

Amanda Beth Roome

Bassett Healthcare Network
Bassett Research Institute
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EDUCATION

Ph.D. Biological Anthropology
2019
Binghamton University (SUNY)

M.A. Biological Anthropology
2015
Binghamton University (SUNY)

M.S. Biomedical Anthropology
2014
Binghamton University (SUNY)

B.A. Anthropology
2011
University of Hawai'i at Hilo

RESEARCH INTERESTS

Public health; population dynamics; health transitions; health disparities; behavioral risks; pathogenesis and transmission of new and re-emerging infectious diseases; zoonotic diseases; vector-borne diseases; non-communicable diseases; prion diseases; Lyme Disease; Chronic Wasting Disease; Vanuatu and the Pacific Islands; Northeast United States

SKILLS AND EXPERTISE

Laboratory Research

- *Peromyscus leucopus* dissections
- mtDNA isolation and purification of blood and tissues
- Polymerase Chain Reaction
- Agarose gel electrophoresis
- Cycle Sequencing & read DNA sequences
- Aliquoting and micropipette serological samples
- Database development and maintenance

Teaching

- Classroom teaching
- Blackboard/MyCourses
- Online Courses
- Syllabus development
- Lecture development

Field Research

- Infectious disease risk research
- Population health field research
- Anthropometry
- Behavioral & Lifestyle surveys
- Conducting semi-structured interviews
- Live trapping of mammals
- Collection and identification of ticks
- Occupational health and safety

Languages

- English: Native language
- Spanish: Intermediate speaker, reader, and writer
- Bislama: Intermediate speaker- Lingua Franca of the Republic of Vanuatu

Computer

- Microsoft Word
- Excel
- Access
- SPSS
- STATA
- Power Point
- Internet Explorer
- Outlook
- Adobe
- Salesforce

Certificates/Certifications

- Collaborative Institutional Training Initiative (CITI) Courses
 - Social and Behavioral Researchers
 - IRB Members
 - Wildlife Research
 - Working with the Institutional Animal Care & Use Committee (IACUC)
- Working with Mice in Research Settings
- Post-Procedure Care of Mice & Rats in Research
- Social/Behavioral Research Investigators and Key Personnel
- Biomedical Research, patient contact, no drugs or device studies, Basic Course.

Additional Coursework

- Biosafety Training; Binghamton University
- Coursera.org Courses
 - Ebola Virus Disease: An Evolving Epidemic
 - An Introduction to Population Health
 - Community Change in Public Health
 - Virology: How viruses cause disease
 - Epidemics, Pandemics and Outbreaks
 - Tropical Parasitology: Protozoans, Worms, Vectors and Human Diseases
 - Questionnaire Design for Social Surveys
 - An Introduction to Global Health
 - Epidemiology: The basic science of public health
 - Epidemics- the Dynamics of Infectious Diseases

HONORS, FELLOWSHIPS, & AWARDS

- 2018 Graduate Student Award for Excellence in Research. Binghamton University, Binghamton, New York.
- 2018 Spring and Fall Dissertation Year Fellowship, Binghamton University, Binghamton, New York.

RESEARCH POSITIONS

- **Research Scientist I: Bassett Research Institute.** November 2019- Present. Coordinate research projects on ticks and tick-borne diseases revolving around human population health.
- **Field Research Coordinator: Northeast Center for Occupational Health and Safety.** February 2019-November 2019.

Coordinate field research addressing occupational health and safety hazards with lobstermen in Maine and Massachusetts.

- **Senior Research Aide: Binghamton University Lyme and Tick-Borne Disease Research Center. August 2018-September 2018.**
Organize, catalog and create databases for rodent specimens and vector ticks for past, current and future research studies.
- **Dissertation Year Assistantship: Lyme Disease: Public Health Policy and Access to Resources. May 2018-present.**
Assess trends in mitigation and prevention strategies and launch a survey to the public in order to determine the accessibility of resources.
- **Dissertation Year Assistantship: Lyme Disease: Human Health, Risk Factors and Lifestyle Impacts Assessment. May 2016-present.**
Determine lifestyle impacts of Lyme disease in order to evaluate quality of life for Lyme disease patients.
- **Research Assistant: Republic of Vanuatu: Community Health of Ambae Island Residents-Vanuatu. Professors Kelsey Dancause and Kathryn Olszowy, PIs. November-December 2017.**
Determine stress levels after a short-term displacement from a volcanic eruption and the long-term effects of the displacement.
- **Research Assistant: Republic of Vanuatu: Healthy Communities Study. Professors Kathryn Olszowy, & Kelsey Dancause, PIs. July-August 2017.**
Assess the impact stress has on non-communicable disease risk in adults from two islands at different levels of modernization.
- **Graduate Assistant: Department of Anthropology- Binghamton University. August 2013-May 2014; January 2015- December 2017.**
Assist in the development of research protocols and grant proposals, coordination of research activities; supervise and mentor undergraduate and new graduate research students, etc.
- **Research Specialist: Biospecimen Archive Facility at Binghamton University, Research Foundation for the State University of New York. June 2014-August 2014.**
Assist in managing the Biospecimen Archive Facility, Cryopreserving biospecimens, Data entry and cataloguing biospecimens, Coordinate biomedical health research.
- **Research Assistant: National Geographic Genographic Project- Genetic Diversity within and among Trans-New Guinea Language speakers of Highland Papua New Guinea. Professors Koji Lum and Ralph Garruto, PIs. May 2014-Present.**
Characterize genetic diversity within and among Trans-New Guinea Language speaking populations of Highland Papua New Guinea.
- **Research Assistant: Chronic Wasting Disease Project. Ralph Garruto, PI. March 2014-Present.**
Annually assessing human exposure to Chronic Wasting Disease (CWD) infected venison to determine if individuals exposed in a variety of ways have generalized health issues or symptoms which may be related to the development of a prion-like diseases.
- **Research Assistant: Republic of Vanuatu: Child and Maternal health in peri-urban Ni-Vanuatu Communities Vanuatu Health Transitions Project. Kathryn Olszowy, PI. June 2013-August 2013.**
Understand the impact of maternal body composition on child nutritional status within household sociobehavioral context.

- **Research Assistant: Laboratory of Biomedical Anthropology & Neurosciences; Binghamton University's Tick Borne Disease Study. Professor Ralph Garruto, PI. August 2012-Present.**

Collect, identify and molecularly examine ticks and rodents to assess the presence of *B.burgdorferi* in order to determine the human acarological risk for Lyme disease.

SERVICE TO THE PROFESSION

Conference Organizer

- Co-Organizer, Sixth Annual Lyme and Other Tick-Borne Diseases Conference, Binghamton University, New York. May 2, 2020.
 - Co-Organizer, Fifth Annual Lyme Disease Conference, Binghamton University, Binghamton, New York. May 4, 2019.
 - Co-Organizer, Fourth Annual Lyme Disease Conference, Binghamton University, Binghamton, New York. May 5, 2018.
 - Co-Organizer, Third Annual Lyme Disease Conference, Binghamton University, Binghamton, New York. April 29, 2017.
 - Co-Organizer, Second Annual Lyme Disease Conference, Binghamton University, Binghamton, New York. May 7, 2016.
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COMMUNITY SERVICE

- **Fundraising for Ni-Vanuatu Communities for Disaster Relief. 2015, 2018**
Assist in fundraising to collect clothing, needed items, and monetary donations to send to Vanuatu to assist families in need after natural disasters (Cyclone Pam 2015 and a volcanic eruption and landslide 2017-2018).
 - **Camp NEJEDA (New Jersey Diabetes Association). Yearly.**
Assist the camp on their yearly cleanup day to prepare for campers' arrival.
 - **World Vision's 30 Hour Famine. 2012, 2013, 2014.**
Led a 30 hour famine program for high school students to teach them about hunger, homelessness, health disparities and access to clean water.
 - **Cango Wildlife Ranch. July-August 2010.**
Assisted on a big cat breeding facility in Oudtshoorn, South Africa.
 - **American Cancer Society's Relay for Life. 2006, 2007, 2008.**
Participated in the Relay for Life, the American Cancer Society's signature fundraiser. Joined a team that walked for 24 hours for the relay, signifying that cancer never sleeps, and raised funds to support the American Cancer Society.
 - **"Project Hoboken". 2005**
Assisted for several weekends with the renovation of an old convent to make a livable space for homeless single mothers.
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TEACHING EXPERIENCE

Instructor of Record

- **Medical Anthropology for Pre-Health Students.** Winter 2016, Summer 2016, Winter 2017, Summer 2017, Winter 2018, Summer 2018, Winter 2019, Summer 2019, Winter 2020, Summer 2020, Winter 2021
- **Advanced Research Methods in Anthropology.** (Summer 2018)
- **Basic Research Methods in Anthropology.** (Summer 2017)

Teaching Assistant

- **Basic Research Methods in Anthropology.** Fall 2015, Spring 2016, Fall 2016, Spring 2017
- **Advanced Research Methods in Anthropology.** Spring 2016, Fall 2016. Spring 2017
- **Instructor of Record: Language, Culture and Communication.** August 2014-December 2014.

STUDENT MENTORING AND RESEARCH TRAINING EXPERIENCE

- **Student Research Mentor. Binghamton University's Tick-Borne Disease Study.** August 2012-2019.
Mentored over 200 undergraduate and graduate research students on Binghamton University's Tick-Borne Disease Study in laboratory and field research, and data analysis, interpretation, and presentation at international conferences.
- **Graduate Student Research Mentor for undergraduates in 2014 in Binghamton University Howard Hughes Medical Institute- Inter-disciplinary Research Program.** May 2014-July 2014.
Closely mentor two undergraduate students for 9 weeks to engage and train them in interdisciplinary research in science and engineering; Attend trainings, meetings and give evaluations regarding the student's progress on becoming an independent researcher.

WORKSHOPS

- **Archaeotek's Osteological Survey and Workshop 2011. Museum of History of Transylvania: Cluj-Napoca, Romania**
Attended daily intensive lectures, assist in the cleaning, reconstruction, inventory and analysis of human remains from the Late Bronze Age Noua culture

PROFESSIONAL SOCIETIES

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| 2018-Present | Member, Sigma Xi, National Scientific Honors Society |
| 2018-Present | Student Member, Entomological Society of America |
| 2012-Present | Student Member, Human Biology Association. |

PUBLICATIONS

Peer-Reviewed Publications

- Therrien AS, Buffa G, **Roome AB**, Standard E, Pomer A, Obed J, Taleo G, Tarivonda L, Chan CW, Kaneko A, Olszowy KM, Dancause KN. 2020. Relationships between mental health and diet during pregnancy and birth outcomes in a lower-middle income country: “Healthy mothers, healthy communities” study in Vanuatu. *American Journal of Human Biology*. <https://doi.org/10.1002/ajhb.23500>
- Therrien AS, Buffa G, **Roome AB**, Standard E, Pomer A, Obed J, Taleo G, Tarivonda L, Chan CW, Kaneko A, Olszowy KM, Dancause KN. 2020. Relationships between Prenatal Distress and Infant Body Mass Index in the First Year of Life in a Lower-Middle Income Country. *International Journal of Environmental Research and Public Health*. 17(7351): doi: 10.3390/ijerph17197351.
- Li M, DeRosa KL, Mann H, Spathis R, **Roome A**, Castellanos D, Gowen K, de Smet T, Echard J, Casey K, Shamooun-Pour M, Garruto RM, Lum JK. 2020. Recent kuru-induced female gene flow disrupted the coevolution of genes and languages in the Papua New Guinea highlands. *American Journal of Physical Anthropology*. 172(1): 87-98.
- N Sharareh, R Behler, **A Roome**, J Shepherd, RM Garruto, N Sabounchi. 2019. Risk Factors of Lyme Disease: An Intersection of Environmental Ecology and Systems Science. *Healthcare*. 7(2): 66.
- T Zahlawi, **A Roome**, CW Chan, JJ Campbell, B Tosiro, M Malanga, M Tagaro, J Obed, J Iaruel, G Taleo, L Tarivonda, KM Olszowy, KN Dancause. 2018 Psychosocial support during displacement due to a natural disaster: relationships with distress in a lower-middle income country. *International Health*. ihy099.
- **A Roome**, R Spathis, LA Hill, JM Darcy II, RM Garruto. 2018. Lyme disease transmission risk: seasonal variation in the built environment. *Healthcare*. 6(84): 1-12. doi:10.3390/healthcare6030084
- N Sharareh, NS Sabounchi, **A Roome**, R Spathis, RM Garruto. 2017. Model-Based Risk Assessment and Public Health Analysis to Prevent Lyme Disease. *Journal of the Royal Society Interface*. 4(11): 170841.
- **A Roome**, L Hill, V Al-Feghali, CG Murnock, JA Goodsell, R Spathis, RM Garruto. 2017. Impact of white-tailed deer on the spread of *Borrelia burgdorferi*. *Medical and Veterinary Entomology*. 31: 1-5.

Manuscripts in Preparation or Under Review

- **A Roome**, K Wander, RM Garruto. Lyme Disease in the Northeastern United States: Risk Factors and Prevention Methods.

Peer-Reviewed Abstracts

Abridged list; 27 additional published abstracts include **A Roome** as a co-author.

- **Roome A**, Wander K, Garruto RM. 2020. Lyme disease prevalence in the Northeastern United States: Cat ownership and rural living. Forty-fifth annual meeting of the Human

Biology Association, Los Angeles, California, March 27-28. *American Journal of Human Biology*. 32 (S1):47-48.

- **A Roome**, K Wander, E Standard, G Taleo, L Tarivonda, KN Dancause, KM Olszowy. 2019. Determinants of physiological stress in a low-income country: Differences between men and women in Vanuatu. Forty-fourth annual meeting of the Human Biology Association, Cleveland, Ohio, March 27-28. *American Journal of Human Biology*. 31 (2): 44.
- **A Roome**, E Standard, G Buffa, G Taleo, L Tarivonda, KN Dancause, KM Olszowy. Determinants of chronic psychosocial stress in adults within and between islands in Vanuatu. Forty-third annual meeting of the Human Biology Association, Austin, Texas, April 11-12. *American Journal of Human Biology*. 30 (2): 37-38.
- **A Roome**, RM Garruto. 2017. Lifestyle impacts and population health: Impacts of acute and chronic Lyme disease. Forty-second annual meeting of the Human Biology Association, New Orleans, Louisiana, April 18-19. *American Journal of Human Biology*. 29(2): 38-39.
- **A Roome**, A Ferrier, YJ Cen, K Schaal, F Tiu, S Vogel, S Nelson, D Goldberg, K Patel, M Armstrong, H Lin, M Susco, B Kopping, C Hashem, Z Tayyem, J Randall, S John, Z Shah, R Spathis, RM Garruto. 2016. Risk of Lyme disease in the Upper Susquehanna River Basin. Forty-first annual meeting of the Human Biology Association, Atlanta, Georgia, April 13-14. *American Journal of Human Biology*. 28(2): 294.
- **A Roome**, M McAuliffe, L Hill, V Al-Feghali, N Monroe, G Buffa, K Bower, I Li, S Tyurin, C Pabafikos, A Leighton, U Syed, C Koulouris, D Rios, A Maliga, S Alam, P Patel, N Cicchetti, A Nichter, K Lupo, C Malone, R Spathis, RM Garruto. 2015. Seasonality and risk of infection of Lyme disease. Fortieth annual meeting of the Human Biology Association, St. Louis, Missouri, March 25-26. *American Journal of Human Biology* 27(2): 284. Also in: *Abstracts from the 8th Annual Binghamton Biomedical Research Conference*, April 18, p. 2; *Abstracts from the 2014 Binghamton University Research Days*, April 24.
- **A Roome**, K Bower, CG Murnock, L Hill, B Ho, S Tyurin, V Al-Feghali, H Zeitz, D Rios, R Parwez, I Li, A Leighton, K Lupo, Y Hao, C Pabafikos, J Goodsell, N Scher, S Davis, T Lamendola, R Singh, J Ma, N DeLeon, JM Darcy II, R Spathis, RM Garruto. 2014. Prevalence of tick-borne pathogens and human behavioral risk factors in built environments of upstate New York suggest a necessity for the development of risk management models. Thirty-ninth annual meeting of the Human Biology Association, Calgary, Canada, April 9-10. *American Journal of Human Biology*. 26(2): 279.

Other Scientific Abstracts

Abridged list; 46 additional scientific abstracts include **A Roome** as a co-author

- **A Roome** & RM Garruto. 2017. Lifestyle impacts and population health: acute and chronic Lyme disease. 10th Annual Binghamton Biomedical Research Conference. Binghamton, New York, April 1.
- **A Roome**, A Ferrier, YJ Cen, K Schaal, F Tiu, S Vogel, S Nelson, D Goldberg, K Patel, M Armstrong, H Lin, M Susco, B Kopping, C Hashem, Z Tayyem, J Randall, S John, Z Shah, R Spathis, RM Garruto. 2016. Risk of Lyme disease in the Upper Susquehanna River Basin. *Abstracts from the 9th Annual Binghamton Biomedical Research Conference*, March 19.
- **A Roome**, L Hill, C Koulouris, U Syed, C Pabafikos, R Parwez, K Bower, A Ong, D Rios, S Tyurin, H Zeitz, N Monroe, P Patel, V Al-Feghali, T Lamendola, A Leighton, K Lupo, N Scher, N Cicchetti, WY Fung, A Nichter, JM Darcy II, R Spathis, RM Garruto. 2015.

Contribution of temperature and season to Lyme disease infectivity and prevalence rates of *Ixodes scapularis* in the Southern Tier. Abstract. Abstracts from the 2014 Binghamton University Research Days, March 28.

- **A Roome**, L Hill, B Ho, H Keppler, J Goodsell, N Scher, M Clark, J Perez, T Cruz, R Spathis, RM Garruto. 2013. Prevalence of Tick-borne Pathogens in Built Versus Rural Environments Suggest a Necessity for the Development of Risk Management Models. In: Abstracts of the Ecology and Evolution of Infectious Diseases, 2013 Annual Workshop and Conference, May 20-23, 2013, Penn. State University. p. 111.
 - **A Roome**, L Hill, B Ho, H Keppler, J Goodsell, N Scher, M Clark, J Perez, T Cruz, R Spathis, RM Garruto. 2013. Prevalence of Tick-borne Pathogens in Built Versus Rural Environments Suggest a Necessity for the Development of Risk Management Models. In: Abstracts of the 6th Annual Binghamton Biomedical Research Conference, Binghamton, NY, April 29-30, 2013. p. 35 *and* Abstracts, Binghamton University Research Days, Binghamton, NY, April 19, 2013.
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LECTURES, WORKSHOPS AND PRESENTATIONS

Invited Lectures and Workshops

- **A Roome**. 2021. “Global disease burdens of the recent past: science and culture” lecture series Lecture 1: Why is everyone so ticked off? Ticks and tick-borne diseases in the Northeastern United States. New York State master Teacher Program. January 12.
- **A Roome**. 2020. Bassett Community Lecture. Why is everyone so ticked off? Ticks and tick-borne diseases in Upstate New York. May 21.
- **A Roome**. 2020. Ecological Risk of Tick-Borne Pathogens. Radio interview, Lyme Ninja Radio. May 28.
- **A Roome**. 2020. Ticks in Our Town: What Every Northeasterner Needs to Know. “Pub Sci Talk” with WSKG. June 9.
- **A Roome**. 2020. The Ticking Time Bomb: Tick-Borne Disease Risk For Agricultural Workers. Northeast Agricultural Safety and Health Coalition presentation. June 9.
- **A Roome**. 2020. Diseases Without Borders: COVID-19 and the anthropology of infectious diseases. Bassett Medical Center Research Grand Rounds. July 21.
- **A Roome**. 2020. Why is everyone so ticked off? Ticks and tick-borne diseases in Upstate New York. Bassett Medical Center Research Grand Rounds. March 17.
- **A Roome** & RM Garruto. 2018. Lyme Disease: Emergence and Spread in Upstate New York. Workshop: Master Teacher Program of New York State, Albany, New York, March 12.
- **A Roome**. 2018. The spread of Lyme disease in the Northeast: Ticks, Human Health and Public Health Policy. 4th Annual Lyme Disease Conference. Binghamton, New York. May 5.
- **A Roome** & RM Garruto. 2017. Lyme Disease: Emergence and Spread in Upstate New York. Workshop: Master Teacher Program of New York State, Binghamton, New York, February 7.
- **A Roome**. 2017. Lyme Disease: Emergence and Spread in Upstate New York. 3rd Annual Lyme Disease Conference. Binghamton, New York. April 29.

- **A Roome.** 2017. Risk of Lyme Disease in the Upper Susquehanna River Basin of New York State. 1st Annual Nuts and Bolts of Lyme Disease and Current Updates. Elmira, New York, March 30.
- **A Roome.** 2016. Risk of Lyme Disease in the Upper Susquehanna River Basin. Second Annual Lyme Disease Conference, Binghamton New York, May 7.
- **A Roome.** 2015. Binghamton University Lyme and Other Tick-Borne Diseases Project: Modeling reservoir, vector, spatial and human behavioral risk of Lyme disease. First Annual Lyme Disease Conference, Binghamton New York, May 9.
- **A Roome.** 2014. Lyme and Other Tick-Borne Diseases in the Southern Tier: Ecological & Field Studies Presentation. Broome County Health Department. June 27, 2014.

Public Lectures and Community Presentations

- **A Roome.** Lyme Disease in the Northeast. Oyeyokwa Lake Community. July 7.
- **A Roome.** Lyme Disease: What do I need to know? Waverly Middle School, Waverly, New York. Carantouan Greenway & A Hope 4 Lyme Awareness Campaign. March 13-16.
- **A Roome.** Lyme Disease in the Upper Susquehanna River Basin of New York. Carantouan Greenway Annual Dinner. Sayre, Pennsylvania. April 25.
- **A Roome & RM Garruto.** 2017. Food Chain Disorders: CWD and Other Prion Diseases. Workshop: 13th Annual Harvest Dinner, St. Michael's Church, Binghamton New York, January 21.
- **A Roome.** 2016. Ticks and Tick-Borne Diseases in the Northeastern United States. Bloomingdale Free Public Library, Bloomingdale New Jersey, August 29.
- **A Roome.** 2016. Ticks and Tick-Borne Diseases in the Northeast. Pequannock Township Library Tick Program, Pompton Plains New Jersey, May 12.
- **A Roome & RM Garruto.** 2016. The threat of Lyme disease and its spread in the local Binghamton area and Southern Tier of New York. Workshop: 12th Annual Harvest Dinner, St. Michael's Church, Binghamton, New York, January 23.

YOUTUBE DOCUMENTARIES/WEBPAGE DEVELOPMENT

- **A Roome.** 2016. What You Need to Know About Ticks and Tick-Borne Diseases. Carantouan Greenway Educational Website and Brochure.
<http://www.carantouangreenway.org/lymeandticks.html>
 - **A Roome.** 2015. Lyme Specialist in "Lyme: A Human Perspective" Documentary by Cruz-Bonilla, Z., Gleason, S., Groo, T., Vargas, M.
https://www.youtube.com/watch?v=Y7utX_PKtSU&feature=youtu.be
 - **A Roome.** 2015. Lyme Specialist in "In The Lyme Light: A SUNY Broome Student Documentary by Curtis, T.
<https://www.youtube.com/watch?v=pzfLoLNOg&feature=youtu.be&app=desktop>
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