to resist the neo-liberalization of universities and advocating for a feminist academia (Berg and Seeber, 2016; Cardel et al., 2020; Caretta and Faria, 2020). We have been persuaded by the argument that academic praxis should value forms of performance and productivity that enhance wellbeing and care together with solidarity and pluralism which are threatened by individualism and current imposed norms and practices. Our passion as scientists and teachers often make us ignore the high costs of pursuing “excellence” (Lashuel, 2020). We aim to resist excellence at all costs, or at least the excellence defined by our evaluators and funders. We of course believe in the scientific method and in academic rigor, but propose to focus here on other – often overlooked – aspects of our profession.

The pandemic has made it clear that we must become more attentive to the diverse and at times conflicting emotions and life experiences of our students, PhD candidates, co-authors, and colleagues. Everyone is feeling great uncertainty, and at present, they may be sick or have a relative infected by COVID-19 or loved ones who have passed away. Now more than

ever, we need to be flexible with our professional commitments. For example, when considering the issue of student thesis development and submission, some of us are setting on-line supervision meetings while confinement lasts, to co-design with students the best strategies to ensure a healthy and effective work-life balance and support them in rethinking hopes, expectations, and deadlines. As far as our own research projects are concerned, confinement may be an opportunity to focus with fewer distractions on data analysis and writing. However, to believe that the latter is the case for most people would be contrary to the ethics of care that we need.

In fact, we see inherent inequities in confinement. It would be wrong to assume that all researchers have a suitable, safe, and supportive home-working environment, and we recognize that economic status, gender, or race may influence how confinement is experienced and lived. For example, young students and PhD candidates often live in small or shared houses and may need to re-define schedules and work-spaces. Others often have poor internet connection, resulting in limited access to scientific knowledge online. How can we expect quality reflection or analysis from someone confined in a single bedroom, or who has had to change drastically her life and study routines? Furthermore, some female students and researchers may see their labor burden at home increase as a result of care-based activities. Other gender impacts are expected, as a recent study just outlined. (Alon et al., 2020). And what can we expect from students who are currently losing their jobs and finding themselves in precarious financial conditions?

Even more senior students and researchers are juggling. How can those with children who require regular attention or homeschooling be expected to continue with their research normally, and teach online, write creatively, supervise and continue to perform administrative

tasks while performing all other household chores? Even if the household conditions were more “favorable”, could someone be expected to conduct business-as-usual in the wake of a global pandemic and maintain the same pace of productivity and engagement with our job duties? We think this may be difficult, if not impossible -and even undesirable- in the context of a crisis of major dimensions and ramifications, and it may be counter-productive to maintain these expectations.

Re-organize tasks and priorities

We have not chosen confinement, but we can choose how to adapt and respond. Inevitably, there will be items on our to-do list that will not get done. We should not feel guilty about this. Some projects may involve a time investment that we currently do not have, or they may potentially have unbearable consequences for others. For example, it may not make sense to hold online meetings to start up new research or departmental initiatives, involving other people and institutions as if things were operating normally. This may be unnecessarily stressful, since we cannot know a priori if some of the invitees may face difficult circumstances as a result of COVID-19 but may not feel empowered to disclose such circumstances.

Confinement can thus help us to re-organize our priorities, now and in the future. We advocate for prioritizing collective rather than individual goals, whilst remaining accountable to our universities and scientifically responsive. This means paying increased attention to teaching, mentoring and supporting students; (re-)designing research projects in ways that are more socially meaningful, environmentally sustainable and less stressful for those involved; and contributing to institutional initiatives aimed at fostering collegiality and collective

support. This should also involve prioritizing tasks where we can really make a difference, writing less but better, avoiding as much as possible a hectic race for new projects and articles, and engaging more seriously with knowledge transfer to civil society and policy change activities.

Where relevant and possible, we should consider contributing to address the societal challenges brought about by the COVID-19 pandemic. Many academics are currently centered on supporting the daily clinical, public health, and research needs linked to the crisis, and others may contribute through related scientific research or teaching and public outreach activities (e.g. blogs, TV and radio appearances, op-ed articles, student-led debates, etc.). Ideally, the pandemic should also help visibilize (and encourage to confront) the financial precarity that affects most junior researchers and science more generally and dignify academic work in our role as scientists and teachers. This reflection also applies, of course, to other professional collectives that have been traditionally undervalued in our societies, such as nurses, social workers, or farmers. The pandemic should also lead to more permanent interactions between academic and policy-making communities to respond more effectively to other risks we currently confront, such as global climate change, biodiversity loss, pollution, and rising economic and social inequalities, to name a few.

Assess the role and values of online teaching

Many academics who teach in mainstream universities have been asked to adjust to online teaching in a matter of days throughout the world. Based on what we have seen here in Spain, this is being done rather satisfactorily, with students being grateful, responsive and participatory. We know that online teaching worldwide, and Massive Open Online Courses in

particular, has a great potential to democratize knowledge, by reaching people from different ages or socio-economic backgrounds, and can result in very positive, knowledge-sharing experiences (Brouns et al., 2016). However, what we have seen is that moving face-to-face teaching online is not e-learning but remote learning with some technology tools being made available but without all the resources, methodologies and necessary training. We hope that the “discovery” of online teaching by mainstream universities as a result of the pandemic does not become an excuse to eliminate long-term teaching positions nor to replace instructors with virtual teaching tools. We also hope that this temporary move to remote teaching may help us all appreciate the classroom more and appreciate our social and intellectual physical interactions when we return.

Furthermore, in this rush towards remote teaching, we should not forget that, as highlighted earlier, students also have families and friends who may be falling sick or struggling with their jobs and lives. It is thus important to make sure that participants in online classes have the chance to express their thoughts about the crisis and urge those who are struggling to contact their lecturers in private in order to find more flexible ways to learn and engage with the syllabus. Without forcing it and while considering each field, it may also be useful to make our teaching content relevant to the current crisis, and to ask students to reflect on existing connections between COVID-19 and the studied issue at hand, as some researchers have already done in blogs and other media outlets (Adams, 2020; Wong, 2020). We also need to ensure we reach out to students who do not have stable internet connections or decent working spaces at home for logistical or financial reasons, and remember that many students in poor countries - but not only - may not have access to the necessary computer and network facilities, such as high-speed internet, to fully participate in online teaching. One of the most

acute risks of online teaching would be to reproduce and deepen inequities in educational opportunities more broadly (Lederman, 2020; The New York Times, 2020).

Adjust peer evaluations and research goals

We welcome the adjustments observed in the academic sector to minimize the impact of the pandemic on our working conditions since confinement started. Some universities such as the University of British Columbia, Universitat Oberta de Catalunya, Syracuse University, or Vanderbilt University have extended tenure clocks or staff evaluations. Many funders such as the EU, through its H2020 funding program, have extended open research calls, and principal investigators have canceled or postponed project meetings until further notice. Some journal boards, such as Antipode's or IJURR, have stopped processing and peer-reviewing new article submissions as a rejection of "academic normalcy" whilst the pandemic lasts, while others have slowed down their activity to reduce the labor burden of their editorial board members. These academic outlets, however, should take into account the effect that their reduced activity may have on early career scholars, and may want to prioritize the review of their papers swiftly during and after the confinement period. Overall, these efforts demonstrate that the institutional context and administrative responses can and should make a huge difference in facilitating the work culture that we need during confinement.

Our research practice will also need adjustment during and after the COVID-19 pandemic. Without being able to conduct fieldwork or having access to labs during confinement, we may need to re-schedule activities under a great degree of uncertainty. In our case, we supervise research projects where most data collection takes place in countries where the impact of the virus on the population and the social and political responses to COVID-19 are

still unknown. We cannot yet imagine when we will be able to start or continue with data collection and fieldwork. This will have a major impact on the development of PhD dissertations and other research collaborations in place, as well as on the ability of many to advance their careers with new data and discoveries (Corlett et al., 2020). In some cases, such uncertainty could be turned into an opportunity to re-think the research goals and turn to secondary data collection and analysis strategies or to identifying unexploited primary datasets that can be shared between colleagues to help Masters or PhD students. Though this is far from ideal, it is one that might be worth exploring and which may also result in novel knowledge and lesser environmental impacts.

We are aware that re-adjusting research questions and methodological focus is probably not the most challenging issue we face. From a human perspective, the key is and will be to encourage a collective movement that persuades funders about the need to be flexible with project completion windows and budgetary justifications. For example, if data collection has been or will be delayed as a result of COVID-19, we cannot ask our research teams to deliver outputs faster in the future; we should avoid inflicting psychological harm and stress to ourselves and our research teams when catching up with pending work after confinement ends, and as it slowly ends (Corbera, 2020). Reflecting ongoing conversations in academia, evaluators and funders should also change their practice in the future, by avoiding an over-emphasis on quantitative measures to assess academic quality, such as number of publications, impact factors, citation indexes, and performance in hyper competitive funding calls, to focus also on teaching quality indicators, knowledge transfer and translation activities, and community and/or policy outreach, when field relevant.

As highlighted earlier, one of the few positive outcomes of a global pandemic is the environmental benefits resulting from reduced economic and social activity. In a post-COVID-19 world, as academics, we should become more committed to reduce our environmental impacts. During confinement, we can experiment with lower-carbon impacts modes of research, mobility, or dissemination and apply these when confinement ends. We can reduce the number of face-to-face meetings, workshops, conferences and project activities we participate in, as well as implement new forms of data collection and analysis that result in lower environmental impact, and in doing so realize a more climate and environmentally friendly academia (Hagedorn et al., 2019).

Rethink academia after Covid-19

This ongoing global pandemic reminds us of the often-forgotten co-evolution of humans and nature or, in other words, that we are part of and not separate from nature. It also suggests that we should extend our ethics of care to non-humans, including other animal species and ecosystems. This is crucial to reduce the likelihood of future pandemics that result from the ever-closer contact between humans and other species due to urbanization and expanding intensive farming, or from processes of environmental change resulting in the spread or emergence of certain illnesses, as natural scientists have already started to argue (Dhingra et al., 2018; Vidal, 2020; Yang et al., 2020).

As academics, our confinement has led us to reflect on the directions that academic practice could take during this unusual time, so as to avoid embracing the trap of neoliberal scholarship, and how it would be desirable to act after the pandemic. In Table 1, we have summarized how we can move in this direction. We may like to shift expectations about our

work, the way we communicate with each other, and re-think what it means to be an engaged scholar, including the social-psychological, political, and environmental implications of academic activities and our value systems. When the COVID-19 crisis fades away, which it will, we have a chance to make academia a more ethical, empathetic, individually and socially, and thus rewarding profession.

Table 1: Guidelines for renewed academic practice during and post crisis

What	How	Who
Tasks and priorities	Prioritize personal and collective wellbeing over “productivity” focused tasks, recognize the diversity of needs, experiences, and vulnerabilities during the crisis, and question overall “rat race” practices.	Faculty, Administrators
Inequalities	Reflect on how the COVID-19 crisis is widening gender, ethnic, and class inequalities and acknowledge them openly and collectively. Act upon inequalities in academic institutional environments through additional recognition of and funding and technical support to vulnerable groups at all academic levels.	All members of the academic community
Emergency support	Redirect funding originally earmarked for non-essential travel and other non-core costs to cover student, postdoctoral, and adjunct faculty emergencies and other practices focusing on well-being and direct support to more vulnerable groups.	Administrators and Faculty
Remote tele-working	During the crisis, organize meetings that focus on care and support in addition to “business-focused” meetings. After the crisis, increase use of tele-working and tele-conferencing options when logistically feasible, while respecting participants’ constraints (parent care, child care). Aim for a parsimonious and efficient academic task management and avoid the over-scheduling of tele-conferences.	University administrators and Faculty
Remote teaching	During the crisis, consider the many differences and inequalities among students and teachers in their ability	Administrators and Instructors

	to participate in remote teaching and learning, and adjust participation and evaluation criteria accordingly. After the crisis, carefully weigh in the strengths and limitations of increased remote teaching for different fields and courses.	
Research practices	Establish new practices for data collection and dataset sharing as well as overall collaborative research and writing. Consider and minimize environmental impacts.	All Researchers
Dissemination	Consider moving yearly conferences and workshops to smaller online meetings every two years in order to cut on carbon emissions and allow for greater participation of low-income or/and geographically remote participants. Those online conferences/workshops could be spread through the year.	Faculty, Administrators, and Meeting organizers
Productivity	Challenge productivity measures (i.e., number of academic papers, impact factors, citation indexes, and hypercompetitive funding) as the only priority evaluation criteria. Add (or push funders to add) evaluation criteria such as: direct support to medical or social emergency during crises; community or policy work related to social, economic, environmental, and political issues in crises; direct support to colleagues, students, and other university collectives during and in the aftermath of crises.	Administrators and Funders
Evaluation	During crisis, extend (or push to) timeline for faculty promotion, evaluation, and tenure by one year. Extend (or push to) timeline for grant eligibility or assessment criteria by one semester or one year.	Administrators and Funders
Hiring	Prioritize (or push to) the creation of long-term academic positions over short-term, adjunct faculty members and instructors. Increase pay compensations for adjunct teaching staff, including online teachers.	Administrators and Funders

Acknowledgements

The views expressed above are the authors' own, but we are grateful to the following people for insightful comments on a previous draft of this article: Ana Cañizares, Dan Brockington,

Álvaro Fernández-Llamazares, Ananya Roy, Cécile Barnaud, John Turnpenny, Bhaskar Vira, John Broderick, Casey Ryan, Patricia Balvanera, Richard Norgaard, , Antoni Verger, Federico Venturini, Benjamin Vis, Egidio Dansero, Judith Krauss, Ville Pimenoff, Elisa Oteros-Rozas, Heloise Berkowitz, Anwasha Dutta, Elisa Pasqual, Miguel Martínez, Christian Kerschner, Andrea Nightingale, Elena Górriz, Henrik Österblom, Adam Lind, Matthias vom Hau, Jessica Nel, Driss Ezzine de Blas, Bob Jickling, Jane McCarthy, Natalie Doonan, Katarzyna Kaczmarek, and Ramon Ribera-Fumaz. EC and IA also acknowledge that this work contributes to ICTA's "María de Maeztu" program for Units of Excellence (MDM-2015-0552) and IRM acknowledges the financial support of the Spanish government's Research Agency (RYC-2015-17676).

References

Adams, B., 2020. COVID-19 and Conservation. Retrieved March, 17, 2020.

<https://thinkinglikeahuman.com/2020/03/16/covid-19-and-conservation/>

Alon, T., Doepke, M., Olmstead-Rumsey, J., Tertilt, M., 2020. The impact of COVID-19 on gender inequality. The National Bureau of Economic Research. Retrieved April, 08, 2020.

http://faculty.wcas.northwestern.edu/~mdo738/research/COVID19_Gender_March_2020.pdf

Berg, M., Seeber, B., 2016. *The Slow Professor: Challenging the Culture of Speed in the Academy*, University of Toronto Press.

Brouns, F., Teixeira, A., Morgado, L., Fano, S., Fueyo, A., and Jansen, D., 2017. "Designing massive open online learning processes: the sMOOC pedagogical framework." In *Open Education: from OERs to MOOCs*. M. Jemni Kinshuk and M. Koutheair Khribi (Eds). 315-336. Springer. https://link.springer.com/chapter/10.1007/978-3-662-52925-6_16

Carbon Brief, 2020. Coronavirus temporarily reduced China's CO2 emissions by a quarter.

Retrieved April, 07, 2020. <https://www.carbonbrief.org/analysis-coronavirus-has-temporarily-reduced-chinas-co2-emissions-by-a-quarter>

Cardel et al., 2020. Turning Chutes into Ladders for Women Faculty: A Review and Roadmap for Equity in Academia, *Journal of Women's Health*, ahead of print,

<https://doi.org/10.1089/jwh.2019.8027>

Caretta, M.A, Faria, C.V., 2020. Time and Care in the “Lab” and the “Field”: Slow Mentoring and Feminist Research in Geography, *Geographical Review*, 110:1-2, 172-182,

<https://doi.org/10.1111/gere.12369>

Corbera, E., 2020, COVID-19: Confined thoughts. Retrieved March, 17, 2020.

<http://estevecorbera.com/covid-19-confined-thoughts/>

Corlett, R.T., Primack, R.B., Devictor, V., et al. 2020. Impacts of the coronavirus pandemic on biodiversity conservation, *Biological Conservation*, online.

<https://doi.org/10.1016/j.biocon.2020.108571>

Dhingra, M.S., et al. 2018. Geographical and Historical Patterns in the Emergences of Novel Highly Pathogenic Avian Influenza (HPAI) H5 and H7 Viruses in Poultry. *Frontiers in Veterinary Science*,

<https://doi.org/10.3389/fvets.2018.00084>

European Space Agency, 2020. Coronavirus lockdown leading to drop in pollution across Europe. Retrieved April, 07, 2020-

https://www.esa.int/Applications/Observing_the_Earth/Copernicus/Sentinel-5P/Coronavirus_lockdown_leading_to_drop_in_pollution_across_Europe

Hagedorn, G. et al., 2019. The concerns of the young protesters are justified: A statement by Scientists for Future concerning the protests for more climate protection. *GAIA - Ecological Perspectives for Science and Society*, 28(2), 79-87.

<https://doi.org/10.14512/gaia.28.2.3>

International Labour Organization, 2020. COVID-19 and the world of work: Impact and policy responses. Retrieved April, 07, 2020.

<https://www.ilo.org/global/topics/coronavirus/impacts-and-responses/lang--en/index.htm>

John Hopkins University, 2020. Coronavirus Resource Center. Retrieved April, 08, 2020.

<https://coronavirus.jhu.edu/map.html>

Lashuel, H.A., 2020. The busy lives of academics have hidden costs — and universities must take better care of their faculty members, *Nature*, [https://www.nature.com/articles/d41586-](https://www.nature.com/articles/d41586-020-00661-w)

[020-00661-w](https://www.nature.com/articles/d41586-020-00661-w)

Lederman, D., 2020. Will Shift to Remote Teaching Be Boon or Bane for Online Learning?

Retrieved April, 08, 2020. [https://www.insidehighered.com/digital-](https://www.insidehighered.com/digital-learning/article/2020/03/18/most-teaching-going-remote-will-help-or-hurt-online-learning)

[learning/article/2020/03/18/most-teaching-going-remote-will-help-or-hurt-online-learning](https://www.insidehighered.com/digital-learning/article/2020/03/18/most-teaching-going-remote-will-help-or-hurt-online-learning)

RFI, 2020. Wild animals wander through deserted cities under Covid-19 lockdown. Retrieved

April, 07, 2020. [http://www.rfi.fr/en/international/20200330-wild-animals-wander-through-](http://www.rfi.fr/en/international/20200330-wild-animals-wander-through-deserted-cities-under-covid-19-lockdown-ducks-paris-puma-santiago-civet-kerala)

[deserted-cities-under-covid-19-lockdown-ducks-paris-puma-santiago-civet-kerala](http://www.rfi.fr/en/international/20200330-wild-animals-wander-through-deserted-cities-under-covid-19-lockdown-ducks-paris-puma-santiago-civet-kerala)

The New York Times, 2020. Locked Out of the Virtual Classroom. Retrieved April, 08,

2020. [https://www.nytimes.com/2020/03/27/opinion/coronavirus-internet-schools-](https://www.nytimes.com/2020/03/27/opinion/coronavirus-internet-schools-learning.html)

[learning.html](https://www.nytimes.com/2020/03/27/opinion/coronavirus-internet-schools-learning.html)

Vidal, J., 2020. Destroyed Habitat Creates the Perfect Conditions for Coronavirus to Emerge.

Retrieved April, 08, 2020. [https://www.scientificamerican.com/article/destroyed-habitat-](https://www.scientificamerican.com/article/destroyed-habitat-creates-the-perfect-conditions-for-coronavirus-to-emerge/)

[creates-the-perfect-conditions-for-coronavirus-to-emerge/](https://www.scientificamerican.com/article/destroyed-habitat-creates-the-perfect-conditions-for-coronavirus-to-emerge/)

Wong, E., 2020. TB, HIV and COVID-19: urgent questions as three epidemics collide.

Retrieved March, 29, 2020. [https://theconversation.com/tb-hiv-and-covid-19-urgent-](https://theconversation.com/tb-hiv-and-covid-19-urgent-questions-as-three-epidemics-collide-134554)

[questions-as-three-epidemics-collide-134554](https://theconversation.com/tb-hiv-and-covid-19-urgent-questions-as-three-epidemics-collide-134554)

Yang, N., Liu, P., Li, W., Zhang, L., 2020. Permanently ban wildlife consumption. *Science*,

367 (6485), 1434. <https://doi.org/10.1126/science.abb1938>

