

Alaa Elgaabari

lecturer / researcher

CONTACT INFORMATION

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EXPERIENCE

Kafrelsheikh, Egypt
Nov 2024 - Present

Lecturer
Department of Physiology Faculty of Veterinary Medicine, Kafrelsheikh University

Fukuoka, Japan
Oct 2022 - Oct 2024

Postdoctoral research fellow
Department of Animal and Marine Bioresource Sciences, Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University

Kafrelsheikh, Egypt
Sep 2016 - Nov 2024

Assistant lecturer
Department of Physiology Faculty of Veterinary Medicine, Kafrelsheikh University

Kafrelsheikh, Egypt
Jun 2013 - Sep 2016

Demonstrator
Department of Physiology Faculty of Veterinary Medicine, Kafrelsheikh University

Banha, Egypt
Nov 2012 - Jun 2013

Veterinarian
Animal Health Research Institute

EDUCATION

Fukuoka, Japan
Oct 2019 - Sep 2022

Doctor of Philosophy Ph.D
Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University

Fukuoka, Japan
Apr 2019 - Oct 2019

Research student
Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University

Kafrelsheikh, Egypt
Sep 2013 - Aug 2016

Master of veterinary science M.V.Sc
Faculty of Veterinary Medicine, Kafrelsheikh University

Kafrelsheikh, Egypt
Sep 2006 - Jun 2011

Bachelor of veterinary science B.V.Sc
Faculty of Veterinary Medicine, Kafrelsheikh University

LANGUAGES

Arabic
Native

Western blotting
Cell culture

English
Advanced

ELISA
Immunofluorescence Microscopy

German
Elementary

Cell migration
Magnetic cell sorting

Japanese
Elementary

Flow cytometry
Epigenetics

Gene expression (PCR and qPCR)
HPLC

Statistics and Data Analysis

TEACHING AND MENTORSHIP

- Lecturer, Physiology Courses:** Faculty of Veterinary Medicine, Kafrelsheikh University, Egypt (Present). Teaching physiology courses for first- and second-year veterinary medicine students.
- Teaching Assistant, Practical Physiology Courses:** Faculty of Veterinary Medicine, Kafrelsheikh University, Egypt (2013-2019). Assisted in practical course delivery and summer training programs for first- and second-year students.
- Practical Assistant:** Muscle & Meat Science Laboratory Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, Japan (2022-2024). Provided practical support in laboratory activities and research training programs for undergraduate and master's students.

SCHOLARSHIPS

- JSPS post-doctor fellowship** (standard program) at Muscle & Meat Sci. Lab., Department of Animal and Marine Bioresource Sciences, Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, Japan. From October 2022 to October 2024.
- Full Ph.D. scholarship** (Egypt-Japan Education Partnership) at Muscle & Meat Sci. Lab., Department of Animal and Marine Bioresource Sciences, Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, Japan. From October 2019 to September 2022.
- Research exchange training** (Egypt-Japan Education Partnership) at Muscle & Meat Sci. Lab., Department of Animal and Marine Bioresource Sciences, Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, Japan. From April 2019 to September 2019.

RESEARCH INTEREST

- Postnatal Muscle Growth and Regeneration:** Investigating the cellular and molecular mechanisms that regulate muscle repair, maintenance, and regeneration, including the role of muscle stem cells in muscle fiber type regulation.
- Sarcopenia and Age-Related Muscle Atrophy:** Identifying the biological factors contributing to muscle degeneration in aging populations and understanding the decline in regenerative capacity in aged muscles.
- Stem Cell Biology:** Examining the activation, quiescence, and self-renewal dynamics of muscle stem cells (satellite cells) and their critical role in maintaining muscle health.
- Post-Translational Protein Modifications:** Studying how modifications like nitration affect satellite cell function, muscle regeneration, and contribute to age-related muscle atrophy.
- Inflammatory Response in Muscle Repair:** Investigating the role of inflammation in muscle recovery and regeneration processes.
- Nutritional Influences on Muscle Development:** Understanding the impact of nutrition on muscle growth, repair, and regeneration.
- Epigenetics and Omics Approaches:** Utilizing epigenetic and omics technologies to explore muscle disorders and identify novel therapeutic targets.
- Regenerative Therapies:** Developing strategies to address muscle degeneration, stimulate muscle repair, and promote hypertrophy, with a focus on regenerative therapies for both human and veterinary clinical settings, particularly in response to aging and injury.

PUBLICATIONS

Sakiho Tanaka, [Alaa Elgaabari](#), Miyumi Seki, So Kuwakado, Kahona Zushi, Junri Miyamoto, Shoko Sawano, Wataru Mizunoya, Kenshiro Ehara, Naruha Watanabe, Yohei Ogawa, Hikaru Imakure, Reina Fujimaru, Rika Osaki, Kazuki Shitamitsu, Kaoru Mizoguchi, Tomoki Ushijima, Takahiro Maeno, Takashi Nakashima, Takahiro Suzuki, Mako Nakamura, Judy E. Anderson, Ryuichi Tatsumi. **In vitro immuno-prevention of nitration/dysfunction of myogenic stem cell activator HGF, towards developing a strategy for age-related muscle atrophy.** *Aging Cell*, 2024 <https://doi.org/10.1111/ace1.14337>

[Alaa Elgaabari](#), Nana Imatomi, Hirochika Kido, Takashi Nakashima, Shoko Okuda, Yoshitaka Manabe, Shoko Sawano, Wataru Mizunoya, Ryuki Kaneko, Sakiho Tanaka, Takahiro Maeno, Yuji Matsuyoshi, Miyumi Seki, So Kuwakado, Kahona Zushi, Nasibeh Daneshvar, Mako Nakamura, Takahiro Suzuki, Kenji Sunagawa, Judy E. Anderson, Ronald E. Allen, Ryuichi Tatsumi. **Age-related nitration/dysfunction of myogenic stem cell activator HGF.** *Aging Cell*, 2024 <https://doi.org/10.1111/ace1.14041>

- Graphical abstract was chosen for Journal Cover Vol. 23, issue 2, 2024 <https://doi.org/10.1111/ace1.14117>
- This paper was featured in several Japanese social magazines highlighting its wider impact beyond academia and showing its relevance within both scientific and societal spheres:

- "Kagakushinbun (科学新聞)", 第面, <https://sci-news.co.jp/topics/8207/>
- "Science Japan", <https://sj.jst.go.jp/news/202312/n1220-02k.html>
- "The Journal of Pharmaceutical Business", <https://iyakukeizai.com/iyakukeizaiweb/detail/178303>
- "Tii scientific life", <https://medbio.tiisys.com/119181/>
- "Scientific laboratory" <https://iib.rikelab.jp/>
- "Tokyo Metropolitan Institute of Medical Science (TMIIMS) News", <https://www.igakuen.or.jp/r-info/covid-19-info192.html#r19>

[Alaa Elgaabari](#), Nana Imatomi, Hirochika Kido, Miyumi Seki, Sakiho Tanaka, Yuji Matsuyoshi, Takashi Nakashima, Shoko Sawano, Wataru Mizunoy, Takahiro Suzuki, Mako Nakamura, Judy E. Anderson, Ryuichi Tatsumi. **A pilot study on nitration/dysfunction of NK1 segment of myogenic stem cell activator HGF.** *Biochemistry and Biophysics Reports*, 2022. <https://doi.org/10.1016/j.bbrep.2022.101295>

[Alaa Elgaabari](#), Atsuko Miyawaki-Kuwakado, Kosuke Tomimatsu, Qianmei Wu, Kosuke Tokunaga, Wakana Izumi, Takahiro Suzuki, Ryuichi Tatsumi, Mako Nakamura. **Epigenetic effects induced by the ectopic expression of Pax7 in 3T3-L1.** *The Journal of Biochemistry*, 2021. <https://doi.org/10.1093/jb/mvab030>

[Alaa Magdy Elgaabary](#), Shawky Mahmoud, Michel Fahmy Saad, Ahmed Abdel Azeez Abdel Rahman. **Potassium Permanganate Alleviates the Potential Effect of Estrogenic Pollutants on Vitellogenin Gene Expression in Male Oreochromis Niloticus.** *World's Veterinary Journal*, 2016.

CONFERENCES & PRESENTATIONS

1. 132nd Annual Meeting of the Society of Japan and Animal Science, Kyoto, Japan, September 2024, Oral Presentation

Authors: Zushi Kahona, Seki Miyumi, Sitamitsu Kazuki, [Alaa Elgaabari](#), Tanaka Sakiho, Miyamoto Junri, Sawano Shoko, Mizunoya Wataru, Suzuki Takahiro, Tatsumi Ryuichi.

2. Joint Conference of AOMC and JMS (AOMC-JMS 2024), Nara, Japan, September 2024, Oral Presentation, Young Investigator Award Session

Authors: [Alaa Elgaabari](#), Junri Miyamoto, Takahiro Maeno, Kahona Zushi, Mako Nakamura, Takahiro Suzuki, Ryuichi Tatsumi.

3. Skeletal Muscle Stem Cells in Development, Regenerations & Adaptations, Estérel, Quebec, Canada, July 2024, Poster Presentation

Authors: [Alaa Elgaabari](#), Junri Miyamoto, Takahiro Maeno, Kahona Zushi, Mako Nakamura, Takahiro Suzuki, Judy E. Anderson, Ryuichi Tatsumi.

4. 7th Autumn Meeting of the Japan Society of Rehabilitation Medicine, Miyazaki, Japan, November 2023, Poster Presentation (Best Presentation Prize)

Authors: So Kuwakado, [Alaa Elgaabari](#), Takahiro Suzuki, Kenichi Kawashima, Yasuharu Nakashima, Ryuichi Tatsumi.

5. 9th Annual Meeting of the Japan Muscle Society, Osaka, Japan, August 2023, Oral Presentation

Authors: [Alaa Elgaabari](#), Sakiho Tanaka, Kahona Zushi, So Kuwakado, Miyumi Seki, Takahiro Suzuki, Mako Nakamura, Ryuichi Tatsumi.

6. 131st Annual Meeting of the Japanese Society of Animal Science, Hokkaido, Japan, September 2023, Poster Presentation

Authors: Sakiho Tanaka, [Alaa Elgaabari](#), Miyumi Seki, So Kuwakado, Kahona Zushi, Junri Miyamoto, Shoko Sawano, Wataru Mizunoya, Kenshiro Ehara, Takahiro Maeno, Takashi Nakashima, Takahiro Suzuki, Mako Nakamura, Ryuichi Tatsumi.

7. 130th Annual Meeting of the Japanese Society of Animal Science, Tokyo University of Agriculture, Tokyo, Japan, September 2022, Poster Presentation

Authors: Miyumi Seki, [Alaa Elgaabari](#), Sakiho Tanaka, Shoko Sawano, Wataru Mizunoya, Yuji Matsuyoshi, Takahiro Suzuki, Mako Nakamura, Ryuichi Tatsumi.

8. Cell Bio Virtual 2021 (American Society for Cell Biology (ASCB) and the European Molecular Biology Organization (EMBO) Online Meeting December 2021, E-Poster Presentation

Authors: [Alaa Elgaabari](#), Nana Imatomi, Hirochika Kido, Yuji Matsuyoshi, Takashi Nakashima, Shoko Sawano, Wataru Mizunoya, Takahiro Suzuki, Mako Nakamura, Ryuichi Tatsumi.

9. 7th Annual Meeting of the Japan Muscle Society, Kyoto University, Kyoto, Japan, December 1112, 2021, Hybrid Conference:

- Insight linking between nitration and myogenic dysfunction of HGF/NK1 domain, poster presentation. Authors: [Alaa Elgaabari](#), Nana Imatomi, Hirochika Kido, Mako Nakamura, Yuji Matsuyoshi, Takashi Nakashima, Shoko Sawano, Wataru Mizunoya, Takahiro Suzuki, Mako Nakamura, Ryuichi Tatsumi.
- Nitration/dysfunction of myogenic stem cell activator HGF: age-related event predominant in fast IIX, IIXa myofiber ECM, Oral Presentation ("equal contribution). Authors: Ryuichi Tatsumi*, [Alaa Elgaabari](#)*, Nana Imatomi*, et al.
- Toward establishing quiescent/dormant myogenic stem satellite cell cultures, Poster Presentation on satellite cell culture. Authors: Kenshiro Ehara, Yuji Matsuyoshi, [Alaa Elgaabari](#), Mako Nakamura, Takahiro Suzuki, Ryuichi Tatsumi.

10. 128th Annual Meeting of the Japanese Society of Animal Science, Kyushu University, Japan, March 2021, Poster Presentation

Authors: [Alaa Elgaabari](#), Nana Imatomi, Hirochika Kido, Yuji Matsuyoshi, Takashi Nakashima, Shoko Sawano, Wataru Mizunoya, Takahiro Suzuki, Mako Nakamura, Ryuichi Tatsumi.

AWARDS

- Kafrelsheikh University Award for International Scientific Publication, 2023.
- Kafrelsheikh University Award for International Scientific Publication, 2024.
- Travel award from The Society for Muscle Biology "Skeletal Muscle Stem Cells in Development & Adaptations" conference July 2024, Quebec, Canada.

RESEARCH FOUNDATION

- JSPS research foundation for a project titled "Identification of putative genes to prevent nitration of myogenic stem cell activator HGF and sarcopenia", Japan 2023-2024. <https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-23KF0153/>
- JSPS research foundation for a project titled "Identification of the gene: Identification of nitration of age-related muscle stem cell activator HGF", Japan 2022-2023. <https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-22F22389/>
- The Ito foundation for a project titled "Breaking-through the heat stress-induced suppression of postnatal muscle growth: possible implication of nitration of myogenic stem cell activation factor HGF" (part 2), Japan, 2021.
- The Ito foundation for a project titled "Breaking-through the heat stress-induced suppression of postnatal muscle growth: possible implication of nitration of myogenic stem cell activation factor HGF" (part 1), Japan, 2020.

MEMBERSHIPS

- A member of the JSPS Alumni Association in Egypt.
- A member of the Japan Muscle Society.
- A member of KUJSA (Kyushu University Foreign Students Association from April 2019 to 2024).
- A member of The Student Committee for Internationalization of Kyushu University (SCKIkyu), from 2022 to 2024.

WORKSHOPS

- Speaker at the "How to Apply for an International Scholarship" symposium, organized by the Scholars Support Unit at my alma mater, Kafrelsheikh University, Egypt. November 25, 2024
- "Increasing Awareness and Understanding of Duchenne Muscular Dystrophy" course, hosted by NEWGIZA University, Egypt in collaboration with Myo-care Foundation. 10-13 November 2024
- Intensive reproductive and embryo biotechnologies, Graduate School of Agriculture Kyushu University, Japan, 18 May- 8 June 2022.
- Sustainable meat and food production and consumption around the World, faculty of co-creation, Kyushu University, Japan, March 2022.
- A guest speaker at the online career talk event held by International Student Supporters (Kyurious) in collaboration with the International Student Exchange Section, Faculty of Agriculture, Kyushu University, March 15, 2022.
- Joined in "Oral presentation online workshop" that was held on March 21, 2022, by Kyushu University Gender Equality Office.

ACTIVATES

Contributions to the Kyushu University Promotion and other programs:

- I was selected to make a video introducing IGP course with J-MENA (Study in Japan Global Network Project in the Middle East & North Africa) aims to double the number of students from MENA region in 5 years ahead in collaboration with the Faculty of Agriculture, Kyushu University that runs the project funded by the Japanese government. The video was published on April 11, 2022. <https://www.youtube.com/watch?v=eGeDk0a34d>
- I was selected to represent the international student voice on the official website of the Faculty of Agriculture, Kyushu University. June 2022 till now <http://www.agr.kyushu-u.ac.jp/english/lp/2022/>
- I Joined in The Tandem Learning Program which offers Kyushu University students the opportunity to enhance their language abilities and culture exchange with the help of a Tandem Partner. August 2019 to August 2020

Contributions to Social Volunteering Association:

- I was a volunteer at the Children Disaster Prevention Association in August 2022, Japan
- I was a volunteer at the Children Disaster Prevention Association from December 2023, Japan.

REFERENCES

1. Ryuichi TATSUMI, Ph.D. Professor, Muscle & Meat Sci. Lab., Department of Animal and Marine Bioresource Sciences, Graduate School of Agriculture, Kyushu University, Fukuoka, Japan.
TEL: +81 (code for Japan) 92-802-4593
Email: rtatsumi@agr.kyushu-u.ac.jp

2. Mako Nakamura, Ph.D. professor (Ms.), Faculty of Agriculture, Kyushu University Rm.460, West Zone 5, 744 Motooka Nishii-Ku, Fukuoka-City, Fukuoka 819-0395 JAPAN
TEL/FAX: +81-92-802-4761
Email: mako_n@makonakamura.net

3. Takahiro Suzuki, Ph.D. Associate Professor, Department of Natural and Biological Sciences, Faculty of Agriculture, Kyushu University, Department of Animal and Marine Biology Department Animal Chemistry Laboratory Animal Chemistry 744 Motooka, Nishi-ku, Fukuoka 819-0395, Fukuoka 5, Fukuoka, Japan,
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Email: tsuzuki@agr.kyushu-u.ac.jp