Curriculum Vitae

Rezwana Ahmed

PERSONAL INFORMATION

Citizenship: Bangladeshi
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CURRENT POSITION

Assistant Professor, January 2020-present
Department of Pharmaceutical Sciences
North South University
Bashundhara, Dhaka-1229, Bangladesh

ACADEMIC JOURNEY

- **Ph.D. in Molecular Biology** (Circadian clock and aging, screening drugs to target aged cells), 2019
  Laboratory of Gene Regulation Research
  Graduate School of Science and Technology, Nara Institute of Science and Technology (NAIST), **Japan**
  Dissertation Title: Effect of cellular senescence on circadian clock properties in primary cultured human lung fibroblasts
  Major contribution: Established the use of an *in vitro* model of aging for studying circadian clock changes in human primary lung fibroblasts, with drugs to target the senescent (aged) cells.
- **Masters in Biological Sciences**, 2015-2018
  Laboratory of Gene Regulation Research,
  Graduate School of Biological Sciences, Nara Institute of Science and Technology (NAIST), **Japan**
- **Bachelor of Pharmacy**, 2009-2013
  Department of Pharmaceutical Sciences
  North South University, Dhaka, **Bangladesh**
- **GCE A-levels**, 2009
  Academia, Dhaka, **Bangladesh**
- **Cambridge O-levels**, 2007
- S.F.X Greenherald International School, Dhaka, **Bangladesh**

P U B L I C A T I O N S

1. Kamrul-Hasan ABM, Selim S, Afsana F, Nagendra L, **Ahmed R**, Dutta D. Once-Weekly Tirzepatide Versus Once-Daily Basal Insulin in Managing Type 2 Diabetes Inadequately Controlled With Oral anti-Hyperglycemic Drugs: A Systematic Review and Meta-Analysis. Endocr Pract. 2024 Dec 11.

2. Sarker M, Chowdhury N, Bristy AT, Emran T, Karim R, **Ahmed R**, et al. Astaxanthin protects fludrocortisone acetate-induced cardiac injury by attenuating oxidative stress, fibrosis, and inflammation through TGF-β/Smad signaling pathway. Biomed Pharmacother. 2024 Dec 1;181:117703.

3. Chowdhury MMI, Kabir N, **Ahmed R**, Yokota K, Mullins R, Reza HM. Generation of monoclonal antibody against 6-Keto PGF1α and development of ELISA for its quantification in culture medium. Biochem Biophys Reports. 2024 Sep 1;39.

4. Johra FT, Hossain S, Jain P, Bristy AT, Emran T, **Ahmed R**, et al. Amelioration of CCl4-induced oxidative stress and hepatotoxicity by Ganoderma lucidum in long evans rats. Sci Rep. 2023;13(9909):1–13.

5. Bristy AT, Islam T, **Ahmed R**, Hossain J, Reza HM, Jain P. Evaluation of Total Phenolic Content, HPLC Analysis, and Antioxidant Potential of Three Local Varieties of Mushroom: A Comparative Study. Int J Food Sci. 2022;2022.

6. **Ahmed R**, Reza HM, Shinohara K, Nakahata Y. Cellular senescence and its impact on the circadian clock. J Biochem. 2021;171(5):493–500.

7. **Ahmed R**, Nakahata Y, Shinohara K, Bessho Y. Cellular Senescence Triggers Altered Circadian Clocks With a Prolonged Period and Delayed Phases. Front Neurosci. 2021;15.

8. Nuriliani A, Nakahata Y**,** **Ahmed R**, Khaidizar FD, Matsui T, Bessho Y. Over-expression of Nicotinamide phosphoribosyltransferase in mouse cells confers protective effect against oxidative and ER stress-induced premature senescence. Genes to Cells. 2020;25(8):593–602.

9. **Ahmed R**, Ashimori A, Iwamoto S, Matsui T, Nakahata Y, Bessho Y. Replicative senescent human cells possess altered circadian clocks with a prolonged period and delayed peak-time. Aging (Albany NY). 2019;11(3):950–73.

C O N F E R E N C E PROCEEDINGS

1. Yasukazu Nakahata, **Rezwana Ahmed**, Wataru Tarumi, Yasumasa Bessho, Kazuyuki Shinohara. The Influence of Proliferative Cells on the Circadian Clock Properties of Senescent Cells and vice versa. **Asia Forum on Chronobiology, Sapporo, Japan, 2024.**

2. Md Harunur Rashid, Ramisha Anan Rahman, Bushra Zaman, **Rezwana Ahmed.** Binding mechanism of 4AP in hKv1.5 channel: Molecular dynamic simulation studies. **68th BPS Annual Meeting, Philadelphia, USA**, 2024.

3. Yasukazu Nakahata, **Rezwana Ahmed**, Yasumasa, Bessho, Kazuyuki Shinohara. Cellular senescence triggers altered circadian clocks with a prolonged period and delayed phases. **The 99th Annual Meeting of the Physiological Society of Japan, Sendai, Japan,** 2022.

4. Yusra Imam, Md. Musfikur Rahman Safa, Abidur Rahman Chowdhury, Maksuratun Kifayat Monisha, Md. Zahidul Islam Zahid, Hasan Mahmud Reza, **Rezwana Ahmed.** Association of SIRT1 gene polymorphism rs3758391 with T2DM in a population of Bangladeshi origin. **The 2nd International Conference on Genomics, Nanotech, and Bioengineering-2022 (ICGNB-2022), Dhaka, Bangladesh**, 2022.

5. Musfikur Rahman Safa, **Rezwana Ahmed**, Hasan Mahmud Reza, Md. Zahidul Islam Zahid. Association of the FTO gene (rs9939609) polymorphism with Type II Diabetes in Bangladeshi population. **The 2nd International Conference on Genomics, Nanotech, and Bioengineering-2022 (ICGNB-2022), Dhaka, Bangladesh,** 2022.

6. Anika Tabassum Bristy, Tairin Islam, **Rezwana Ahmed**, Jumana Hossain, Hasan Mahmud Reza, Preeti Jain. Evaluation of total Phenolic content, HPLC analysis and antioxidant potential of three local varieties of mushroom: A Comparative Study. **The 2nd International Conference on Genomics, Nanotech, and Bioengineering-2022 (ICGNB-2022), Dhaka, Bangladesh,** 2022.

7. Nakahata Yasukazu, **Ahmed Rezwana**, Ashimori Atsushige, Shinohara Kazuyuki, Bessho Yasumasa. Replicative senescent human cells possess altered circadian clocks with a prolonged period and delayed peak-time. **The 97th Annual Meeting of the Physiological Society of Japan. Beppu, Japan**, 2020.

8. **Rezwana Ahmed**, Atsushige Ashimori, Satoshi Iwamoto, Takaaki Matsui, Yasukazu Nakahata, Yasumasa Bessho. Replicative senescent human cells possess altered circadian clocks with a prolonged period and delayed peak-time. **EBRS Congress by the European Biological Rhythms Society. Lyon, France**, 2019.

9. Nakahata Yasukazu, **Ahmed Rezwana**, Ashimori Atsushige, Bessho Yasumasa, Shinohara Kazuyuki. Effects of circadian clock properties on Aging-NAD^+ pathway. **The 70th Annual Meeting of the Physiological Society of West Japan. Miyazaki, Japan**, 2019.

10. A. Ashimori, **A. Rezwana**, Y. Nakahata, S. Iwamoto, T. Matsui, Y. Bessho. Decrease in NAD^+ causes period extension of circadian clock with aging. **Cell Symposia: Aging and Metabolism 2018**. **Sitges, Spain,** 2018.

11. **Rezwana Ahmed**, Satoshi Iwamoto, Yasukazu Nakahata, Takaaki Matsui, Yasumasa Bessho. Changes in Circadian Clock Properties of Replicative Senescent TIG-3 cells. **International Symposium on Biological Rhythms. Nagasaki, Japan**, 2018.

12. **Rezwana Ahmed**, Satoshi Iwamoto, Yasukazu Nakahata, Takaaki Matsui and Yasumasa Bessho. Changes in Circadian Clock Properties of Replicative Senescent TIG-3 cells. **25th Annual Meeting of the Japanese Society for Chronobiology. Nagasaki, Japan**, 2018

13. **Rezwana Ahmed**, Satoshi Iwamoto, Yasukazu Nakahata, Takaaki Matsui and Yasumasa Bessho. Changes in Circadian Clock Properties of Replicative Senescent TIG-3 cells. **Japan Society for Bioscience, Biotechnology, and Agrochemistry** (JSBBA) Kansai 5th Student Forum, **Nara, Japan**, 2018.

14. **Rezwana Ahmed**, Satoshi Iwamoto, Yasukazu Nakahata, Takaaki Matsui and Yasumasa Bessho. The impact of cellular senescence on circadian clock. **Japan Society for Bioscience, Biotechnology, and Agrochemistry** (JSBBA) Kansai 4th Student Forum, **Kobe, Japan**, 2017.

15. **Rezwana Ahmed**, Satoshi Iwamoto, Yasukazu Nakahata, Takaaki Matsui, Yasumasa Bessho. The impact of cellular senescence on circadian clock. **International Conference on Genomics, Nanotech and Bioengineering.** Dhaka, Bangladesh, 2017

AWARDS & HONOURS

1. Japanese Government Scholarship for Ph.D. at Nara Institute of Science and Technology, Japan. (**MONBUSHO**, 2018-2021)
2. **Most Influential presentation**, JSBBA Kansai 4th Student Forum, Kobe, Japan. (2017)
3. **Best Poster**, International Conference on Genomics, Nanotech and Bioengineering, North South University, Dhaka, Bangladesh. (2017)
4. Japanese Government Scholarship for Masters at Nara Institute of Science and Technology, Japan. (**MONBUSHO**, 2015-2018)
5. **Vice Chancellor's Gold Medal**, North South University, Dhaka, Bangladesh. (2015)
6. **Merit-based 100% tuition waiver**, North South University, Dhaka, Bangladesh. (2009-2013)
7. **Certificate of Excellence** for 3 A grades in GCE A-Level Examinations, Daily Star Awards, Dhaka, Bangladesh. (2009)
8. **Scholarship for A-level study**, Academia, Dhaka, Bangladesh. (2008)
9. **Cambridge Brilliance in Bangladesh Awards** for obtaining 7 A grades in Cambridge O-level examinations, by University of Cambridge International Examinations. (2007)

OTHER RELEVANT EXPERIENCES

- **Researcher,** April 2019-December 2019
  Physiology2 Lab
  Department of Neurobiology and Behaviour, Graduate School of Biomedical Sciences, Nagasaki University, Japan

- **Research Student**, January 2019 - February 2019
  Chiu Lab, Department of Entomology and Nematology
  University of California, Davis, USA

- **Manuscript editing of articles** (During PhD study)
  Laboratory of Gene Regulation Research
  Nara Institue of Science and Technology, Japan

- **Product Executive**, May 2014 - January 2015
  Marketing Department,
  Eskayef (Former SK + F) Pharmaceuticals Limited, Dhaka, Bangladesh

- **In-plant training**, August 2013 - September 2013
  Square Pharmaceuticals, Gazipur, Bangladesh

- **Teaching Assistant** (TA), September 2012-December 2012
  North South University,
  Dhaka, Bangladesh

PROFESSIONAL AFFILIATIONS

- European Biological Rhythms Society (EBRS)
- Australasian Chronobiology Society (ACS)
- Japanese Universities Alumni Association In Bangladesh (JUAAB)

COMMUNITY SERVICES

- Proctoring the yealy JLPT examinations conducted by the Japanese Universities Alumni Association In Bangladesh (JUAAB)
- 2019 Global Skill Up Forum organized by Nanzan Junior and Senior High School for English communication with Japanese students
- 2018 Super Science Student Program-Training basic laboratory techniques to Japanese high school students at Nara Institute of Science and Technology
- 2016 Templish English learning program for Japanese elementary school children through Japanese cultural activities

R E F E R E N C E S

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