NIROSH DILSHAN ALUTHGE - Résumé

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Lincoln.
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Personal Details

Full Name : Nirosh Dilshan Aluthge
Date of Birth : 31. 05. 1984
Gender : Male

Nationality : Sri Lankan

Career Objectives

To become a leading researcher in molecular microbiological aspects of health and biotechnology as related to humans and livestock and to become an academic involved in teaching and research activities, thereby contributing to the progress of society.

Education

- **Doctor of Philosophy (Ph. D.) in Food Science and Technology (2022) – University of Nebraska-Lincoln**

- **Master of Science (M. S.) degree in Food Science and Technology (2015) – University of Nebraska-Lincoln**

- **Bachelor of Science (Special) Degree in Microbiology (26/04/2005 – 01/10/2009) University of Kelaniya –** Completed with **First Class Honours**

  Major Subject - Microbiology

Minor Subjects - Chemistry and Botany

Teaching experience

- Teaching assistant for **Advanced Ruminant Nutrition (ASCI 922) – Department of Animal Science – University of Nebraska-Lincoln** – Fall 2018
- Teaching assistant for **Food Microbiology Laboratory (FDST 806) – Department of Food Science and Technology – University of Nebraska-Lincoln** – Fall 2013
- Assistant lecturer for **Industrial Microbiology (for senior undergraduates) – Department of Microbiology, University of Kelaniya (Sri Lanka)** – 2011
- Teaching assistant for all undergraduate level microbiology laboratory classes - **Department of Microbiology, University of Kelaniya (Sri Lanka) -**2010 and 2011

Research Experience

- Doctoral dissertation research – **'Evaluation of human microbiota-associated (HMA) porcine models to study the human gastrointestinal microbiome'** (May 2015 – May 2022).
- Master's thesis research carried out at the University of Nebraska-Lincoln – **'The influence of the gut microbiota on fecal shedding of Shiga toxin-producing *Escherichia coli* (STEC) in beef cattle'.** (January 2012 to May 2015).
- Conducted a research project under the title '**Microbiological and Sensory Evaluation to Assess the Possibility of Extending the Shelf Life of Plain Set Yoghurt',** at Fonterra Brands Lanka (pvt) Ltd. and Department of Microbiology, University of Kelaniya, Sri Lanka. (September 2008 – April 2009).

Work Experience

- **Department of Animal Science, University of Nebraska-Lincoln**, August 2022 to date – **Post-Doctoral Research Associate**

- **Department of Food Science and Technology/Animal Science Department, University of Nebraska-Lincoln**, January 2012 to date – **Graduate Research Assistant**

- **Department of Microbiology, University of Kelaniya,** 01st June 2011 to September 2011 – Temporary Lecturer

- **Department of Microbiology, University of Kelaniya,** 07th December 2010 to 31st May 2011 **– Temporary Demonstrator (Teaching Assistant)**

- **Department of Microbiology, University of Kelaniya,** November 2009 to September 2010 **– Temporary Demonstrator (Teaching Assistant)**

- Internship of 3 months duration at the **Environmental Division** of the **National Building Research Organization (NBRO)**, Sri Lanka (October 2007 – January 2008)

Academic Presentations and Posters

- American Society of Animal Science (ASAS) Midwestern Section Meeting, March 2023, Madison, WI – Awardee Talk: **"Gnotobiotic porcine models to better understand gut microbiome-host interactions in human and porcine hosts" –** Oral presentation

- American Society of Animal Science (ASAS) Midwestern Section Meeting, March

2019, Omaha, NE – **"Direct comparison of human microbiota-associated (HMA) porcine and murine models"** – Oral presentation

- Symposium on Gut Health in Production Animals, November 2017, St. Louis, MO – **"Direct comparison of human microbiota-associated gnotobiotic piglet and mouse models for infant gut microbiota studies" –** Poster session

- American Society of Animal Science Joint Annual Meeting (ASAS-JAM), July 2016, Salt Lake City, UT – "**The Development of a Cecum-cannulated Gnotobiotic Piglet Model to Study the Human Gut Microbiota" –** Poster session

- Beef committee meeting, May 2014, Scottsbluff, NE – **"The effect of a direct-fed microbial (DFM) on the shedding of STEC and animal performance of feedlot steers" -** Oral presentation

- Beef committee meeting, May 2013, North Platte, NE - **"The effect of commensal microbial communities on the fecal shedding of Shiga toxin-producing *E. coli* (STEC) in beef cattle" -** Oral presentation

- American Society of Animal Science (ASAS) Midwestern Section Meeting, Des Moines, IA – **"The effect of commensal microbial communities on the fecal shedding of Shiga toxin-producing *E. coli* (STEC) in beef cattle" -** Oral presentation

- Beef committee meeting, May 2012, Lincoln, NE - **"The effect of commensal microbial communities on the fecal shedding of Shiga toxin-producing *E. coli* (STEC) in beef cattle" -** Oral presentation
- Conducted presentation under the title **'Activated sludge systems –**

Microbiological aspects', for the academic staff members of the Environmental Division, National Building Research Organization (NBRO), Sri Lanka-December 2007 - Oral presentation

Publications and abstracts

- **Aluthge, N. D.**, Tom, W. A., Bartenslager, A. C., Burkey, T. E., Miller, P. S., Heath, K. D., Kreikemeier-Bower, C., Kittana, H., Schmaltz, R. J., Ramer-Tait, A. E., Fernando, S. C. Differential longitudinal establishment of human fecal bacterial communities in germ-free porcine and murine models. *Commun. Biol* 3, 760 (2020). https://doi.org/10.1038/s42003-020-01477-0
- **Aluthge N. D.,** Van Sambeek D. M., Carney-Hinkle E. E., Li Y. S., Fernando S. C., Burkey T. E. BOARD INVITED REVIEW: The pig microbiota and the potential for harnessing the power of the microbiome to improve growth and health1. J Anim Sci. 2019 Sep 3;97(9):3741-3757. doi: 10.1093/jas/skz208. PMID: 31250899; PMCID: PMC6735911
- Starr K, Montesanto F, Perisho E, **Aluthge N**, Pegg M, Fernando SC. Gut Microbial Composition of Cyprinella lutrensis (Red Shiner) and Notropis stramineus (Sand Shiner): Insights from Wild Fish Populations. Microb Ecol. 2024 May 22;87(1):75. doi: 10.1007/s00248-024-02386-z. PMID: 38775958; PMCID: PMC11111511.
- Bartenslager, A. C., **Aluthge, N. D.**, Hille, M. M., Loy, J. D., Spangler, M. L., Fernando, S.C. Longitudinal assessment of the bovine ocular bacterial community dynamics in calves. *anim microbiome* **3,** 16 (2021). https://doi.org/10.1186/s42523-021-00079-3
- Jenkins, C. J. R., Fernando, S. C., Anderson, C. L., **Aluthge, N. D.**, Castillo-Lopez, E., Zanton, G. I., Kononoff, P. J. The effects of 2-hydroxy-4-methylthio-butanoic

acid supplementation on the rumen microbial population and duodenal flow of microbial nitrogen. *Journal of Dairy science* (2020). doi: 10.3168/jds.2019-17664

- Klein, C., Gonzalez, D., Samwel, K., Kahesa, C., Mwaiselage, J., **Aluthge, N.,** Fernando, S., West, J. T., Wood, C., Angeletti, P. C. Relationship between the Cervical Microbiome, HIV Status, and Precancerous Lesions. *MBio* (2019). doi: 10.1128/mBio.02785-18.

- Duffy E. M., Tietze S. M., Knoell, A. L., **Aluthge, N. D.,** Fernando, S. C., Schmidt, T. S., Yates, D. T., Petersen, J. L. Rumen bacterial composition in lambs is affected by beta-adrenergic agonist supplementation and heat stress at the phylum level. *Transl Anim Sci* (2018).

- Ramirez-Ramirez, H. A., Lopez, E. C., Jenkins, C. J., **Aluthge, N. D.**, Anderson, C., Fernando, S. C., Harvatine, K. J., Kononoff, P. J. (2016) Reduced-fat dried distillers grains with solubles reduces the risk of milk fat depression and supports milk production and ruminal fermentation in dairy cows. *J Dairy Sci.*

- Castillo-Lopez, E., Ramirez Ramirez, H. A., Klopfenstein, T. J., Anderson, C.L., **Aluthge, N. D.**, Fernando, S. C., Jenkins, T., Kononoff, P. J**.** (2014) Effect of feeding dried distillers grains with solubles on ruminal biohydrogenation, intestinal fatty acid profile, and gut microbial diversity evaluated through DNA pyro-sequencing. *J Anim Sci* ; 92: 733-43

- Ramirez Ramirez, H.A., C. J. R. Jenkins, S. C. Fernando, C. L. Anderson, **N. D. Aluthge**, and P. J. Kononoff. 2014. Ruminal bacterial community structure of dairy cows fed conventional and reduced-fat dried distillers grains with solubles. ***J. Dairy Sci***. 97 E-Suppl 1: 916

- **Aluthge, N. D.**, Wanniarachchi, Y.A., Erickson, G.E., Klopfensteine, T.K., Nuttleman, B.L.., Schneider, C.J., Fernando S.C. (2013). The effect of commensal microbial communities on the fecal shedding of Shiga toxin-producing *E. coli* (STEC) in beef cattle. American Society of Animal Science Midwest Meetings, Des Moines, IA (March 11-13).

- **Aluthge, N. D.**, Wanniarachchi, Y. A., Schneider, C. J., Klopfenstein, T., Erickson, G., Stratton, J., Fernando, S.C. (2012). Beef Cattle Report (2013th ed., pp. 92-93). Lincoln, NE: 2013 Beef Cattle Report.

Awards/Medals

- **Animal Science Young Scholar Award (2023)** – Award presented at the American Society for Animal Science (ASAS) Midwest Section meeting held in Madison, WI, 12-15th of March 2023.

- **First place** in the PhD category in the Arthaud graduate student oral presentation competition - Department of Animal Science, University of Nebraska-Lincoln – November 2022

- **Third place** in the PhD category in the Arthaud graduate student oral presentation competition - Department of Animal Science, University of Nebraska-Lincoln – November 2019

- Recipient of the **Milton Mohr Graduate Fellowship** – 2017

- **First prize** at the pre-conference symposium 'Gut Microbiota, Diet, and Health' poster competition - American Society of Animal Science Joint Annual Meeting (ASAS-JAM), Salt Lake City, UT – 19th July 2016

- **Sarojinie Jayawardena Memorial Gold Medal** for best performance in Microbiology (Special) Degree (2009) – Received on 01st July 2010

- **Gold medal** awarded by the **Alumni Association of the Faculty of Science, University of Kelaniya**, for best performance in the special degree programme of the Department of Microbiology for the academic year 2007/2008 – Received on 01st July 2010

Language Skills

- Fluent in **Sinhala** and **English** languages
- Completed the **Spanish language course (Beginner Level)**, at the **Bandaranaike Centre for International Studies** (BCIS), **Sri Lanka –** July 2011
- Certificate in **Tamil Language (Intermediate Level)** at the **Bandaranaike Centre for International Studies** (BCIS), **Sri Lanka –** July 2011
- Certificate in **Tamil Language (Beginner Level)**, **Bandaranaike Centre for International Studies** (BCIS), **Sri Lanka** - July 2010
- Certificate in **French Language, Department of Modern Languages** (Certificate course in French, 2-years duration), **University of Kelaniya, Sri Lanka –** October 2009

Academic/Research Interests

- Mainly interested in the fields of **Food Microbiology, Gastrointestinal Microbiology** and **Molecular Biology** and hope to pursue higher studies and research in these areas in the future.

Details of two non-related referees are given below;

Dr. D. L. Jayaratne
Senior Lecturer
Department of Microbiology
University of Kelaniya
Sri Lanka
Tel: (+94) 112903339

Dr. Samodha Fernando
Professor
Dept. of Animal Science
Univ. of Nebraska-Lincoln
United States
Tel: (402) 472-0518

I hereby certify that the details given above are true and correct to the best of my knowledge.

Nirosh D. Aluthge

11/08/2022