

Julie A. Dragon, Ph. D.
CURRICULUM VITAE

Position: Research Associate Professor
Department of Microbiology and Molecular Genetics
Director, Bioinformatics Shared Resource
Director, Vermont Biomedical Research Network Data Science Core
Larner College of Medicine
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EDUCATION

Year	Institution	Degree	Area of Degrees, Accolades
2007-2009	McGill University	Postdoctoral	Plant Biology
2002-2006	University of Vermont	Ph.D.	Plant Biology
1998-2002	University of Vermont	M.S.	Plant Biology
1987-1991	University of Florida	B.A.	Anthropology

FACULTY POSITIONS HELD

Year	Institution	Academic title	Department
2021-present	University of Vermont	Associate Professor	Microbiology and Molecular Genetics
2015-present	University of Vermont	Assistant Professor	Microbiology and Molecular Genetics
2011-2015	University of Vermont	Research Associate	Microbiology and Molecular Genetics
2010-2011	Norwich University	Assistant Professor	Biology
2009-2010	University of Vermont	Research Associate	Biology
2007-2009	McGill University	Post-doctoral Research Associate	Plant Science
2006-2007	Middlebury College	Visiting Professor	Biology

OTHER POSITIONS AND MAJOR ADMINISTRATION POSITIONS HELD

Years	Location/Program Name	Role
2021-present	Data Science Core, Vermont Biomedical Research Network, UVM	Director
2017-present	Vermont Integrative Genomics Resource, Larner College of Medicine, UVM	Director
2015-present	Genome Technologies Core, Vermont Center for Immunobiology & Infectious Disease, University of Vermont	Director
2014-present	Bioinformatics Shared Resource, Larner College of Medicine, UVM	Director
2011-2014	Bioinformatics Shared Resource, Larner College of Medicine, UVM	Manager

PROFESSIONAL SERVICE

DEPARTMENTAL SERVICE

Years	Department	Committee	Role: Ave hrs/yr
2023-2025	MMG	Graduate Academics Committee	Member: 14
2018-present	MMG	Faculty Affairs and Career Development Committee	Member: 12
2018-2023	MMG	Diversity and Inclusion	Champion: 12

COLLEGE SERVICES

Years	Service Committee	Role: Ave hrs/yr
2017-2018	Lake Champlain Cancer Research Organization	Internal Grant Reviewer: 3
2015	LCOM Clinical Informatics Elective Round Table	Panelist: 1
2014-present	University of Vermont Cancer Center	Full Member: 16

UNIVERSITY SERVICE

Years	Service Committee	Role: Ave hrs/yr
2025	Barry Goldwater Scholarship	Reviewer: 4
2025	PBIO Chair Review committee	Reviewer: 4
2025	VBRN grant writing workshop	Reviewer: 2
2023	MMG Hiring Committee, Tenure-track Faculty	Search Chair: 15
2022	Dept. of Medicine Hiring Committee, Chair search	Member: 20
2022	MMG Hiring Committee, Tenure-track Faculty	Member: 6
2020	UNH Bioinformatics Accelerated Masters Proposal Review	Panelist: 4
2020	MMG Hiring Committee, Tenure-track Faculty	Member: 6
2019	Vermont Genetics Network	Faculty Mentor: 10
2017-2020	Our Common Ground Committee	MMG Representative: 6
2016	UVM Communication on the benefits of Internet 2	Interviewee: 1
2014-present	Vermont Advanced Computing Core (VACC)	Advisory Board Member: 4
2013-2018	Vermont Genetics Network	Grant Reviewer: 4
2011	Vermont Genetics Network, Research Faculty Search Committee	Member: 6
2011	Vermont Genetics Network, Student Research Day	Judge: 3
2009-2011	Vermont Genetics Network Annual Career Day	Panelist: 4

GOVERNMENT

2022-present: Collaborative project with Vermont Fish and Wildlife and the US Geological Survey to study melanoma in Brown Bullhead in Lake Memphremagog. Assisted USGS UVM Coop to hire a postdoctoral candidate to facilitate this work in 2024 and beyond.

2021-present: Analyze Covid19 cases for the Vt. Dept. of Health – VIGR provides weekly analysis of all submitted sequences for variants of interest and concern, upload the data to national and global databases, and report to the VDH. In addition, I am working with the state molecular epidemiologist on outbreak characterization in elder care facilities and high schools. These analyses have and will continue to be presentation at national conferences.

SOCIETY MEMBERSHIPS

Years	Society	Role: Ave hrs/yr
2022-present	NE Regional Life Science and Lab Staff and Directors Chapter of ABRF, organizational committee	Meeting Host 2023: 200 Member: 10
2009-present	Association of Biomolecular Resource Facilities (ABRF)	Member: 40
2016-2018	International Society for Computational Biology and	Member: 24

2016-2018 Bioinformatics
 American Medical Informatics Association Member: 24

SERVICE TO PROFESSIONAL ORGANIZATIONS

Years	Service Committee	Role: Ave hrs/yr
2024	Graduate Program Review, St. Georges University, Dept. of Microbiology, Immunology, & Pharmacology	External Reviewer: 10
2024-present	Dartmouth College Computational Biology COBRE	EAC Member: 56
2023-present	Genomics Bioinformatics Research Group, Association of Biomolecular Resource Facilities	Member: 20
2017-2023	Genomics Bioinformatics Research Group, Association of Biomolecular Resource Facilities	Chair: 60
2023	VT NASA EPSCoR Graduate Fellowship Awards	Reviewer: 6
2022	NE Regional Life Science & Lab Staff & Directors Chapter	Bioinformatics Session Organizer: 24
2019	NE Regional Life Science and Lab Staff and Directors Chapter	Bioinformatics Session Organizer: 24
2019	Maine Medical Center Research Institute Metabolism COBRE	Grant Reviewer: 2
2017	Northeastern Regional Life Science Core Directors Annual Meeting	Panelist: 2
2015	Northeastern Regional Life Science Core Directors Annual Meeting	Session Organizer and Panelist: 50

SERVICE TO PROFESSIONAL PUBLICATIONS

Years	Journal/Publication/Board	Role: Ave hrs/yr
2023	Vermont Space Grant Consortium Graduate Fellowship	Reviewer: 4
2022	Frontiers in Microbiology	Reviewer: 4
2018	Nature Scientific Reports	Reviewer: 2
2016	Journal of Biogeography and Systematic Botany	Reviewer: 2
2014	Journal of Biomolecular Techniques	Reviewer: 2
2014	Cancer Research	Co-Reviewer: 2

PUBLIC SERVICE

Years	Service Role	Role: Ave hrs/yr
2026	Allan Alda Scientific Communicating Science Workshop	Participant: 3
2023	All Things Considered re Lake Memphremagog Project	Interviewee: 4
2023	WCAX re NASA ISS project	Interviewee: 4
2015	Across The Fence television program	Interviewee: 6
2015	University of Vermont Medical Center Innovation Blog	Contributor, 2 parts: 10

TEACHING

FORMAL SCHEDULED CLASSES

Year	Course No: Title	Course R/E	Hours	No. of Learners	Learner level
2026	Path6070	E	3	3	G
2026	MMG2060: Introduction to Biomedical Research Methods	E	8	35	U

2025	MMG2060: Introduction to Biomedical Research Methods	E	4	?	U
2025	BCORE	R	1	?	U
2024	MMG2060: Introduction to Biomedical Research Methods	E	4	35	U
2023	MMG296: Human Microbiome	E	4	12	U, G
2023	MMG106: Introduction to Biomedical Research Methods	E	4	35	U
2022	MMG106: Introduction to Biomedical Research Methods	E	3	35	U
2021	MMG231: Bioinformatics & Data Analysis	E	45	25	U, G
2021	*MMG232: Advanced Bioinformatics	E	45	16	U, G
2020	MMG106: Introduction to Biomedical Research Methods	E	3	41	U
2020	MMG232: Methods in Bioinformatics	R (U), E (G)	45	28	U, G
2020	MMG195: Introduction to Biomedical Research Methods	E	3	14	U
2018	MMG232: Methods in Bioinformatics	R (U), E (G)	45	25	U, G
2017	MMG232: Methods in Bioinformatics	R (U), E (G)	45	26	U, G
2016	MMG232: Methods in Bioinformatics	E	45	24	U, G

R-required; E-elective; Hours-approx. per semester; U-undergraduate studies, G-graduate studies

CURRICULUM DEVELOPMENT

- 2024 Long-read Sequencing Curriculum-embedded Undergraduate Research Experience (CURE); presented at Norwich University with Dr. Allison Neal, Module design and direction
- 2020 MMG231 Advanced Bioinformatics, Director and Instructor
- 2016 MMG232 Methods in Bioinformatics, Director and Instructor

My role as a *committee member* or *mentor* in all cases was to assist the students with any computational biology required by their research projects. My role as *research supervisor* was to develop and oversee bioinformatics research projects with the students.

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program School	Role	Current Position
2024	Matt Ketover	MMG	Supervisor	Lab intern
2024 - present	Julia Donahue	MMG	Supervisor	Lab intern
2024 - present	Juliette Majeske	MMG	Supervisor	Lab intern
2023-2024	Jax Lubkowitz	UG	Supervisor	Graduate school
2022 - present	Sophie Hadley	ES	Supervisor	Lab intern
2022 - 2025	Eva Trueworthy	CS	Supervisor	Lab intern
2022	Molly Hoppa	MMG	DUR supervisor	FDA
2021	*Toby Lanser	MMG	Research supervisor	Graduate school
2021	Caroline Green	MMG	Research supervisor	Integral Inc.
2020	Mathew Hammer	BISC	Research supervisor	Graduate school
2020	Pheobe Kehoe	MS Pharmacology	Research supervisor	10X Genomics
2018-2019	Yi Chuan Yu	MMG	DUR advisor	Graduate student
2018-2019	Niveditha Badrinarayanan	MMG	DUR committee	Graduate student
2018-2019	*Sean Quigley	MMG	Research supervisor	Unknown
2018-2022	Dan Vellone	MMG	Research supervisor	Oxford Nanopore

2017-2018	Sam Greenfield	MMG	Research supervisor	American Type Culture Collection
2018	Victoria Childs	MMG	DUR committee	Unknown
2018	Amanda Adams	MMG	DUR committee	Unknown
2016	William Robinson	Honors College	Thesis Committee	Unknown

* Research fellowship recipient

DISSERTATION/THESIS COMMITTEE MEMBERSHIP

<u>Dates</u>	<u>Name</u>	<u>Program School</u>	<u>Role</u>	<u>Current Position</u>
2024-present	Yusuf Oyebamiji Yus	Plant Biology, PhD	Thesis committee	Graduate student
2024-present	Cameron Cordero	CMB, PhD	Thesis committee	Graduate student
2024-2025	Bruce Lickey	Chemistry, PhD	Thesis chair	Industry
2024-2025	David Green	Plant Biology, MS	Thesis chair	Graduate student
2025-present	Rei Jia	Plant Biology, PhD	Thesis committee	Graduate student
2023-2024	Leandro Conrado	Civil & Environmental Engineering, PhD	Thesis chair	Industry
2022-present	Bertrand Black	Plant Biology, PhD	Thesis chair	Graduate student
2022-2024	Panagiota Stamatopoulou	Civil & Environmental Engineering, PhD	Thesis committee	Industry
2021-2023	Bharath Mulukala	Animal Sci, PhD	Thesis chair	Industry
2020-present	Sandra Nnadi	Plant Biology, PhD	Thesis committee	Graduate student
2018-2022	Emory Pacht	Animal Sci, PhD	Thesis committee	Postdoc
2018-2021	Emily Whitaker	CMB, PhD	Thesis committee	Academia
2012-2014	Sonali Heath	Pharmacology, MS	Thesis committee	Industry
2010-2012	Pamela Lescault	CMB, PhD	Thesis committee	Industry

POSTDOCTORAL FELLOWS/RESIDENTS DIRECTLY SUPERVISED OR MENTORED – none to date

2026-present	Zoe Clark	MMG	Co-Mentor	Fellow
2024-present	Jimmy Varagas	Biomedical & Health Science	Co-Mentor	Fellow

INFORMAL TEACHING

<u>Year</u>	<u>Course</u>
2023	Hosting CMB student for a 3-month rotation in the Bioinformatics core (Justin Paluba).
2023	Hosting a St. Lawrence undergraduate for a 6-week summer internship in the Data Science Co
2019	The Cancer Genome Atlas: Mining public data can inform <u>your research</u> (and you can do it yourself!)
2015	MMG001 First-Year Colloquium Faculty Panelist
2014	Integrated Core Expertise and Tools to Support. UVM Department of Obstetrics, Gynecology, and Reproductive Services Annual Research Retreat
2014	Sequence-based predictive biomarkers: Power, evidence, and the yardstick for genomic medicine. UVM Department of Pathology Grand Rounds.
2014	Differential susceptibility of human pleural and peritoneal mesothelial cells to asbestos exposure, UVM Clinical and Translational Research Symposium
2011	Analysis of miRNA data in Ingenuity
2010	Analysis of public data in NIH's Gene Expression Omnibus
2010	Microarray project design and analysis
2009	Systems biology with Ingenuity Pathway Analysis

My role as a *mentor* or *research supervisor* of faculty was to assist in career development, review grants and papers, and assist them to develop and troubleshoot bioinformatics pipelines.

FACULTY MENTORED

<u>Dates</u>	<u>Name</u>	<u>Program School</u>	<u>Role</u>	<u>Current Position</u>
2019-2021	Michael Linderman	Middlebury College	Vermont Genetics Network Research Advisor	Assistant Professor

OTHER VISITING FACULTY SUPERVISED

<u>Dates</u>	<u>Name</u>	<u>Program School</u>	<u>Role</u>	<u>Current Position</u>
2012-2013	Akshita Dutta	Helen DeVos Childrens' Hospital	Mentor	Unknown
2013-2014	Abhinav Nagulapall	Helen DeVos Childrens' Hospital	Mentor	Bioinformatician, Helen DeVos Childrens' Hospital

TEACHING AIDS

<u>Year</u>	<u>Course</u>	<u>Aide</u>
2016	Big Genome Data Skills Training Course for Professors (INBRE states), <i>The Jackson Laboratory, JAX Genomic Medicine, Farmington, CT (NIH Big Data to Knowledge Initiative (BD2K))</i>	On-line teaching modules

RESEARCH AND SCHOLARLY ACTIVITIES

RESEARCH AWARDS AND GRANTS

2026-2028 NIFA-AFRI-011134 (Dragon and Rademacher; PIs); USDA; The Metagenomics And Transcriptomics Of Sugar Maple Sap: How Do Parentage, Microbes, And The Environment Influence Sugar Map Sweetness?; This project aims to characterize the DNA and RNA endemic to sugar maple sap and associated with sap sweetness. **Current, \$274,746 to the core over three years.**

2026-2031 NIFA-AFRI-011134 (Rademacher, Fresnedo-Ramirez, Wild, and Dragon; PIs); USDA; Unlocking Genetic Potential for Enhanced Sugar Yields in Sugar Maple: Insights from 60-Year-Old Progeny Trials; This project seeks to uncover the genetic basis of key physiological traits (i.e., sap sugar content, sap volume, and radial growth) that determine the productivity and sustainability of maple sugaring. **Pending, \$36,587 to Dragon over 5 years.**

2026 Great Lakes Fisheries Commission; (Henderson and Dragon; PIs); Assessing risk factors for malignant melanomas in Brown Bullhead: Are they transmissible between individuals? This project will identify additional populations of bullhead with transmissible cancer through high throughput genomics and use eDNA to demonstrate viability of clonal cancer cells in the environment. **Current, \$140,000 to the core for one year.**

2025-2030. NIH 5P20GM103449 (Francklyn, C; PI); NIH/NIGMS; Vermont Biomedical Research Network (VBRN). The major goal of this grant is to increase the culture of research in the state's four-year institutions by facilitating faculty members' research/grant productivity and undergraduate education in the sciences. Dragon is the Director of the Vermont Integrative Genomics Resource (VIGR) and the VBRN Bioinformatics Core, which will affiliate with VIGR. **Current, \$83,747 to the core annually for five years.**

2024-2029 R01CA286069 (Ahearn, Thomas; PI); NCI; Using gene expression to identify patients at high risk for late breast cancer recurrence. The goal of this award is to discover the first molecular test to predict a woman's risk for late breast cancer recurrence. Such a test would allow risk stratification for initiating one of several new and emerging therapies to prevent late recurrence. Dragon is the lead bioinformatics. **Current \$12,512 to Dragon annually, for five years.**

- 2023-2028 U54 GM115516-01 (Rosen PI); NIH/NIGMS; Northern New England Clinical and Translational Research Network Translational Genomics Core and the Clinical Research Design, Epidemiology, Biostatistics, Geospatial Tech Core (Dragon, J. PI). Dragon assists with technology development and implementation to support researchers and is lead bioinformatics for multiple funded pilot awards. **Previously \$11,500 to Dragon annually, plus 20% in kind support from LCOM for the core, for five years.**
- 2022-2025. 03420-09284 (Dragon, J; PI). State of Vermont Department of Health The UVM Vermont Integrative Genomics Resource (VIGR) will provide sequencing of COVID-19 samples as part of the public health response to Coronavirus for the purposes of public health surveillance and epidemiological follow-up. **Current \$50,000 to Dragon annually.**
- 2020-2025. NIH 5P20GM103449 (Francklyn, C; PI); NIH/NIGMS; Vermont Biomedical Research Network (VBRN). The major goal of this grant is to increase the culture of research in the state's four-year institutions by facilitating faculty members' research/grant productivity and undergraduate education in the sciences. Dragon is the Director of the Vermont Integrative Genomics Resource (VIGR) and the VBRN Bioinformatics Core, which will affiliate with VIGR. **Current, \$83,747 to the core annually for five years.**
- 2020-2022. NNH20ZHA002C (Dragon, JA, P.I.) NASA EPSCoR Research Infrastructure Development; supplement to support research activities and technology development priorities of NASA Mission Directorates of the EPSCoR state, specifically the ISS Flight Opportunity award. **Previous, \$35,000 for one year.**
- 2020-2023. NNH20ZHA002C (Dragon, JA, Scientific P.I.) NASA EPSCoR International Space Station Flight Opportunity; Optimization of a one-step, small footprint nucleotide extraction device for DNA/RNA extraction under space conditions. Dragon oversees preparation of instrument for payload integration and nucleic acid extraction, prepare operation documentation for astronauts, and compare ISS and ground extractions. **Previous, \$100,000 for three years.**
- 2020-2023. W912HZ-19-BAA-01 U.S. Army Engineer Research and Development Center Broad Agency Announcement (Corriveau, J, P.I., and Marshal, J, P.I.) Army Visual and Tactical Arctic Reconnaissance (AVATAR); Partnership with the U.S. Army Engineer Research & Development Center Cold Regions Research & Engineering Laboratory; Integration of metagenomic geomapping and microbial profiling to detect natural and synthetic reporter molecules useful for advanced surveillance operations. Subproject PI and bioinformatician. Dragon will collect samples, oversee microbe sequencing, and provide analysis support. **Previous, \$574,607 for three years.**
- 2018-2023. P20 P20GM125498 (Kirkpatrick, ED, P.I.); Translational Global Infectious Diseases Research (TGIR); Mathematical and Computational Predictive (MCP) Modeling Core key personnel. Dragon participates in seminars and development activities for the modeling core. **Previous, \$11,500 annually to the core for five years.**
- 2017-2022. U54 GM115516-01 (Rosen PI); NIH/NIGMS; Northern New England Clinical and Translational Research Network Translational Genomics Core and the Clinical Research Design, Epidemiology, Biostatistics, Geospatial Tech Core (Dragon, J. PI). Dragon assists with technology development and implementation to support researchers and is lead bioinformatics for multiple funded pilot awards. **Previous \$11,500 to Dragon annually, plus 20% in kind support from LCOM for the core, for five years.**
2017. LCOM Internal pilot grant (Dragon, JA, P.I.); New Methodologies in Basic Research Grant Awards for purchase of the Oxford Nanopore Technologies GridION long read sequencer. **Previous, \$80,000 to purchase and develop a new core technology in 2018 and 2019.**
- 2016-2021. P30-GM118228 (Budd, R.C., P.I.); NIH/NIAID; Vermont Immunobiology/Infectious Diseases Center. Co-Investigator and Director of the Genome Technologies Core. Dragon provides technology direction and data analysis for member investigators. **Previous, \$125,000 to the core annually for five years.**

- 2016-2021. U01 CA196383-01 (Stein, J.L., P.I.); NIH/NIAID; Vermont Breast Care Characterization Laboratory. Director of the core supporting the bioinformatics, and lead bioinformatician. **Previous, \$26,325 to the core annually for five years.**
- 2015-2020. P01 CA098993/6-10 (Doublié, S., P.I.); NIH/NCI; Structure and Function of DNA Repair Enzymes. Director of the core supporting the bioinformatics, and lead bioinformatician. **Previous, \$78,234 to the core annually for five years.**
2020. University of Vermont Cancer Center pilot award (Stumpff, P.I., and Dragon, Co.I.); Investigating the impact of micronuclei on genomic stability of primary tumor cells using long read sequencing. Dragon will oversee sequencing and data analysis. **Previous, \$10,150 to the core.**
2016. UVM Cancer Center-LCCRO pilot award (Shukla, P.I., and Dragon, Co.I.); Role of microbiome in asbestos-induced diseases and therapy. Dragon provided lead bioinformatics support and was lead author on the publication of the results of this award. **Previous, \$9,600 to the core.**
- 2016-2018. R21 AI119974-01 (Boyson, R.C., P.I.); NIH/NIAID; A host genetic locus that regulates susceptibility to influenza infection. Director of the core supporting the bioinformatics, and lead bioinformatician, 3%FTE on FFS bases. **Previous, \$5,000 to the core annually for two years.**
- 2016-2018. R01 AR03958825A1 (Stein, G, and Lian, J., P.I.); NIH/NIAIMS; Control of Osteoblast Proliferation and Differentiation. Lead Bioinformatician. **Previous, \$11,500 to the core annually.**
- 2011-2016. P20 RR021905/06-10 (Budd, R.C., P.I.); NIH/NIAID; Vermont Immunobiology/Infectious Diseases Center. Co-Investigator and Director of the Genome Technologies Core, 30%FTE. **Previous, \$89,000 to the core annually for five years.**
- 2010-2015. P01 CA098993/6-10 (Wallace, S.S., P.I.); NIH/NCI; Structure and Function of DNA Repair Enzymes. Bioinformatician, 15%FTE. **Previous, \$75,000 to the core annually for five years.**
- 2015-2016. Translational Genomics Research Institute (Bond, J., P.I.); Dell; Subcontract P.I., Dell Powering the Possible Program. Bioinformatician, 15%FTE. **Previous, \$125,000 to the core for a one-year contract.**
- 2014-2015. Translational Genomics Research Institute (Bond, J., P.I.); Dell; Subcontract P.I., Dell Powering the Possible Program. Bioinformatician, 15%FTE. **Previous, \$90,000 to the core for a one-year contract.**
- 2013-2014. Translational Genomics Research Institute (Bond, J., P.I.); Dell; Subcontract P.I., Dell Powering the Possible Program. Bioinformatician, 15%FTE. **Previous, \$75,000 to the core for a one-year contract.**
- 2012-2013. Translational Genomics Research Institute (Bond, J., P.I.); Dell; Subcontract P.I., Dell Powering the Possible Program. Bioinformatician, 15%FTE. **Previous, \$43,000 to the core for a one-year contract.**
- 2007-2009. NSF International Research Fellowship Program (Co PIs Dragon, JA, Waterway MJ, and Ashton P). Lead grant author and investigator. **Previous, \$153,000 for two years of funding.**

SCHOLARSHIP

Peer Reviewed Publications

I provided *lead bioinformatics support* for the following projects for which I am an author/co-author.

Original Research

1. Tighe SW, Bouffard NA, Tracy KM, Hadley SR, Richard SC, **Dragon JA**. 2025. Examining Psychrophilic Microbial Colonization of a Biodegradable Plastic using Scanning Electron Microscopy. *J Biomol Tech*. *In submission*.
2. Sawyer D, Eckenroth BE, Chavira C, Alnajjar K, Hanley JP, **Dragon JA**, Doublié S, and Sweasy JB. 2025. The S180R human germline variant of DNA polymerase β is a low fidelity enzyme with reduced flexibility of the fingers domain. *Biochemistry*. *In submission*.
3. Curd E, Hart S, Lubkowitz J, Tracy K, Millazo L, Bodnar M, Jones T, Henderson M, Emerson P, **Dragon JA**.

2025. A novel fourth type of transmissible cancer; clonal malignant melanoma in the benthic fish species *Ameiurus nebulosus*. *Nature*. In submission.**
4. Samantha Costa, Gisela Pachón-Peña, **Julie Dragon**, Scott Tighe, Calvin Vary, Heather Campbell, Pouneh Fazeli, Miriam Bredella, Karen Miller, Anne Klibanski, Clifford J Rosen. 2025. Altered Patient Metabolomic and Inflammatory Transcriptomics After Fasting and High Calorie Diet in Bone Marrow Adipocytes. *Frontiers in Endocrinology*. In submission.
 5. Vareta J, Zhang X, Kuhnell D, Hagen MC, Takiar V, Wise-Draper TM, Casper KA, Rodriguez-Ramirez P, **Dragon JA**, Langevin S. 2025. Characterizing the mutational landscape of sinonasal squamous cell carcinoma. *Oral Oncology*, Vol 169, 107694. [doi:10.1016/j.oraloncology.2025.107694](https://doi.org/10.1016/j.oraloncology.2025.107694). PMID: 40972435. Impact factor: 3.9.
 6. Tighe SW, Vellone DL, Tracy K, Lynch DB, Finstad KH, McLellan M, **Dragon JA**. 2025. Microbiome and microbial profiling of arctic snow using whole genome sequencing, psychrophilic culturing, and novel sampling techniques. *J Biomol Tech*. March; doi:10.7171/3fc1f5fe.0f37be73. PMC12051450. Impact factor: 1.51.
 7. Tighe S, Curd E, Tracy K, Finstad KH, Hadley S, Vellone D, **Dragon J**. 2024. Biomolecular Analysis of Arctic Microorganisms Capable of Psychrophilic Growth on Biodegradable and Compostable Plastics. *J Biomol Tech*. 35(4) doi:10.7171/3fc1f5fe.601df0cc. PMC12051446. Impact factor: 1.51.
 8. Pilcher LE, Solomon L, **Dragon JA**, Gupta D, Previs MJ, Spees JL. 2024. The Neural Progenitor Cell-Associated Transcription Factor FoxG1 Regulates Cardiac Epicardial Cell Proliferation. *Stem Cells International*, Jan 11:2024:8601360, <https://doi.org/10.1155/2024/8601360>. PMC10796189.
 9. Peterson K, Despres HW, Schmidt MM, Eckstrom K, Unger A, Snyder J, Carmolli M, **Dragon JA**, Thomas K, Shirley DJ, Bruce EA, Crothers J. 2023. Determining the impact of vaccination on SARS-CoV-2 RT-PCR cycle threshold values and infectious viral titers. *Access Microbio*. doi.org/10.1099/acmi.0.000597.v3. PMC10634488. Impact factor: 2.6.
 10. **Dragon JA**, Hoaglund M, Badireddy AR, Nielsen G, Schlezinger J, Shukla A. 2023. Perfluoroalkyl substances (PFAS) impact inflammation in lung cells and tissues. *Int J Mol Sci*, 24(10), 8539; <https://doi.org/10.3390/ijms24108539>. PMC10218140. Impact factor: 6.21.**
 11. Ye B, Bradshaw A, Lloréns JA, **Dragon JA**, Häußler T, Bell S, Hirashima F, LeWinter M, Zile M, and Meyer M. 2023. Left Ventricular Gene Expression in Heart Failure with Preserved Ejection Fraction Pro-fibrotic versus Pro-inflammatory Signature. *Circulation: Heart Failure*. doi 10.1161/CIRCHEARTFAILURE.123.010395. PMCID: PMC10430768. Impact factor: 9.92.
 12. Farrell M, Fairfield H, Karam M, D'Amico A, Murphy C, Falank C, Pistofidis RS, Cao A, Marinac C, **Dragon JA**, Jachimowicz E, DeMambro V, Vary C, Reagan MR. 2023. Targeting the fatty acid binding proteins disrupts multiple myeloma cell cycle progression and MYC signaling. *eLife* 12:e81184. <https://doi.org/10.7554/eLife.81184>. PMC9995119. Impact factor: 8.71.
 13. Victor J, Jordan T, Lamkin E, Ikeh K, March A, Frere J, Crompton A, Allen L, Fanning J, Lim WY, Muoio D, Fouquerel E, Martindale R, Dewitt J, DeLance N, Taatjes D, **Dragon J**, Holcombe R, Greenblatt M, Kaminsky D, Hong J, Zhou P, TenOever B, Chatterjee N. 2022. SARS-CoV-2 hijacks host cell genome instability pathways. *Research Square* Apr 14 doi 10.21203/rs.3.rs-1556634/v1. PMCID: PMC9016650. PMID: 35441168.
 14. Ramos-Nino ME, Anash G, Fitzpatrick DM, **Dragon JA**, Cheetham S. 2022. Antiviral RNAi mechanisms to arboviruses in mosquitoes: microRNA profile of *Aedes aegypti* and *Culex quinquefasciatus* from Grenada, West Indies. *Appl. Microbiol.*: 2 (2): 381–396.<https://doi.org/10.3390/applmicrobiol2020029>. Impact factor: 4.06.
 15. Iwanowicz L, Blazer V, Jones T, Bodnar M, Eckstrom K, **Dragon J**, Emerson P. 2022. Draft Genome Sequence of a Novel Calicivirus from a Brown Bullhead (*Ameiurus nebulosus*) from Lake Memphremagog, VT. 2022. *Ameri Soc for Microbiology*. Mar 17;11(3): e0118821. doi: 10.1128/mra.01188-21. PMCID: PMC8928769. Impact factor: 7.87.
 16. Trott JF, Schennink A, Horigan KC, Gemay DG, Cohen JR, Famula TR, **Dragon JA**, Hovey RC. 2022. Unique transcriptomic changes underlie hormonal interactions during histomorphogenesis of the mammary

- glands in female pigs. *Endocrinology*, 163(3). DOI: [10.1210/endo/bqab256](https://doi.org/10.1210/endo/bqab256). PMID: 34918063. Impact factor: 3.96.
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 19. Ramos-Nino ME, Fitzpatrick DM, Eckstrom KM, Tighe S, **Dragon JA**, Cheetham S. 2021. The kidney-associated microbiome of wild-caught *Artibeus* spp. in Grenada, West Indies. *Animals*: 11, 1571. <https://doi.org/10.3390/ani11061571>. PMID: 34072244. PMC8227013. Impact factor: 2.40.
 20. Hanley J, **Dragon JA**, Dickson DM, Selig N, Tighe S, Eckstrom K, Scarpino SV, Whitehead SS, Durbin AP, Pierce KK, Kirkpatrick BD, Rizzo DM, Fietze S, and Diehl, SA. 2021. Immunotranscriptomic profiling the acute and clearance phases of a human challenge dengue virus serotype 2 infection model. *Nature Comm* May 24;12(1):3054. doi: 10.1038/s41467-021-22930-6. PMID: [34031380](https://pubmed.ncbi.nlm.nih.gov/34031380/). PMC8144425. Impact factor: 11.80.
 21. Scharer CD, Fortner KA, **Dragon JA**, Tighe S, Boss JM, and Budd RC. 2020. Selective DNA demethylation accompanies T cell homeostatic proliferation and gene regulation in lupus-prone *lpr* mice. *ImmunoHorizons* Oct 23;4(10):679-687. doi: 10.4049/immunohorizons.2000078. PMID: [33097564](https://pubmed.ncbi.nlm.nih.gov/33097564/). Impact factor: 4.34.
 22. Eckenroth BE, Cao V, Averill AM, **Dragon JA**, Doublé S. 2020. Unique structural features of mammalian NEIL2 DNA glycosylase prime its activity for diverse DNA substrates and environments. *Structure* Aug 15: S0969-2126(20)30283-5. doi: 10.1016/j.str.2020.08.001. Online ahead of print. PMID: [32846144](https://pubmed.ncbi.nlm.nih.gov/32846144/). Impact factor: 4.86.
 23. Bruce EA, Huang M, Perchetti GA, Tighe S, Laaguiby P, Hoffman JJ, Gerrard DL, Nalla AK, Wei Y, Greninger AL, Diehl SA, Shirley DJ, Leonard DGB, Huston CD, Kirkpatrick BD, **Dragon JA**, Crothers JW, Jerome KR, Botten JW. 2020. Direct RT-qPCR detection of SARS-CoV-2 RNA from patient nasopharyngeal swabs without an RNA extraction step. *PLOS Bio* Oct 2;18(10):e3000896. doi: 10.1371/journal.pbio.3000896. PMID: [33000896](https://pubmed.ncbi.nlm.nih.gov/33000896/). Impact factor: 7.62.
 24. Galton VA, Martinez ME, **Dragon JA**, St Germain DL, and Hernandez A. 2020. The intrinsic activity of thyroxine is critical for survival and growth and regulates gene expression in neonatal liver. *Thyroid*: Sept 16. <https://doi.org/10.1089/thy.2020.0508>. PMID: [327994419](https://pubmed.ncbi.nlm.nih.gov/327994419/). Impact factor: 8.30.**
 25. Urbaniak C, Wong S, Tighe S, Kumar A, Liu B, Parker C, Wood J, Singh N, Skorupa D, Peyton B, Jenson R, Karouia F, **Dragon JA**, and Venkateswaran K. 2020. Validating an automated nucleic acid extraction device for omics in space using whole cell microbial reference standards. *BMC Microbiome* Aug 21, <https://doi.org/10.3389/fmicb.2020.01909>. PMID: [32973700](https://pubmed.ncbi.nlm.nih.gov/32973700/). Impact factor: 4.47.
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 28. Bruce EA, Tighe SW, Hoffman JJ, Laaguiby P, Gerrard DL, Diehl SA, Leonard DGB, Huston CD, Kirkpatrick BD, Crothers JW, **Dragon JA**, Botten J. 2020. RT-qPCR detection of SARS-CoV-2 RNA from patient nasopharyngeal swab using Qiagen RNeasy Kits or directly via omission of an RNA extraction step. *BioRxiv* doi: <https://doi.org/10.1101/2020.03.20.001008>. Impact factor: NA.

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31. Dienz O, DeVault VL, Musial SC, Mistri SK, Mei L, Baraev A, **Dragon JA**, Kremontsov D, Veillette A, and Boyson JE. 2020. Critical role for Slam/SAP signaling in the thymic developmental programming of IL-17- and IFN-g-producing gd T cells. *Journal of Immunology*: [doi.org/10.1101/802728](#). PMID: [PMC7065973](#). Impact factor: 4.72.
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34. Silva, MC, Bryan KE, Morrical MD, Averill AM, **Dragon JA**, Wiegman AP, Morrical SW. 2017. Defects in recombination activity caused by somatic and germline mutations in the multimerization/BRCA2 binding region of human RAD51 protein. *DNA Repair* 60: 64–76. [PMID: 29100040](#). Impact factor: 3.61.
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42. Case LK, Wall EH, Osmanski EE, **Dragon JA**, Saligrama N, Zachary JF, Lemos B, Blankenhorn EP, and Teuscher C. 2015. Copy number variation in Y chromosome multicopy genes is linked to a paternal parent-

- of-origin effect on CNS autoimmune disease in female offspring. *Genome Biology*: 10, 16:28. [PMCID: PMC4396973](#). Impact factor: 10.5.
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 44. Sholler GS, Currier EA, Dutta A, Slavik MA, Illenye SA, Mendonca MC, **Dragon JA**, Roberts SS, and Bond JP. 2014. PCI-24781 (abexinostat), a novel histone deacetylase inhibitor, induces reactive oxygen species-dependent apoptosis and is synergistic with bortezomib in neuroblastoma. *Journal of Cancer Therapeutics and Research*: 2:21. PMID: 25520806. [PMC4266584](#). Impact factor: 0.95.
 45. Palermo M, Driscoll H, Tighe S, **Dragon JA**, Bond J, Shukla A, Vangala M, Vincent J, and Hunter T. 2014. Expression Profiling Smackdown: Human Transcriptome Array HTA 2.0 vs. RNA-Seq. *J Biomol Tech*. May; 25(Suppl): S20–S21. [PMC4162206](#). Impact factor: 2.18.
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 47. Roberts BJ, Moussawi M, Saligrama N, **Dragon JA**, and Huber SA. 2012. Sex-specific signaling through Toll-Like Receptors 2 and 4 contributes to survival outcome of Coxsackievirus B3 infection in C57Bl/6 mice. *Journal of Biological Sex Differences*: 3(1): 25. PMID: 23241283. [PMCID: PMC3586360](#). Impact factor: 6.27.
 48. Carlson LA, Tighe SW, Westcott NW, Kenefick RW, **Dragon JA**, and LeClair RJ. 2011. Changes in transcriptional output for human peripheral blood mononuclear cells following resistance exercise. *European Journal of Applied Physiology*: 11 (12): 2919-2929. [PMID: 21437602](#). Impact factor: 2.30
 49. Lescault P, Currier E, Matrajt M, Sholler G, Bond J, and **Dragon J**. 2010. A Process Providing Bioinformatics Support for Affymetrix GeneChip Experiments. *J Biomol Tech*. Sep; 21(3 Suppl): S68. [PMCID: PMC2918198](#). Impact factor: 2.18.
 50. **Dragon JA** and Barrington DS. 2009. The systematics of the *Carex aquatilis* and *Carex lenticularis* lineages: geographically and ecologically divergent sister taxa of *Carex* section *Phacocystis* (Cyperaceae). *American Journal of Botany*: 96(10): 1896–1906.

** Manuscripts 3, 24, and 10 and 39. are my most important contributions to date. Most recently and prominently, I became the genomics lead on a project to help a state institute solve an environmental mystery that led to the discovery of a new transmissible cancer (manuscript 3). This manuscript is the first of many that will come from this collaboration. For another important contribution, I was able to assist a PI with a long and productive career to successfully incorporate genomics into her research program (manuscript 24). Lastly, for another PI, I was able to help publish the first high throughput sequence data generated at UVM, plus a follow up study, in her career of research in mesothelioma (manuscripts 10 and 39). All of these manuscripts are important in that they established valuable collaborations with researchers that were a joy to work with.

In Submission

1. Victor JA, Jordan TX, Lamkin EN, Ikeh KE, Bisht P, Frere J, March A, Crompton A, Allen LP, Muoio D, Manickas-Hill ZJ, Liu J, Lefteri K, Friesen M, Lim WY, Fanning J, Martindale R, Dewitt J, DeLance N Taatjes D, Hadden MK, Fietze S, **Dragon JA**, Boucau J, Fouquerel E, Holcombe RF, Greenblatt MS, Jaenisch R, Kaminsky DA, Yu X, Hong J, Zhou P, tenOever B, Chatterjee N. 2023. Increased mutagenic vulnerability and therapeutic targeting of SARS-CoV-2. *In submission*.

I provided *lead bioinformatics support* or was *lead investigator* for the following book chapters for which I am an author/co-author. Books are sorted in order of relevance according to **Google Scholar** (as of Aug 16, 2020).

Books and Chapters

1. Marsden C, **Dragon JA**, Wallace SS, and Sweasy JB. 2017. Base excision repair variants in cancer in *Methods in Enzymology, DNA Repair Enzymes Part A & B*, ed. Eichman Brandt. Elsevier, Inc., Amsterdam, Netherlands. PMID: 28645367.
2. Alnajjar K, Ray S, Schechter AN, Senejani AG, Robison S, Criswell LA, **Dragon JA** and Sweasy JB. 2017. Base Excision Repair in the Etiology of Lupus and Cancer in *The Base Excision Repair Pathway*, ed. DM Wilson III. World Scientific: Hackensack, NJ.
3. **Dragon JA** and Barrington DS. 2008. East vs. West: monophyletic clades within the paraphyletic *Carex acuta* complex, section *Phacocystis* (CYPERACEAE) in *Sedges: uses, diversity, and systematics of the Cyperaceae*, eds. RFC Naczi and BA Ford. Monographs in Systematic Botany from the Missouri Botanical Garden: St. Louis, Missouri. Dec 22, 2008.

Other Scholarly Publications

I provided *lead or significant bioinformatics support or supervisory support* as core director for numerous projects and the following are a sample of those projects from the last decade for which my contribution was acknowledged:

1. Murphy, C.S., DeMambro, V., Fadel, S., Fairfield, H., Garter, C.A., **Rodriguez, P**, Santos-Ortega, Y., Vary, C, Reagan, M.R. Inhibition of Acyl-CoA Synthetase Long Chain (ACSL) Isozymes Decreases Multiple Myeloma Cell Proliferation, Mitochondrial Function and Affects Key Survival Pathways. PMID: PMC10979990.
2. **Curd, E.E.**, Gal, L., Gallego, R., Silliman, K., Nielsen, S. and Gold, Z., 2023. rCRUX: A rapid and versatile tool for generating metabarcoding reference libraries in R. Environmental DNA.
3. Hakimzadeh, A., Abdala Asbun, A., Albanese, D., Bernard, M., Buchner, D., Callahan, B., Caporaso, J.G., **Curd, E.**, Djemiel, C., Brandström Durling, M. and Elbrecht, V., 2023. A pile of pipelines: An overview of the bioinformatics software for metabarcoding data analyses. Molecular Ecology Resources.
4. Boyd J, Nadeau EAW, Kogut S, **Rodriguez P**, Munteneau D, O'Leary T, Filler S, Lockwood B, Cahan SH, Fietze S. Transcriptomic Analysis Pipeline (TAP) for quality control and functional assessment of transcriptomes. Res Sq [Preprint]. 2023 Oct 11:rs.3.rs-3390128. doi: 10.21203/rs.3.rs-3390128/v1. PMID: PMC10602190.
5. Peterson KL, Snyder JP, Despres HW, Schmidt MM, **Eckstrom KM**, Unger AL, Carmolli MP, Sevigny JL, Shirley DJ, Dragon JA, Thomas WK, Bruce EA, Crothers JW. Determining the impact of vaccination on SARS-CoV-2 RT-PCR cycle threshold values and infectious viral titres. Access Microbiol. 2023 Oct 20;5(10):000597.v3. doi: 10.1099/acmi.0.000597.v3. PMID: PMC10634488.
6. Drummond IY, DePaolo A, Krieger M, **Driscoll H**, **Eckstrom K**, Spatafora GA. Small regulatory RNAs are mediators of the Streptococcus mutans SloR regulon. J Bacteriol. 2023 Sep 26;205(9):e0017223. doi: 10.1128/jb.00172-23. Epub 2023 Sep 11. PMID: PMC10521355.
7. Hoffman ET, Uriarte JJ, Uhl FE, **Eckstrom K**, Tanneberger AE, Becker C, Moulin C, Asarian L, Ikonomou L, Kotton DN, Weiss DJ. Human alveolar hydrogels promote morphological and transcriptional differentiation in iPSC-derived alveolar type 2 epithelial cells. Sci Rep. 2023 Jul 25;13(1):12057. doi: 10.1038/s41598-023-37685-x. PMID: PMC10368739.
8. Drummond IY, DePaolo A, Krieger M, **Driscoll H**, **Eckstrom K**, Spatafora GA. Small regulatory RNAs are mediators of the Streptococcus mutans SloR regulon. bioRxiv [Preprint]. 2023 Jun 3:2023.06.02.543485. doi: 10.1101/2023.06.02.543485. Update in: J Bacteriol. 2023 Sep 11;:e0017223. PMID: PMC10312646.
9. Montgomery TL, **Eckstrom K**, Lile KH, Caldwell S, Heney ER, Lahue KG, D'Alessandro A, Wargo MJ, Kremontsov DN. Lactobacillus reuteri tryptophan metabolism promotes host susceptibility to CNS autoimmunity. Microbiome. 2022 Nov 23;10(1):198. doi: 10.1186/s40168-022-01408-7 PMID: PMC9685921.
10. Hinkel LA, Willsey GG, Lenahan SM, **Eckstrom K**, Schutz KC, Wargo MJ. Creatine utilization as a sole nitrogen source in Pseudomonas putida KT2440 is transcriptionally regulated by CahR. Microbiology (Reading). 2022 Mar;168(3):001145. doi: 10.1099/mic.0.001145. PMID: PMC10228380.

11. **Tighe SW**, Hayden AF, Kuentzel ML, **Eckstrom KM**, Foux J, **Vellone DL**, **Finstad KH**, **Laaguiby PK**, **Hoffman JJ**, Chittur SV. Molecular Characterization of Increased Amplicon Lengths in SARS-CoV-2 Reverse Transcription Loop-Mediated Isothermal Amplification Assays. *J Biomol Tech*. 2021 Sep;32(3):199-205. doi: 10.7171/jbt.21-3203-015. PMID: PMC8730522.
12. Unger AL, **Eckstrom K**, Jetton TL, Kraft J. Facility-dependent metabolic phenotype and gut bacterial composition in CD-1 mice from a single vendor: A brief report. *PLoS One*. 2020 Sep 21;15(9):e0238893. doi: 10.1371/journal.pone.0238893. PMID: PMC7505418.
13. Thompson AF, English EL, Nock AM, Willsey GG, **Eckstrom K**, Cairns B, Bavelock M, **Tighe SW**, Foote A, Shulman H, Pericleous A, Gupta S, Kadouri DE, Wargo MJ. Characterizing species interactions that contribute to biofilm formation in a multispecies model of a potable water bacterial community. *Microbiology (Reading)*. 2020 Jan;166(1):34-43. doi: 10.1099/mic.0.000849. Epub 2019 Oct 4. PMID: PMC7137775.
14. Unger AL, **Eckstrom K**, Jetton TL, Kraft J. Colonic bacterial composition is sex-specific in aged CD-1 mice fed diets varying in fat quality. *PLoS One*. 2019 Dec 18;14(12):e0226635. doi: 10.1371/journal.pone.0226635. PMID: PMC6919604.
15. Choudhary RK, Choudhary S, Mukhopadhyay CS, Pathak D, Verma R. 2019. Deciphering the transcriptome of prepubertal buffalo mammary glands using RNA sequencing. *Funct Integr Genomics*;19(2):349-362. doi:10.1007/s10142-018-0645-5.
16. Fortner KA, Bond JP, Austin JW, Boss JM, Budd RC. 2017. The molecular signature of murine T cell homeostatic proliferation reveals both inflammatory and immune inhibition patterns. *J Autoimmun*;82:47-61. doi:10.1016/j.jaut.2017.05.003.
17. Farina NH, JE Ramsey, ME Sands, TP Ahern, DJ Shirley, JL Stein, GS Stein, JB Lian, and Wood ME. 2017. Development of a predictive miRNA signature for breast cancer risk among high-risk women. *Oncotarget* 8 (68):112170-112183. PMID: PMC5762501.
18. Nock AM, and Wargo MJ. 2016. Choline Catabolism in *Burkholderia thailandensis* Is Regulated by Multiple Glutamine Amidotransferase 1-Containing AraC Family Transcriptional Regulators. *J Bacteriol* 198 (18):2503-14. PMID: 27381916.

Abstracts

Year	Abstract	Mentored
2026	Dragon, JA , Clarke Z, Henderson M, Gori K, and EP Murchison. Melanoma in a benthic catfish species represents a new transmissible cancer with multiple lineages. <i>Biology of Genomes</i> . Cold Spring Harbor, May 5-9, 2026.	
2025	Tennessee Miller, Makayla Swaciak, Emily Guswa, Laura Ann Nicolai, Julie Dragon , Lynn Blevins. COVID-19 Subvariant Diversity in Vermont K-12 School Outbreaks During the Delta-dominant Period. Council of State and Territorial Epidemiologists National Conference.	*
2024	Dragon, Julie and Emily Guswa. Shining light on a dark mystery: Melanoma in benthic bullhead fish in Lake Memphremagog. Oxford Nanopore Ltd London Calling 2024, May 22-24, London UK.	
2024	Emily Curd, James Lubkowitz, Kirsten Tracy, Kristiaan Finstad, Scott Tighe, Sydney Cohn Guthrie, Bin Deng, <i>Roxana del Rio-Guerra</i> , Wai Lam, Heather Driscoll, Julie Dragon , Christopher Franklyn, Adam Weaver, Shane Lamos, and Ruth Fabian-Fine. The structural failure of aquaporin 4 expressing Tanycytes may be the underlying cause for neurodegeneration in Alzheimer patients. 9th National IDEA Symposium of Biomedical Research Excellence (NISBRE), June 16-19, 2024, Washington Hilton, Washington DC	*
2024	Lafferty A, Curd E, Campbell J, Dragon JA , Nicolai LA, Blevins L. Capture-Recapture Analysis of Two Related COVID-19 Outbreaks Utilizing Contact	*

- Tracing and Public Repository Sequencing Data to Estimate Outbreak Size. Council of State and Territorial Epidemiologists (CSTE) Annual Conference, Pittsburgh, June 9-13, 2024.
- 2023 Lynn Blevins MD (presenting author), Emily Curd, Jen Campbell, Allison Lafferty, **Julie Dragon**, Laura Ann Nicolai: Using a Molecular Lens to Refine Field Epidemiology: A Dual Description of Related Community Outbreaks of COVID-19. Northeast Epidemiology. November 30-December 1, 2023. *
- 2023 Lafferty A, Campbell J, **Dragon JA**, Nicolai LA, Blevins L. 2023. Using a Molecular Lens to Refine Field Epidemiology: A Dual Description of Related Community Outbreaks of COVID-19. Council of State and Territorial Epidemiologists (CSTE) Annual Conference, Salt Lake City, UT, June 25-29, 2023. *
- 2023 Schmidt M, Peterson K, Despres HW, Eckstrom K, Unger A, Snyder J, Carmolli M, Dragon J, Thomas K, Shirley DJ, Bruces EA, Crothers J. 2023. Determining SARS-CoV-2 RT-PCR cycle threshold values and infectious viral titers of clinical specimens from unvaccinated versus vaccinated individuals. American Society of Virology Annual Meeting, Athens, GA, June 24-28, 2023.
- 2020 Julie A. Dragon, George W. Bell, Chris Gates, Shannan Ho Sui, John N. Hutchinson, R. Krishna Murthy Karuturi, Alper Kucukural, Stuart Levine, Shawn Polsen, Alberto Riva, Matthew Lee Settles, and Jyothi Thimmapuram. GBIRG ontology study: which pathway analysis package will best suite my data? ABRF Annual Meeting, Palm Springs, CA. February 2020.
- 2019 Julie Dragon, John Hutchins, Alberton Riva, Matthew Lee Settles, Shannon Ho Sui, Jyothi Thimmapuram, and Stuart Levine. GBIRG bioinformatics core survey highlights the challenges facing data analysis facilities. ABRF Annual Meeting, San Antonio, TX, March 2019.
- 2019 Quigley, S, K Eckstrom, Giese A, and JA Dragon. Analysis of midgut microbiome diversity and *Borrellia* presence within *Ixodes scapularis* ticks sampled from Vermont Farms. UVM Student Research Conference, Burlington, VT, April 17th. *
- 2018 **Dragon, JA**, R Barrantes, J Hoffman, and S Tighe. Evaluation of RNA sequencing methods for use with Formalin-Fixed, Paraffin-embedded (FFPE) tissue samples. Association of Biomolecular Resource Facilities annual meeting, Myrtle Beach, SC, April 21-24.
- 2015 Sidiropoulos N, Crothers J, Balla A, **Dragon JA**, and F Carr. Molecular Tumorigenesis of Papillary Thyroid Microcarcinoma. 15th International Thyroid Conference. Oct. 18th.
- 2014 **Dragon JA**, Thompson JK, MacPherson MB, and A Shukla. Differential susceptibility of human pleural and peritoneal mesothelial cells to asbestos exposure. Beyond the Genome, Harvard University, Boston, MA, Oct 8-10th.
- 2014 Hobbs, DJ, Dutta A, **Dragon JA**, Bond JP, DeCou JM, and G Sholler. Considerations in personalized medicine studies: the effect of tissue handling on RNA integrity and expression profiling from resected pediatric cancers. American Physician Scientist Association Annual Meeting, Chicago, IL. April.
- 2013 Lescault P, **Dragon JA**, Bond JP, Ingersoll R, and G Sholler. Reproducibility of the Neuroblastoma Gene Target Analysis Platform. The Eastern North American Region of the International Biometric Society Annual Meeting, Orlando, FL, Mar 10-13th. *

2012 Lescault P, **Dragon JA**, Bond JP, Ingersoll R, and G Sholler. Reproducibility of the Neuroblastoma Gene Target Analysis Platform. Beyond the Genome, Harvard University, Boston, MA, Sept 27-29th. *

Patents Issues for Pending – *Pending*; Filing date: TBD; Title: Zero Gravity Pipette Containment System; Co-inventors: Scott Tighe, Kirsten Tracy, Jake Kittell, Carl Silver

Other Creative Activities

Years	Service Role	Role: Ave hrs/yr
2019	Annual Core Facilities Open House	Organizer: 10
2015	Across The Fence television program	Interviewee: 6
2015	University of Vermont Medical Center Innovation Blog	Contributor, 2 parts: 10

INVITED PRESENTATIONS

Regional –

Lafferty A, Curd E, Campbell J, **Dragon JA**, Nicolai LA, Blevins L. Capture-Recapture Analysis of Two Related COVID-19 Outbreaks Utilizing Contact Tracing and Public Repository Sequencing Data to Estimate Outbreak Size. Council of State and Territorial Epidemiologists (CSTE) Annual Conference, Pittsburgh, June 9-13, 2024. **Dragon, JA**, C Gates, S Ho Sui, J Hutchins, K Karuturi, S Polsen, A Riva, ML Settles, J Thimmapuram and S Levine. Bioinformatics core surveys highlight the challenges facing data analysis facilities. Northeast Regional IDeA Conference, Bretton Woods, NH, Aug 14th, 2019.

Dragon, JA, and R del Rio-Guerra. The Long Path to Sustainability: Looking for Solutions Beyond Economic Profitability. Northeast Regional Life Sciences Core Directors annual conference. University of Massachusetts Amherst, Oct 23rd, 2018.

Dragon, JA. Missing heritability and mixed messages: the search for genomic evidence of cancer risk and prevention. UVMCC Women’s Health and Cancer Conference, Burlington, VT, Oct 5th, 2018.

Dragon, JA, MA Slavik, DJ Seward, SS. Wallace, M Sands, KK Landry, and ME Wood. Genomic Investigation of Discordant Sister Pairs from High Risk Breast Cancer Families. UVMCC Rural Health Conference, Burlington, VT, April 20th, 2018.

Dragon, JA. Bioinformatics in the era of genomics. Invited speaker, TriBeta Seminar Series, St. Michael’s College, Colchester, VT, February 27th, 2018.

Dragon JA. Bioinformatics, Computational Biology, Complex Systems, *session speaker and panelist*. Northeastern Regional Life Science Core Directors meeting. Aug 18th, 2017.

Malaby A, **JA Dragon**, J Bond, and S Doublé. Structural and Biochemical Studies of Cancer Variants of Human Polymerase Theta. Vermont Cancer Center Symposium on Clinical and Translational Research Symposium. Apr 29th, 2016.

Delany C, S Tighe, D Shirley, **JA Dragon**, R Budd, and A Giese. Metagenomic Assessment of Black-legged Tick Midgut Microbiome. Annual Vermont Genetics Network Career Day, Apr 13th, 2016.

Dragon JA, Shirley D, Barrantes R, Slavik M, and J Bond. UVM Bioinformatics Shared Resource. New England Regional Shared Resources Conference, Norris Cotton Cancer Center, Nov 12th, 2015

Dragon JA, Cole B, and S Brown. Experimental Design for –Omics. Plenary session organizer for the Northeastern Regional Life Science Core Directors Meeting. Oct 16th, 2015.

Bond J and **JA Dragon**. Genomics and Bioinformatics: Emerging Roles in the Biomedical Sciences. Norwich University. Nov 2010.

Dragon JA. The systematics of the *Carex aquatilis* group (Cyperaceae): ecological speciation in a widespread wetland sedge. Middlebury College Biology Department Saul Lecture Series, Oct 2006.

Dragon JA. The systematics of the *Carex aquatilis-lenticularis* group: phylogeny, biogeography, and a taxonomic revision of the group in North America. Presented to the New England Botanical Club, Cambridge, MA, Apr 15th, 2004.

National –

- Dragon, JA.** What's fishy in New England: Melanoma in a benthic catfish species represents a new transmissible cancer. University of Cambridge, Cambridge, UK. December 10, 2025.
- Lafferty A, Curd E, Campbell J, **Dragon JA**, Nicolai LA, Blevins L. Capture-Recapture Analysis of Two Related COVID-19 Outbreaks Utilizing Contact Tracing and Public Repository Sequencing Data to Estimate Outbreak Size. Council of State and Territorial Epidemiologists (CSTE) Annual Conference, Pittsburgh, June 9-13, 2024.
- Dragon, JA**, GW Bell, C Gates, S Ho Sui, JN Hutchinson, R Krishna Murthy Karuturi, A Kucukural, S Levine, S Polsen, A Riva, ML Settles, and J Thimmapuram. GBIRG ontology study: which pathway analysis package will best suite my data? ABRF Annual Meeting, Palm Springs, CA, Mar 2020.
- Dragon, JA**, J Hutchins, A Riva, ML Settles, S Ho Sui, J Thimmapuram, and S Levine. GBIRG bioinformatics core survey highlights the challenges facing data analysis facilities. Association of Biomolecular Research Facilities Annual Meeting. San Antonio, TX, Mar 23rd, 2019.
- Dragon, JA.** The Vermont Integrative Genomics Resource: the life and times of a small research core facility in the age of genomics and big data. National Institute of Health Intramural Sequencing Center, Rockville, MD, Jun 27, 2018.
- Diehl SA, **JA Dragon**, N Vila-Santana, J Hoffman, T Hunter, DM Dickson, BA Finette, ER Colgate, U Nayak, R Haque, WA Petri Jr., and BD Kirkpatrick. Weight-for-age growth-rate failure in infants is associated with an altered blood gene expression profile indicating reduced immune responsiveness. American Society of Tropical Medicine and Hygiene Conference on Immunonutrition, Apr 19th 2016.
- Shukla A, PB Munson, JK Thompson, **JA Dragon**, MB MacPherson and H Peinado. Unique pleural vs peritoneal mesothelioma exosomal signature: does mesothelial cell susceptibility to asbestos matter? American Association of Cancer Research Annual Meeting, Apr 16-20, 2016.
- YongLi J, Rounds T, **Dragon JA**, Bond J, Wallace S, Sweasy J, and M Wood. The DNA repair landscape of discordant sibling pairs of women from hereditary breast cancer families. American Society of Clinical Oncology Annual Meeting. May 29th, 2015.
- Dragon JA**, Ashton P, Dean M, Cayouette J, and MJ Waterway. Hybridization and ecological speciation in the salt tolerant *Carex aquatilis* lineage (Cyperaceae). American Botanic Society Annual Meeting, Snowbird, Utah, Aug 2009.
- Dragon JA**, and DS Barrington. The phylogeny and biogeography of the *Carex aquatilis* group, section *Phacocystis* (Cyperaceae). American Institute of Biological Sciences Annual Meeting, Chico, California, Aug 2006.
- Dragon JA**, and DS Barrington. 2002. The systematics of the *Carex acuta* complex. American Institute of Biological Sciences Annual Meeting, Madison, Wisconsin, Aug 2002.

International –

- Dragon, Julie A.** What's fishy in New England: Melanoma in a benthic catfish species represents a new transmissible cancer. University of Cambridge, Cambridge, UK, December 9, 2025.
- Dragon, Julie** and Emily Guswa. Shining light on a dark mystery: Melanoma in benthic bullhead fish in Lake Memphremagog. Oxford Nanopore Ltd London Calling 2024, May 22-24, London UK.
- Sidiropoulos N, Crothers J, Balla A, **Dragon J**, and **Carr FE**. Molecular Tumorigenesis of Papillary Thyroid Microcarcinoma. International Thyroid Congress, Orlando FL. Oct 2015.
- Krebs K, **JA Dragon**, M Rincon, L Haynes, C Teuscher, and EA Bonney. Gene expression profiles of lung epithelial cells from neonatal, adult and aged mice show age and sex-related differences. Society for Reproductive Investigation Annual Meeting, Montreal QBC, Mar 16-19, 2016.
- Dragon JA**, and MJ Waterway. Exploring the sectional boundaries of *Carex* section *Phacocystis* (Cyperaceae). Monocots IV Conference, Copenhagen, Denmark, Aug 2008.