Received: 26 March 2020 | Accepted: 27 March 2020

DOI: 10.1002/bmb.21351

ARTICLE

Biochemistry and Molecular Biology Education

WILEY

Commentary: Challenges for PhD students during COVID-19 pandemic: Turning crisis into an opportunity

Duygu Aydemir[1,2] | **Nuriye N. Ulusu**[1,2]

[1]Biochemistry Department, School of Medicine, Koc University, Istanbul, Turkey

[2]Koc University Research Center for Translational Medicine (KUTTAM), Istanbul, Turkey

Correspondence
Nuriye N. Ulusu, Biochemistry Department, School of Medicine, Koc University, Rumelifeneri Yolu, Sariyer, Istanbul 34450, Turkey.
Email: nulusu@ku.edu.tr

Abstract

COVID-19 results in the suspension of life all over the world. Universities suspended their academic activities except for online courses for undergrad and grad students. However, PhD students in both biochemistry and molecular biology fields must hold their experiments at the laboratories. Even under these extreme circumstances, the academic journey of a master's or PhD student should not be stopped; on contrary, they need to use these times to improve their knowledge related to their fields. Therefore, they can turn this COVID-19 crisis into an opportunity for themselves.

KEYWORDS

biochemistry, COVID-19, molecular biology, PhD education

People all over the world have been encountered with a novel pandemic named COVID-19, causing deaths of millions of people. Numbers of infected people and deaths are increasing every day worldwide and there are no cure has been found against COVID-19. Almost every country applies restrictions and sanctions to fight against this pandemic and protect the elderly population and people with chronic diseases, since they are categorized as risk groups. Thus, the young population has to follow these restrictions and self-isolation to block spreading COVID-19.[1,2]

Universities suspended academic activities except for online education, and PhD students working at the wet lab have encountered currently with the most challenging situation. Since PhD students both in the molecular biology and biochemistry fields need to perform constitutive work at the laboratories unlike other faculties like law, economy, or computational sciences, suspension of experimental works put them in an uncertain position.[3] Data, experiments, and competition in the biological sciences are increasing every day worldwide, and to be competent scientists, each PhD student should have extraordinary performance in their fields and have abilities and skills such as creativity, hardworking, and self-discipline.[4]

COVID-19 pandemic is leading to the suspension of life worldwide, but the scientific world may be one of the most affected disciplines among other professions. However, the academic journey of PhD or master's students should not behold during this pandemic, since being a scientist is a lifelong journey.[4] During this pandemic, PhD students can use this time as an opportunity to widen their knowledge in their fields and read more papers related to their works. Maybe the most challenging situation during PhD life is keeping a balance between laboratory works and reading literature to gain knowledge about scientific developments.[5]

In conclusion, the COVID-19 pandemic may suspend our experimental works, but we should not let this situation hold our academic carrier. This time can be managed effectively by reading literature, designing new experiments, writing and analyzing data of previous experiments, writing papers, and widening our scientific horizons in our fields. Thus, we can turn this COVID-19 crisis into an opportunity for ourselves in terms of our academic carrier.

 © 2020 International Union of Biochemistry and Molecular Biology

ACKNOWLEDGMENTS

The authors gratefully acknowledge the use of the services and facilities of the Koç University Research Center for Translational Medicine (KUTTAM), funded by the Presidency of Turkey, Presidency of Strategy and Budget. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Presidency of Strategy and Budget.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

ORCID

Duygu Aydemir https://orcid.org/0000-0002-6449-2708
Nuriye N. Ulusu https://orcid.org/0000-0002-3173-1389

REFERENCES

1. Carlos WG, Dela Cruz CS, Cao B, Pasnick S, Jamil S. Novel Wuhan (2019-nCoV) coronavirus. Am J Respir Crit Care Med. 2020;15:7–8. https://doi.org/10.1164/rccm.2014P7.
2. Velavan TP, Meyer CG. The Covid-19 epidemic. Trop Med Int Health. 2020;25:278–280. https://doi.org/10.1111/tmi.13383.
3. Aydemir D, Ulusu NN. Identifying and solving scientific problems in the medicine: Key to become a competent scientist. Turk J Biochem. 2020. https://doi.org/10.1515/tjb-2018-0357.
4. Offerdahl EG, Momsen JL, Osgood M. Commentary: PhDs in biochemistry education-5 years later. Biochem Mol Biol Educ. 2014;42:103–105. https://doi.org/10.1002/bmb.20768.
5. Marino J, Stefan MI, Blackford S. Ten simple rules for finishing your PhD. PLoS Comput Biol. 2014;10:e1003954. https://doi.org/10.1371/journal.pcbi.1003954.

How to cite this article: Aydemir D, Ulusu NN. Commentary: Challenges for PhD students during COVID-19 pandemic: Turning crisis into an opportunity. *Biochem Mol Biol Educ*. 2020;1–2. https://doi.org/10.1002/bmb.21351