

Contact information

Aviaja Lyberth Hauptmann, PhD

Birthdate 2nd July 1986

Associate Professor and Head of SILA Department, Ilisimatusarfik

Assistant Professor, Globe Institute, University of Copenhagen

Member of the Royal Danish Academy of Sciences and Letters' Young Academy

Member of the Microbes and Social Equity Board of Directors

Member Board of Editors, mSystems (July 2024 - May 2027)

alha@uni.gl or aviajahauptmann@gmail.com

Languages: Fluency in Danish, English and Kalaallisut (Greenlandic)



Overview of current projects and activities as of January 2025

Associate Professor at Ilisimatusarfik, Head of Department with responsibility for the development and implementation of the SILA biology bachelor program.

25% Assistant Professor at Globe Institute, University of Copenhagen.

UMAMI project (PI/supervisor): mapping the microbiome and metabolome of traditional Inuit fermented foods.

GUTCYCLES (PI): gut microbiome project in collaboration with Sonnenburg Lab, Stanford. The project combines metagenomics, amplicon sequencing, transcriptomics, heavy metal measurements and in-depth understanding of Inuit foods in a longitudinal study over 15 months.

GASTROPHAGY (PI/supervisor): PhD-fellowship assessing the gut microbiome implications of eating intestines.

SILAMI NIPAATSUMI NAAPITTA (PI/supervisor): PhD-fellowship researching scientific research ethics and Kalaallit competencies in relation to scientific research and scientific education in Greenland.

Forgotten Friends (PI): pilot project researching historical traces of lost members of the Inuit human microbiota.

NSF Navigating the New Arctic planning grant (project co-owner). NNA Planning: Developing community frameworks for improving food security in Greenland through fermented foods. Collaboration with professor Maria Marco, associate professor Jessica Perea and Stephanie Maroney Ph.D. (all UC Davis faculty) <https://radicalfermentation.ucdavis.edu/>

Education

March 2017	PhD, DTU Bioinformatics, Technical University of Denmark. Focus of project: microbial ecology and genetics of cold environments of Greenland and the Arctic using a metagenomics approach
December 2012	MSc. in general biology, University of Copenhagen, Faculty of Science. Final weighed average grade of complete education including Bachelor and Master courses was 11.3 (Danish grading system)
2010	BSc. in general biology, University of Copenhagen, Faculty of Science

Work Experience and Leave

Mar 2023 –	25% assistant professor Globe Institute, University of Copenhagen
Jul 2022 –	Associate professor and Head of SILA Department, Ilisimatusarfik
Oct 2020 – Sep 2022	International postdoc at University of California Davis, funded by the Carlsberg Foundation
Feb 2020 – Sept 2020	Assistant professor at Ilisimatusarfik. Project leader Inaarsaavik-mentorship initiative for Ilisimatusarfik master's students
Maternity leave	June 2018 – Dec 2018
May 2017 – Nov 2019	The Greenland Diet Revolution - Postdoctoral researcher and project leader at University of Greenland - Ilisimatusarfik, on microorganisms from traditional Greenlandic foods. Project manager on research project at University of Copenhagen on Inuit gut microbiota
Feb 2017 – May 2017	Project manager at University of Greenland, Ilisimatusarfik, leading the InnoLab/FoodLab project on increasing innovation activities between the Greenlandic industry, scientific community and the public
Maternity leave	Apr 15 – May 16
2013-2016	Ph.D. student in microbial ecology and bioinformatics at DTU Bioinformatics, Technical University of Denmark.
2014-2015	External stay at Lawrence Berkeley National Laboratory, Berkeley, CA, and Pacific Northwest National Laboratory, Richland, Washington, USA
2015-2016	Co-founded the first biotechnological company in Greenland, ColdZymes
2014	Founded AL Hauptmann, a company relating to participation in public debates and public speaking and writing about subjects relating to

Greenland as a consequence of the blog on the Danish engineer's homepage www.lng.dk/blogs/groenlandsbloggen

2010-2011

Freelance translator from Danish to English and professional speaker of Greenlandic for language software for the company EuroTalk, UK and for Greenland.com

2009-2012

Project assistant in governmental organization concerning development of aluminum industry in Greenland, Greenland Development A/S

List of Publications

Hauptmann AL, Maroney S, Perea JB, and Marco M. (2025) Growing microbiology literacy through interdisciplinary approaches to food fermentations and an Indigenous peoples' rights framework. *Journal of Microbiology & Biology Education (JMBE)* (forthcoming April 2025)

Bjørnsen, MB., Valerón, NR., Vásquez, DP., Velasco, EM., Hansen, AJ., and **Hauptmann, AL.** (2024) Microbiota in the ptarmigan intestine - an Inuit delicacy and its potential in popular cuisine. *PLOS ONE* 19(12): e0305317

Hauptmann AL, Johansen J, Stæger FF, Nielsen DS, Mulvad G, Hanghøj K, Rasmussen S, Hansen T and Albrechtsen A (2024) Gut heavy metal and antibiotic resistome of humans living in the high Arctic. *Front. Microbiol.* 15:1493803. doi: 10.3389/fmicb.2024.1493803

Hauptmann, AL. (2024) Food sovereignty in Kalaallit Nunaat. *Food and Foodways* 32(4), 279–301. <https://doi.org/10.1080/07409710.2024.2405795>

Hauptmann, AL., Lund Olsen, N. Madkultur book chapter in TRAP Grønland (2022) Trap Danmark (ISBN-13 9788771815054)

Campbell, R., **Hauptmann, AL.**, Campbell, K., Fox, S., Marco, ML. (2022) Better understanding of food and human microbiomes through collaborative research on Inuit fermented foods. *Microbiome Res Rep* 2022;1:5 <https://dx.doi.org/10.20517/mrr.2021.06>

Magali Houde, Eva M. Krümmel, Tero Mustonen, Jeremy Brammer, Tanya M. Brown, John Chételat, Parnuna Egede Dahl, Rune Dietz, Marlene Evans, Mary Gamberg, Marie-Josée Gauthier, José Gérin-Lajoie, **Aviaja Lyberth Hauptmann**, Joel P. Heath, Dominique A. Henri, Jane Kirk, Brian Laird, Mélanie Lemire, Ann E. Lennert, Robert J. Letcher, Sarah Lord, Lisa Loseto, Gwyneth A. MacMillan, Stefan Mikaelsson, Edda A. Mutter, Todd O'Hara, Sonja Ostertag, Martin Robards, Vyacheslav Shadrin, Merran Smith, Raphaela Stimmelmayer, Enooyaq Sudlovenick, Heidi Swanson, Philippe J. Thomas, Virginia K. Walker, Alex Whiting. (2022) Contributions and perspectives of Indigenous Peoples to the study of mercury in the Arctic. *Science of the Total Environment* (June) 156566

Hauptmann, AL. (2021) Inuit Fermentation – Animal-Based and Archaic. Enriched transcript of talk at Fermentology series DOI: 10.52750/615836

Hauptmann, A. *Kiviat* book chapter in Katz, Sandor Ellix (2021) Sandor Katz's Fermentation Journeys. Chelsea Green Publishing. ISBN: 9781645020349

Waples, RK⁺, **Hauptmann, AL⁺**, Seiding, I, Jørsboe, E, Jørgensen, ME, Grarup, N, Andersen, MK, Larsen, CVL, Bjerregaard, P, Hellenthal, G, Hansen, T, Albrechtsen, A, Moltke, I. (2021) The genetic history of Greenland-European contact. *Current Biology* 31, 1-6
<https://doi.org/10.1016/j.cub.2021.02.041> (+shared first-authorship)

Møller, G., Lind, MV., **Hauptmann, AL.**, Senftleber, N., Hansen, CB., Hansen, T., Jørgensen, ME., Lauritzen, L. (2021) The role of a traditional and western diet on glucose homeostasis in Greenlandic Inuit carriers and non-carriers of type 2 diabetes variant in the TBC1D4 gene: A protocol for a randomized clinical trial. *Contemporary Clinical Trials Trials Communications* vol. 21: 100734

Hauptmann, AL. (2020) A taste for nature in an Inuit perspective. Conference abstract. *International Journal of Food Design* 5(1-2) 167-196

Hauptmann, AL., Paulová, P., Hansen, LH., Sicheritz-Pontén, T., Mulvad, G., Nielsen, DS. (2020) Microbiota in foods from Inuit traditional hunting. *PLOS ONE* 15(1): e0227819. <https://doi.org/10.1371/journal.pone.0227819>

Hauptmann, AL., Paulová, P., Castro-Mejía, JL., Hansen, LH., Sicheritz-Pontén, T., Mulvad, G., Nielsen, DS. (2020) The Microbial composition of dried fish prepared according to Greenlandic Inuit traditions and industrial counterparts. *Food Microbiology* 85 (2020) 103305

Bryndís Björnsdóttir, Margrét Geirsdóttir, Elísabet Eik Guðmundsdóttir, Guðjón Þorkelsson, Rósa Jónsdóttir, Gunnar Þórðarson, René Groben, Stephen Knobloch, **Aviaja Lyberth Hauptmann**, Janus Vang, Ingunn Gunnarsdóttir, Ragnar Jóhannsson, Lisbeth Due Schönemann-Paul, Sigrún Elsa Smáradóttir (2018) Biorefining and Biotechnology Opportunities in the West Nordic Region. Matís Technical Report ISSN 1670-7192

Hauptmann, AL., Sicheritz-Pontén, T., Cameron, KA., Bælum, J., Plichta, DR., Dalgaard, M., Stibal, M (2017) Contamination of the Arctic reflected in microbial metagenomes from the Greenland ice sheet *Environ. Res. Lett.* 12 074019 <https://doi.org/10.1088/1748-9326/aa7445> The publication received extensive attention from international media: <https://iop.altmetric.com/details/21747112>

Hauptmann, AL., Markussen, TN., Stibal, M., Olsen, NS., Elberling, B., Bælum, J., Sicheritz-Pontén, T., and Jacobsen, CS. (2016) Upstream freshwater and terrestrial sources are differentially reflected in the bacterial community structure along a small Arctic river and its estuary. *Front. Microbiol.* 7:1474 DOI:10.3389/fmicb.2016.01474

Hauptmann, AL., Stibal, M., Bælum, J., Sicheritz-Pontén, T., Brunak, S., Bowman, JS., Hansen, LH., Jacobsen, CS., Blom, N. (2014). Bacterial diversity in snow on North Pole ice floes. *Extremophiles.* 2014 Nov;18(6):945-51.

Hauptmann, AL., Glaring, MA., Hallin, PF., Priemé, A., Stougaard, P. (2013) Draft Genome Sequence of the Psychrophilic and Alkaliphilic *Rhodonellum psychrophilum* Strain GCM71T. *Genome Announc.* 2013 Dec 5;1(6).

Personal Grants and Awards

2024: Greenland Research Council Forskningsfremme grant for AMMASSAK project, 99,600 DKK

2022: Accepted a member of The Danish Royal Academy of Science's Young Academy.

2022: Aage V. Jensens Foundations, 10 mio DKK

2021: Aase og Jørgen Münters Fond, 63,000.00 DKK travel grant

2021: Dudo and Povl Brandts Foundation 31,600.00 DKK travel grant

2020: The Carlsberg Foundation international postdoc grant of 850,000 DKK for visiting scholar exchange at the University of California, Davis

2020: University of Greenland research fund (1% puljen) 56,945.00 DKK for UMAMI project

2020: Novo Nordisk Foundation 236,150.00 DKK project GUTCYCLES and project KIVIAQ

2018: The Jens Peder Hart Hansen award for emerging researchers in the field of circumpolar health

2017: Danish government's funding for Arctic research: 1,572,944 DKK postdoctoral grant

2017: Grønlandsbankens Erhvervsfond: 200,000 DKK, research grant for postdoctoral work

2011-2018: Outreach- and travel grants summed to a total of 283,400.00 DKK

2011: Oticon Foundation: 100,000 DKK, research grant for master's thesis

2011: Academicus Arcticus, Second prize for master's thesis communication

Collaborative grants

2024: Global Affairs Canada CAD 40,000 in collaboration with Dr. Amy Caughey, University of Alberta.

2021: National Science Foundation (NSF) \$298,287 grant, award number (FAIN) 2127438, title NNA Planning: Developing community frameworks for improving food security in Greenland through fermented foods, co-PI with Maria Marco and Jessica B. Perea (UC Davis).

2021: Grønlandsbankens Erhvervsfond 76,000 DKK for collaborative project with Alchemist8 Michelin-star restaurant in Copenhagen.

2021: Grant for Advancing Sustainable Development Goals entitled *Community Mentorship Program Pilot for Radical and Relational Approaches to Inuit Food Security* \$7500 from University of California, Davis.

2020: Greenland Research Council 100,000 DKK grant for Forgotten Friends project co-lead with Inge H. Seiding, Ph.D.

2020: Transcollege Research Cluster grant of \$5000, University of California, Davis, collaboration with Professor Maria Marco, Assistant Professor Jessica Perea and Dr. Stephanie Maroney

2020: SHAPE course selective for conducting course work on Radical Storywork: Performing Food Sovereignty through Inuit Fermentation Culture in collaboration with Professor Maria Marco (UC Davis) and Associate Professor Jessica B. Perea (UC Davis).

2019: UArctic Project Call for Networking Activities on Arctic Research and Education, 468,900.00 DKK

H2020-LC-CLA-2019-2 call application moved on to second round, submitted for deadline 4th of September 2019. Role as work package lead for one of seven work packages and responsible for data analysis on other work packages.

Invited Talks (lists only attended talks)

2024	Invited speaker, Applied Hologenomics Conference, Copenhagen (June)
2024	Invited speaker, Future Greenland Conference, Nuuk (May)
2024	Invited speaker, Feminist Research Institute, UC Davis, USA (March)
2024	Invited speaker, One Health Gathering, Iqaluit, CA (February)
2024	Invited keynote, Nils Klim Prize seminar, Copenhagen (January)
2023	Invited keynote, opening of Center for Indigenous Science, University of Illinois, USA (September)
2023	Invited keynote, Green Transition in Global Food Systems Symposium, Copenhagen (August)
2023	Invited keynote, ArktiskMat, Mosjøen, Norway (August)
2023	Invited keynote and panel member, Microbiology and Social Equity Symposium on Integrated Food Systems (June)
2023	Invited keynote, Vestnordisk Råd thematic conference on food security (February)

2022
(November) Invited keynote, Hindsgavl Annual Arctic Workshop, Middelfart

2022 Session speaker, NUNAMED conference, Nuuk, Greenland (October)

2022 Public speaking, National Library Greenland, Nuuk, Greenland
(September)

2022 Invited keynote at opening ceremony UN regional UNLEASH, Nuuk,
Greenland (August)

2022 University of Oregon, Dep. of Geography Colloquium Series (April)

2022 University of California, Davis, Nutrition Graduate Group (March)

2022 University of California, Davis, Dep. of Native American Studies
Colloquium (February)

2022 IMMUNE/ONÆM seminar, Iceland (April)

2021 ArktiskMat conference (September)

2021 Fermentology lecture series (June)

2021 Invited Keynote, Breaking the Ice Ceiling, Arctic Institute (April)

2021 Invited Keynote, Student Conference, University of Alberta, Canada
(February)

2020 Invited speaker, Methods and Ethics in Arctic Research, Potsdam,
Germany

2020 Invited speaker, 1st Arctic Indigenous Peoples Food Congress,
Kautokeino, Norway

2019 Invited Panel speaker, *It Tastes Like Home*, gastro-tourism conference,
Nuuk, Greenland

2019 Invited Panel speaker together with renowned fermentation expert
Sandor Katz, The Good Life Experience Festival, Wales

2019 Invited Keynote at Zonta district conference, Copenhagen, Denmark,

2018 Invited Keynote speaker, 17th International Congress on Circumpolar
Health, Copenhagen, Denmark

2017 Invited speaker, Green Growth Dialogue, Tórshavn, Faroe Islands

2016	Invited Keynote speaker, Nunamed Medical Conference, Nuuk, Greenland
2016	Invited speaker, side session on Greenlandic science, Arctic Science Summit Week, Fairbanks, USA
2015	Invited Panel speaker, Conference on Commercialization of Science, Nuuk, Greenland

Most recent public media appearances

The Sun interview (publication in 2024)

NatGeo X Prada documentary film about my work, January 2024

BBC The Food Programme radio interview with author Dan Saladino, October 2023

Preserve Magazine interview, December 2023

Getting Curious with JVN, podcast, January 2023

Microbiome Research Reports interview on recent publication Campbell et al., 2022.

KNR, National broadcasting Greenland, radio interview, September 2022

Remarkable Women Powerful Stories featured online broadcast interview with Zonta Int., Sep 2021

Front-cover feature in Greenlandic magazine Arnanut, September 2021

Podcast: Ferment Radio, January 2021

WWF Arctic Magazine The Circle, feature, October 2020

Podcast: Peak Human Podcast, July 2020

Five Media Magazine interview, June 2020

Podcast: Nordic Foodtech, February 2020

Gut Microbiota and nutrition newsletter interview, November 2019

Suluk Magazine, in-flight magazine Air Greenland, August 2019

KNR, National broadcasting Greenland, radio interview, June 2019

DR P1, National Radio Denmark, science radio program, June 2019

Nunatsiaq News, newspaper article, August 2018

KNR, National broadcasting Greenland, news, March 2018

TEACHING & STUDENT SUPERVISION

Teaching

Idehistorie og Videnskabsteori, Ilisimatusarfik, guest lecture (Feb 2024)

Det antropocæne i Arktis: Politik, geografi og samfund under forandring, Ilisimatusarfik, guest lecture (Nov 2023)

PhD reading and writing seminar Ilisimatusarfik and UC Davis, co-organizer and lecturer (Apr-Jun 2023)

Arctic Resilient Communities Youth Fellowship invited guest speaker (May 2023)

Native American and Indigenous Research Methodologies, PhD course, Ilisimatusarfik and UC Davis, co-organizer and lecturer (Jan-Mar 2023)

Positionality, Research Ethics and Decolonization, PhD course Ilisimatusarfik, co-organizer and lecturer (November 2022)

Global Disease Biology class, University of California, Davis, guest lecture (May 2022)

Food Systems class, University of Oregon, Department of Geography, guest lecture (April 2022)

Radical Storywork: Performing Relational Approaches to Inuit Food Fermentation and Food Security, co-organizer and lecturer, University of California, Davis, fall 2021

Radical and Relational approaches to Inuit fermentation class, co-organizer and lecturer, University of California, Davis, spring 2021

Emnefag A: Ilisimatusarfik, guest lecture, spring 2021

Mentor, seminar on multidisciplinary exploration of the polar regions, Maggie L. Walker Governor's School in Richmond, Virginia, USA

Emnefag D: Food Anthropology, Ilisimatusarfik, guest lecture, fall 2020

Inaarsaavik course, Ilisimatusarfik, main organizer and lecturer, spring 2020

Nunamed Ph.D. course, Ilisimatusarfik, guest lecture, fall 2019

Patenting and Biotechnology class, DTU, co-organizer and lecturer, 2015

JSEP summer school, Kangerlussuaq, lecturer, 2013 and 2014

Currently supervised students

Vivi Vold, PhD-fellow, Ilisimatusarfik, main supervisor

Mads Bjørnsen, PhD-fellow, Ilisimatusarfik and the University of Copenhagen, main supervisor

Natacha Leininger Severin, PhD-fellow, the University of Copenhagen, co-supervisor

Vivian Cheng, PhD-fellow, University of Illinois, committee member

Previously supervised students

Filip Puljiz, International master's student course project, Ilisimatusarfik, 2023-2024

Master student, Ilisimatusarfik, Vivi Vold, 2019-2020

Coaching and supervision of 23 master's students, Ilisimatusarfik, 2020

Bachelor student, University of Copenhagen, Siff Sabinsky, 2019-2020

Fullbright student, Ilisimatusarfik, Augusta Finzel, 2019-2020

Conference-organizing

2022 Moderator at NunaMed 2022 public session

2017 Main organizer, Public Seminar on Greenland Health Research funded by the Danish Government Ministry for Education and Research

2015-2017 Co-organizer of the 7th Polar and Alpine Microbiology Conference (PAM) held in September 2017 in Nuuk, Greenland

Voluntary work

2024 - 2027 Member of the Board of Editors mSystems Journal

2024 - Member of the Board of Directors, Microbes and Social Equity Working Group

2022 - 2024 External reviewer for Nordic Council of Ministers' Arctic Co-operation Programme

2021 - Inuit Circumpolar Council representative on food sovereignty issues

2021 - 2022 Advisory council member, research advisory board GINR

2021 - 2022 Advisory council member, Arctic Education Alliance (AEA)

2020 – 2023 Appointed board member of the Greenland Research Council

2020 - Expert member of ALEPH: Animal Source Foods in Ethical, Sustainable & Healthy Diets <https://aleph-2020.blogspot.com/p/authors.html>

2019 - 2020 Board member PinkPolarBearFoundation by Greenland Ruby A/S.

2019 - 2020 Board member Foreningen Grønlandske Børn, union for ensuring the well-being of all Greenlandic children

- 2012 - 2019 Blogger at the Danish Engineers Homepage Ing.dk about Greenland's future with regards to science, industry, nature and society. The blog has led to several publications both online and in printed newspapers in Denmark, Greenland and Faroe Islands. The blog has led to several participations in conferences in Denmark and internationally as well as debates both live as well as in Danish radio and TV.
- 2012 Co-founded REBBLS (Rising Entrepreneurs in BioBusiness and Life Science) network for promising entrepreneurs and intrapreneurs in biotechnology and life science.
- 2010-2011 Mentee in Kubulus University of Copenhagen alumni association mentor program with career mentor from Novozymes. The mentor-mentee meetings were used to discuss experience within starting up a small biotech company with a perspective of starting up a biotech company in Greenland.
- 2006-2010 Volunteer at environmental NGO Nepenthes (today named Verdens Skove). 2008 to 2010: chairman of local board of Copenhagen department and central coordinator of new volunteers.

Peer-review contributions

Review has been conducted for Extremophiles Journal (2015), FEMS Microbiology Ecology (2017), Applied and Environmental Microbiology (AEM) (2018), Marine Policy (2019), International Journal of Food Design (2020), Springer book chapter review (2021), Food Ethics (2022), Journal of Advanced Research (2022), mSystems (2023), Heliyon (2024)

Further details

Personal blog at Danish Engineer's homepage: www.ing.dk/blogs/groenlandsbloggen

Profile on University of Greenland's homepage: <https://da.uni.gl/find-personale/institut-for-sygepleje-sundhedsvidenskab/aviaja-lyberth-hauptmann.aspx>

LinkedIn profile: <https://www.linkedin.com/in/aviaja-lyberth-hauptmann-6a483926/>

Social media: https://www.instagram.com/aviaja_lyberth_hauptmann/

References

Maria Marco, Professor, University of California, Davis

mmarco@ucdavis.edu

Professor Marco is a collaborator and hosted the postdoc at UC Davis

Gert Mulvad, MD, GP, Doctor h.c. Dronning Ingrid's Hospital and Ilisimatusarfik

gm@peqqik.gl

Dr. Mulvad was a mentor during postdoc project at Ilisimatusarfik