CURRICULUM VITAE

Robert A. Quinn, PhD

Associate Professor with tenure
Department of Biochemistry and Molecular Biology
Department of Microbiology, Genetics and Immunology
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Personal Statement – Microbiomes are diverse consortia of microorganisms associated with all macroorganisms on this planet, including humans. Though recent research has revealed which microorganisms make up our microbiome, how they function to shape health and disease is more poorly understood. My laboratory focuses on understanding the function and dynamics of microbiomes and how they use small molecule chemistry to interact with their hosts. Using multi-omics methods, culture microcosms, animal models, and microbial ecology theory, my laboratory aims to decipher the language of this molecular crosstalk and use that knowledge to promote human and animal health. Our group focuses on three microbiomes of interest: the human lung, human gut, and coral reefs.

Since establishing my laboratory at Michigan State University in 2018, I have developed an active and productive research group studying human and animal microbiomes. I have given seminars at international meetings, published dozens of articles in the world's best journals, developed national and international collaborations, and received over $7 million in US federal funding to support our work.

CURRENT POSITION

Associate Professor (Tenured). Department of Biochemistry and Molecular Biology and Department of Microbiology, Genetics and Immunology. Michigan State University.
June-2024 – Present.

Assistant Professor. Department of Biochemistry and Molecular Biology. Michigan State University.
Start date August 16, 2018.

PAST POSITIONS

Associate Project Scientist. University of California at San Diego. Specialization: Multi-omics research on human and animal disease. June 2017-July 2018.

Assistant Project Scientist. University of California at San Diego. Specialization: Multi-omics research on human and animal disease. May 2015-June 2017.

POSTDOCTORAL POSITION

Postdoctoral Scholar. San Diego State University. Specialization: Microbial Ecology of Cystic Fibrosis. Fellowship funding awarded by the Cystic Fibrosis Research Inc. May 2012-May 2015.

EDUCATION

PhD. in Environmental and Evolutionary Biology, University of Louisiana at Lafayette, Lafayette, Louisiana, 2008 – 2012.
Specialization: Microbiology of Aquatic Animal Disease.
Advisor: Dr. Andrei Y. Chistoserdov.
Dissertation: Shell Disease in the American Lobster (*Homarus americanus*): Microbiology and Microbial Ecology of a Complex Polymicrobial Disease

M.Sc. in Microbiology, University of Guelph, Guelph, Ontario, 2005-2007.
Specialization: Molecular and Microbiological Diagnostics of Finfish Disease.
Advisor: Dr. Roselynn M.W. Stevenson
Thesis: Non-lethal Detection of Bacterial Fish Pathogens with DGGE and the Molecular Epizootiology of *Aeromonas salmonicida*

B.Sc. Microbiology with Honors, University of Guelph, Guelph, Ontario, 2001 - 2005.
Department of Molecular and Cellular Biology. Specialization in Microbiology and Molecular Biology of Bacteria, Fungi and Viruses.

FUNDING AND AWARDS

Awards

Michigan State College of Human Medicine. Early Career Research Award. Nov 2025.
Metabolomics Association of North America Early Rising Star Award. Oct 2021.
Cystic Fibrosis Research Innovation Award. (PI). Vertex Pharmaceuticals. July 2016- July 2017.
Elizabeth Nash Memorial Postdoctoral Fellowship. Cystic Fibrosis Research Inc. May 2012-May 2015

Current Funding

NIH R01DK140854. (PI). 08/01/2024-05/31/2029. Prioritization and Bioactivity Characterization of Novel Bile Acids Produced by the Microbiome. $2,558,294
Corewell Health MSU Alliance (PI). 02/01/23-02/01/2026. Determining the Role of Small Molecule Virulence Factors from *Pseudomonas aeruginosa* in Chronic Lung Allograft Dysfunction (PI). $386,000.
National Science Foundation (PI). 08/15/2023-08/14/2027. The Role of Betaine Lipid Biochemistry in Coral Thermal Tolerance. $1,890,000

Past Funding

NIH RO1AI145925 (PI). 07/17/2019-06/30/2025 – National Institute of Allergy and Infectious Diseases. Determining how a dynamic microbiome contributes to cystic fibrosis lung disease. $2,653,163 direct cost. Renewal pending.
Global Grants for Gut Health (PI). 05/31/2022 – 05/30/2023. Understanding the Role of Microbially Conjugated Bile Acids in the Developing Mammalian Gut. $109,683.
Tetrad MSU Internal (PI). 07/01/2024-06/30/2025. Determining the Breadth of Acyl Conjugation by Bile Salt Hydrolase from the Human Gut Microbiome. $30,000 direct costs.
NIH R03HD101654 – (Co-PI). 09/16/2020 – 08/31/2022. Determination of the microbiome of growth restricted mice. $156,500
Corewell Health Digestive Disease Institute (PI). 02/01/2023-12/31/2023. Microbially Conjugated Bile Acids in the Upper GI Tract. $11,000
California Prune Industry (Co-PI). September 2020 – September 2022. Collaborative with Dr. Laura McCabe, MSU. Establishing the role of dried plums in the prevention of glucocorticoid induced osteoporosis in mice. $200,000
USDA Agriculture and Food Research Initiative Foundational Applied Sciences Program. (Co-PI). February 2020 – January 2023. Impact of dietary flavones from whole foods on gut microbiome, adipose tissue, macrophages – crosstalk in reducing obesity-induced inflammation. $499,999.99.
Cystic Fibrosis Foundation Research Grant (Co-PI). January 2019. Collaborative grant with Dr. Ryan Hunter (PI), University of Minnesota. *In vivo* microbial activity associated with CF CLAD. $120,000
Accelerating Innovations to Market Grant. (PI). April 2017.
$20,000 of funds to advance Rapid Response Precision Microbiome to commercialization.
Cystic Fibrosis Research Innovation Award. (PI). Vertex Pharmaceuticals. July 2016- July 2017. $100,000 research funding
Elizabeth Nash Memorial Postdoctoral Fellowship. May 2012-May 2015 (PI).
$120,000 total salary funding for three years.
Postdoctoral fellowship grant from the Cystic Fibrosis Research Inc. to work in Dr. Forest Rohwer's lab at San Diego State University
Award Extended August 2014. Based on a proposal submitted to continue the research.

PUBLICATIONS

***Denotes Quinn RA as corresponding author**

2026

90. Mallard de La Varende AL, Tian AL, Thomas S, Lahmar I, Messaoudene M, Li S, Motiño O, Guillaume-dit-Taunière H, Iebba V, Hurtado Y, Pham TN, Thélémaque C, Araujo-Voces M, Suissa D, Ly P, Reich E, Vitali G, Arlunno BT, …Rummel D, Fu Y, **Quinn RA,** Alves Costa Silva C, Iacovelli R, Ciccarese C, Porcari S, Elkrief A, Routy B, Ianiro G, Derosa L, Kroemer G, Fidelle M, Zitvogel L. Subclinical cholestasis is a hallmark of gut dysbiosis causing resistance to cancer immunotherapy. ***Cancer Cell***. 2026. 44(8):P1653-1671.
89. Figueiredo da Costa VH, Karunarathne P, Borelli TC, Amatto IV, Lima Ortega M, **Quinn RA*,** da Silva RR*. ClusterApp to visualize, organize, and navigate metabolomics data. 2026. ***PLOS Comp Biol.*** 22(7): 31014586.
88. Shivaiah KK, Rosset SL, **Quinn RA***. Microbe Profile: *Durusdinium trenchii*: a thermotolerant coral symbiont. ***Microbiology***. 172(5):001679.
87. Dunham S, Willkeen G, Darby B, Corley JM, Hahn H, Klapper I, Bean HD, Caverly LJ, Thornton CS, Martin C, **Quinn RA**, Widder S, Bailey B, Wagner BD, Garg N, Planet PJ, Hunter RC, LiPuma JJ, Rohwer F, Whiteson KL. 2026. The guild model of CF airway microbial ecology. ***mBio.*** e03668.
86. Dean AED, Guzior DV, **Quinn RA**, Gaulke CA, Anakk S. 2026. Serum cholic acid and cecal *Faecalibaculum* increase in a male specific manner in a murine hepatocellular carcinoma model. ***Journal of Lipid Research***. 67:100954.

2025

85. Roach TNF, Drury C, Caruso C, Hancock JR, Martin C, Neugebauer K, Majerova E, Matsuda SB, McClintock R, Santoro EP, van der Geer A, Varela A, **Quinn RA***. 2025. Intergenerational metabolomic signatures of bleaching resistance in corals. ***Nature Communications***. 16(1):5971.
84. Graf M, Murgueitio N, Sheridan MA, **Quinn RA**, Carlson AL, Vogel SC, Styner MA, Alex AM, Stephens RL, Roach J, Sagarnaga N, Mills-Koonce WR, Azcarate-Peril MA, Short SJ, Knickmeyer RC, Propper CB. 2025. Gut microbiome is associated with insula structure in neonates. ***Physiology and Behavior.*** 115001.
83. Gonzalez C, Martin C, Crane M, Gutierrez K, Thomas J, Remisoski L, Okros M, Fu Y, Guzior DV, Finkhouse D, Bridges C, Mielke J, Querido G, Padillo L, Girgis R, McClelland M, Conrad D, Li X, **Quinn RA***. 2025. Microenvironmental effects of a non-antibiotic therapy for a chronic polymicrobial infection alters microbial physiology, competition and virulence. ***ISME J.*** wraf125. ISMEJ Editors Pick: Article Feature Editor's Pick
82. Karunarathne PH, Bridges C, Remioski L, Crane M, Soria Casanova C, Kinne SN, Bahena AC, Gil M, Padillo L, Querido G, Mielke J, McClelland M, Conrad C, **Quinn RA***. 2025. Linking volatile metabolites from bacterial pathogens to exhaled breath condensate in people with cystic fibrosis. ***Microbiology***. 171(2):001536.
81. Fu Y, Guzior D, Okros M, Bridges C, Rosset S, Gonzalez C, Martin C, Karunarathne H, Watson V. and **Quinn RA***. 2025. Balance between bile acid conjugation and hydrolysis activity can alter outcomes of gut inflammation. ***Nature Communications***. 16(1):3434.
80. Tortorelli GT, Rosset SL, Clarisse ES, Woo S, Johnston EC, Walker N, Hancock JR, Caruso C, Varela AC, Hughes K, Martin C, **Quinn RA**, Drury C. 2025. Heat-induced stress modulates cell surface glycans and membrane lipids of coral symbionts. ***ISME J.*** 19(1):wraf073.
79. Won TH, Arifuzzaman M, Parkhurst CN, Miranda IC, Zhang B, Hu E, Kashyap S, Letourneau J, Jin W-B, Fu Y, Guzior D V, **Quinn RA**, Guo C-J, David LA, Artis D, Schroeder FC. 2025. Host metabolism balances microbial regulation of bile acid signaling. ***Nature***. 638:216-224.

2024

78. Wu H, Guzior D V., Martin C, Neugebauer KA, Rzepka MM, Lumeng JC, **Quinn RA***, de los Campos G. 2024. Longitudinal analyses of infants' microbiome and metabolome reveal microbes and metabolites with seemingly coordinated dynamics. ***Communications Biology*** 2024 7:1 7:1–10.
77. Martin C, Mahan KS, Wiggen TD, Gilbertsen AJ, Hertz MI, Hunter RC, **Quinn RA***. 2024. Microbiome and metabolome patterns after lung transplantation reflect underlying disease and chronic lung allograft dysfunction. ***Microbiome*** 2024 12:1 12:1–12.
76. Vasco KA, Hansen ZA, Schilmiller AL, Bowcutt B, Carbonell SL, Ruegg PL, **Quinn RA**, Zhang L, Manning SD. 2024. Untargeted metabolomics and metagenomics reveal signatures for intramammary ceftiofur treatment and lactation stage in the cattle hindgut. ***Front Mol Biosci*** 11:1364637.

75. Hansen ZA, Schilmiller AL, Guzior DV, Rudrik JT, **Quinn RA**, Vasco KA, Manning SD. 2024. Shifts in the functional capacity and metabolite composition of the gut microbiome during recovery from enteric infection. ***Front Cell Infect Microbiol***. 14:1359576.
74. Williams J, Pettorelli N, Hartmann AC, **Quinn RA**, Plaisance L, O'Mahoney M, Meyer CP, Fabricius KE, Knowlton N, Ransome E. 2024. Decline of a distinct holobiont community under ocean acidification. ***Microbiome***. 12(1):75.
73. Chargo NJ, Neugebauer K, Guzior DV, **Quinn RA**, Parameswaran N, McCabe L. 2024. Glucocorticoid-induced osteoporosis is prevented by dietary prune in female mice. ***Front Cell Dev Biol***. 11:1324649.
72. Guzior DV, Okros M, Shivel M, Armwald D, Bridges C, Fu Y, Martin C, Schilmiller A, Miller WM, Ziegler K, Sims M, Maddens ME, Graham SF, Hausinger RP, **Quinn RA***. 2024. Bile salt hydrolase acyltransferase activity expands bile acid diversity. ***Nature***. 626:852-858.
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2023

71. Martin C., Guzior, DV, Gonzalez CT, Orkos M, Mielke J, Padillo L, Querido G, Gil M, Thomas R, McClelland M, Conrad D, Widder S and **Quinn RA***. 2023. Longitudinal microbial and molecular dynamics in the cystic fibrosis lung after Elexacaftor–Tezacaftor–Ivacaftor therapy. ***Respir Res.*** 24, 317.
70. Roach TNF, Matsuda SB, Martin C, Huckeba G, Huckeba J, Kahkejian V, Santoro EP, van der Geer A, Drury C, **Quinn RA**. 2023. Single-Polyp metabolomics reveals biochemical structuring of the coral holobiont at multiple scales. ***Commun Biol.*** 6(984).
69. **Quinn RA*,** Martin C, Guzior D. A multiomic trip through the human gut. ***Nat Metabol***. 2023. doi.org/10.1038/s42255-023-00773-3
68. Kang HJ, Chargo N, Chennupati S, Neugebauer K, Cho JY, **Quinn RA**, McCabe L, Parameswaran N. 2023. Korean Red Ginseng extract treatment prevents post-antibiotic dysbiosis-induced bone loss in mice. ***J Ginseng Res***. 47:265-273.

2022

67. Neugebauer KA, Okros M, Guzior DV, Feiner J, Chargo NJ, Rzepka M, Schilmiller AL, O'Reilly S, Jones AD, Watson VE, Luyendyk JP, McCabe L, **Quinn RA*.** 2022. BAAT gene knockout alters early life development, the gut microbiome and reveals unusual bile acids in mice. ***J Lipid Res***. 63(12):100297.
66. Quinn MA, Pritchard AE, Visker JR, McPeek AC, Raghuvanshi R, Martin H C, Wellette-Hunsucker AG, Leszczynski EC, McCabe LR, Pfeiffer KA, **Quinn RA**, Ferguson DP. 2022. Longitudinal effects of growth restriction on the murine gut microbiome and metabolome. ***Am J Physiol Endocrinol.*** 323:E159–E170
65. Kang HJ, Chargo N, Chennupati S, Neugebauer K, Cho JY, **Quinn RA**, McCabe LR, Parameswaran N. 2022. Korean red ginseng extract treatment prevents post-antibiotic dysbiosis-induced bone loss in mice***. J Ginseng Res***. 47(2):265-273.
64. Drury C, Bean NK, Harris CI, Hancock JR, Huckeba J, H CM, Roach TNF, **Quinn RA**, Gates RD. 2022. Intrapopulation adaptive variance supports thermal tolerance in a reef-building coral. ***Commun Biol*** 5:486.
63. Ghuneim L-AJ, Raghuvanshi R, Neugebauer KA, Guzior D v, Christian MH, Schena B, Feiner JM, Castillo-Bahena A, Mielke J, McClelland M, Conrad D, Klapper I, Zhang T, **Quinn RA***. 2022. Complex and unexpected outcomes of antibiotic therapy against a polymicrobial infection. ***ISME J*** 16:2065–2075.
62. Mills RH, Dulai PS, Vázquez-Baeza Y, Sauceda C, Daniel N, Gerner RR, Batachari LE, Malfavon M, Zhu Q, Weldon K, Humphrey G, Carrillo-Terrazas M, Goldasich LD, Bryant M, Raffatellu M, **Quinn RA**, Gewirtz AT, Chassaing B, Chu H, Sandborn WJ, Dorrestein PC, Knight R, Gonzalez DJ. 2022. Multi-omics analyses of the ulcerative colitis gut microbiome link *Bacteroides vulgatus* proteases with disease severity. ***Nat Microbiol.*** 7:262–276.

2021

61. Wurster JI, Peterson, RL, Brown CE, Penumutchu S, Guzior DV, Neugebauer K, Sano WH, Sebastian MM, **Quinn RA**, Belenky P. 2021. Streptozotocin-induced hyperglycemia alters the cecal metabolome and exacerbates antibiotic-induced dysbiosis. ***Cell Reports***. 37(11)-110-113.

60. **Quinn RA***, Higawara KA, Goudarzi M, Pathmasiri W, Sumner L, Metz TO. 2021. Bridging the gap between analytical and microbial sciences in microbiome research. ***mSystems***. E00585-21
59. Sosinski L, Martin-Hernandez C, Neugebauer K, Ghuneim L., Guzior DV, Castillo-Bahena A, Mielke J, Thomas R, McClelland M, Conrad D, **Quinn RA***. 2021. A restructuring of microbiome niche space is associated with elexacaftor-tezacaftor-ivacaftor therapy in the cystic fibrosis lung. ***J Cyst Fib***. 21(6):996-1005.
58. Ho B, Ryback D, Benson B, Mason CN, Torres PJ, **Quinn RA**, Thachray VG, Kelly ST. 2021. Gut metabolites are more predictive of diseased and cohoused states than gut bacterial features in a polycystic ovary syndrome-like mouse model. ***mSystems***. 6(5):e01149-20.
57. Guzior, D and **Quinn, RA***. 2021. Microbial transformations of human bile acids. ***Microbiome***. 9: 140.
56. Little M, George EE, Arts MGI, Shivak J, Benler S, Huckeba J, Quinlan ZA, Boscaro V, Mueller B, Güemes AGC, Rojas MI, White B, Petras D, Silveira CB, Haas AF, Kelly LW, Vermeij MJA, **Quinn RA**, Keeling PJ, Dorrestein PC, Rohwer F, Roach TNF. 2021. Three-Dimensional Molecular Cartography of the Caribbean Reef-Building Coral Orbicella faveolata. ***Front Mar Sci***. doi.org/10.3389/fmars.2021.627724
55. Roach TNF, Dilworth J, Martin-Hernandex, C, Jones AD, **Quinn RA***, Drury C*. 2021. Metabolomic signatures of coral bleaching history. ***Nat Ecol Evol***. 5:495-503.
Article Featured: here1, here2, here3, and on CBC national radio here4
54. Moyne O, Castelli F, Bicout DJ, Boccard J, Camara B, Cournoyer B, Faudry E, Terrier S, Hannani D, Huot-Marchand S, Léger C, Maurin M, Ngo T-D, Plazy C, **Quinn RA**, Attree I, Fenaille F, Toussaint B, Le Gouëllec A. 2021. Metabotypes of *Pseudomonas aeruginosa* correlate with antibiotic resistance, virulence and clinical outcome in cystic fibrosis chronic infections. ***Metabolites***. 11(2):63.
53. Morton J, McDonald, D, Aksenov AA, Nothias LF, Foulds R, **Quinn RA,** Badri, MH, Swenson TL, Van Goethem MV, Northen TR, Vazquez-Baeza Y, Wang W Bokulich NA, Watters A, Song SJ, Bonneau R, Dorrestein PC, Knight, R. 2021. Reply to: Examining microbe-metabolite interactios. ***Nat. Methods***. 18:40-41.

2020

52. Lybbert AC, Williams JC, Raghuvanshi R, Jones AD, **Quinn RA***. 2020. Mining public mass spectrometry data to characterize the diversity and ubiquity of *Pseudomonas aeruginosa* specialized metabolites. ***Metabolites***. 10(11):445.
51. Aksenov AA, Laponogov I, Zhang Z, Doran SLF, Belluomo I, Veselkov D, Bittremieux W, Nothias LF, Nothias-Esposito M, Maloney KN, Misra BB, Melnik A V, Smirnov A, Du X, Jones KL, Dorrestein K, Panitchpakdi M, Ernst M, van der Hooft JJJ, Gonzalez M, Carazzone C, Amézquita A, Callewaert C, Morton JT, **Quinn RA**, et al., Scher JU, Knight R, Wang M, Hanna GB, Dorrestein PC, Veselkov K. 2021. Auto-deconvolution and molecular networking of gas chromatography–mass spectrometry data. ***Nat Biotechnol***. 39:169–173
50. Nothias L.-F, Petras D, Schmid R, Dührkop K, Rainer J, Sarvepalli A, Protsyuk I, Ernst M, Tsugawa H, Fleischauer M, …**Quinn RA**, … Dorrestein PC. 2020. Feature-based molecular networking in the GNPS analysis environment. ***Nat. Methods***. 17:905–908.
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47. Raghuvanshi R, Vasco K, Vazquez-Baeza Y, Jiang L, Morton JT, Li D, Gonzalez A, DeRight Goldasich L, Humphrey G, Ackermann G, Swafford AD, Conrad D, Knight R, Dorrestein PC, **Quinn RA***. 2020. High-Resolution longitudinal dynamics of the cystic fibrosis sputum microbiome and metabolome through antibiotic therapy. ***mSystems***. 5e00292-20.
46. Roach TNF, Little M, Arts MG, Huckeba J, Haas AF, George EE, Quinn RA, Cobian-Guemes AG,Naliboff DS, Silveira CB, Vermeij MJA, Wegley L, Dorrestein PC, Rowher F. 2020. A mutiomic analysis of in situ coral-turf algal interactions. ***PNAS***. 117(24):13588-13595.

45. Dethloff F, Vargas F, Elijah E, **Quinn RA**, Park DI, Herzog DP, Muller MB, Gentry EC, Knight R,Gonzalez A, Dorrestein PC, Turk CW. 2020. Paroxetine administration affects microbiota and bile acid levels in mice. ***Front Psychiatry***. 11:518.
44. **Quinn RA**, Melnik A V., Vrbanac A, Fu T, Patras KA, Christy MP, Bodai Z, Belda-Ferre P, Tripathi A, Chung LK, Downes M, Welch RD, Quinn M, Humphrey G, Panitchpakdi M, Weldon KC, Aksenov A, Silva R da, Avila-Pacheco J, Clish C, Bae S, Mallick H, Franzosa EA, Lloyd-Price J, Bussell R, Thron T, Nelson AT, Wang M, Leszczynski E, Vargas F, Gauglitz JM, Meehan MJ, Gentry E, Arthur TD, Komor AC, Poulsen O, Boland BS, Chang JT, Sandborn WJ, Lim M, Garg N, Lumeng JC, Xavier RJ, Kazmierczak BI, Jain R, Egan M, Rhee KE, Ferguson D, Raffatellu M, Vlamakis H, Haddad GG, Siegel D, Huttenhower C, Mazmanian SK, Evans RM, Nizet V, Knight R, Dorrestein PC. 2020. Global chemical effects of the microbiome include new bile-acid conjugations. ***Nature***. 579: 123-129.
Article Highlighted: here, here, here, here
43. Wang M, Jarmusch AK, Vargas F, Aksenov AA, Gauglitz JM, Weldon K, Petras D, da Silva R, **Quinn RA**, Melnik A V., van der Hooft JJJ, Caraballo-Rodríguez AM, Nothias LF, Aceves CM, Panitchpakdi M, Brown E, Di Ottavio F, Sikora N, Elijah EO, Labarta-Bajo L, Gentry EC, Shalapour S, Kyle KE, Puckett SP, Watrous JD, Carpenter CS, Bouslimani A, Ernst M, Swafford AD, Zúñiga EI, Balunas MJ, Klassen JL, Loomba R, Knight R, Bandeira N, Dorrestein PC. 2020. Mass spectrometry searches using MASST. ***Nat Biotechnol.*** **38**:23–26.
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2019

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36. Raghuvanshi, R, Grayson, AG, Schena, I, Amanze, O, Suwintono, K, **Quinn, RA***. 2019. Microbial transformations of organically fermented foods. ***Metabolites***. **9**(8):165
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Edwards R, Brettin T, Cantu,VA, Cuevas D, Himidi R, Dorrestein P and Rohwer F. 2019. Cystic Fibrosis Rapid Response: Translating Multi-omics data into clinically relevant information. ***mBio***. 10(2) e00431-19

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Independent PI Position Gained August 2018

2018

33. **Quinn, RA,** Comstock, W, Zhang, T, Morton, JT, da Silva, R, Tran, A, Aksenov, A, Nothias-Scaglia, L, Wangpraseurt, D, Melnik, AV, Ackerman, G, Conrad, D, Klapper, I, Knight, R, and PC Dorrestein. 2018. Niche partitioning of a pathogenic microbiome driven by chemical gradients. ***Science Advances***. 4(9):eeau1908.
Article Highlighted: here1, here2, here3
32. Knight R, Vrbanac A Taylor BC, Aksenov AA, Callewaert C, Debelius J, Gonzalez A, Kosciolek T, McCall L-I, McDonald D, Melnik AV, Morton JT, Navas J, **Quinn RA**, Sanders JG, Swafford AD, Thompson LR, Tripathi A, Xu ZZ, Zaneveld JR, Zhu Q, Caporaso JG, Dorrestein PC 2018. Best practices for analyzing microbiomes. ***Nat. Rev. Microbiol.*** **16**:410-422.
31. Galtier d'Auriac, I, **Quinn, RA**, Maughan, H, Nothias, L-F, Little, M, Kapono, C, Cobian, A, Reyes, BT, Green, K, Quistad, SD, Leray, M, Smith, JE, Dorrestein, PC, Rohwer, F, Deheyn, DD, and Aaron C Hartmann. 2018. Before platelets: the production of platelet activating factor during growth and stress in a basal marine organism. ***Proceedings of the Royal Society B***. 285:4.
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2017

30. Hartmann, AC, Petras, D, **Quinn, RA,** Protsyuk, I, Archer, FI, Ransome, EJ, Williams, GJ, Bailey, BA, Vermeij, MJA, Alexandrov, T, Dorrestein, PC, Rohwer F. 2017. Meta-mass shift chemical (MeMSChem) profiling of metabolomes on coral reefs. ***PNAS***. **114**:11685-11690.
29. **Quinn RA.*** 2017. Integrating microbiome and metabolome data to understand infectious airway disease. ***American Journal of Respiratory and Critical Care Medicine***. doi.org/10.1164/rccm.201704-0671ED, *corresponding author
28. Comstock, W J, Huh, E, Weekes, R, Watson, C, Xu, T, Dorrestein, PC, **Quinn RA***. 2017. The WinCF Model - An Inexpensive and Tractable Microcosm of a Mucus Plugged Bronchiole to Study the Microbiology of Lung Infections. ***Journal Vis Exp***. (123), e55532, doi.org/10.3791/55532. *corresponding author
27. **Quinn RA,** Hazra AY, Smolowitz R, Chistoserdov AY. 2017. Real-time PCR assay for *Aquimarina macrocephali* subsp. *homaria* and its distribution in shell disease lesions of *Homarus americanus*, Milne-Edwards, 1837, and environmental samples. ***Journal of Microbiological Methods***. 139:61-67. doi.org/10.1016/j.mimet.2017.04.001
26. Morton JT, Sanders J, **Quinn RA,** McDonald D, Gonzalez A, Vasquez-Baeza Y, Navas-Molina JA, Hyde ER, Song SJ, Metcalf JL, Lladser M, Dorrestein PC, Knight R. 2016. Balance trees provide useful insights into community structure. ***mSystems***. 10.1128/mSystems.00162-16.

2016

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24. Petras D*, Notias L-F*, **Quinn RA***, Alexandrov T, Bandiera N, Bouslimani A, Castro-Falcon G, Chen L, Dang T, Dorrestein, P, et al. 2016. The chemistry associated with built human habitats and transport. ***Analytical Chemistry***. 88(22): 10775-10784 *Denotes co-first author.
23. **Quinn RA**, Nothias L-F, Vining O, Meehan M, Esquenazi E, Dorrestein PC. 2016. Mass spectral molecular networking as a pharmaceutical, pharmacological and clinical tool. ***Trends in Pharmacological Sciences***. doi.org/10.1016/j.tips.2016.10.011
22. **Quinn RA,** Lim YW, Whiteson K, Furlan M, Conrad D, Rohwer F, Dorrestein PC. 2016. Metabolomics of Pulmonary Exacerbations Reveals the Personalized Nature of Cystic Fibrosis Disease. ***PeerJ***. doi.org/10.7717/peerj.2174

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20. Gilbert, J, **Quinn, RA,** Debelius, J, Xu, ZZ, Morton, J, Garg, N, Jansson, J, Dorrestein, PC, Knight R. 2016. Microbiome-wide association studies link dynamic microbial consortia to disease. ***Nature***. 535:94-103. doi.org/10.1038/nature18850.
19. **Quinn, RA,** Vermeij, MA, Hartmann, AC, Galtier d'Auriac, I, Benler, S, Haas, A, Quistad, SD, Lim, YW, Little, M, Sandin, S, Smith, JE, Dorrestein, PC, Rohwer F. 2016. Metabolomics of reef benthic interactions reveals a bioactive lipid involved in coral defense. ***Proceedings of the Royal Society B***. 283:20160469. doi.org/10.1098/rspb.2016.0469
Article highlighted: here1, here2
18. **Quinn, RA,** Navas-Molina, J, Hyde, E, Song, S J, Vazquez-Baeza, Y, Humphrey, G, Gaffney, J, Minich, J J, Melnik, A V, Herschend, J, DeReus, J, Durant, A, Dutton, R, Khosroheidari, M, Green, C, da Silva, R, Dorrestein, PC, Knight r. 2016. From sample to multi-omics conclusions in under 48 hours. ***mSystems***. 1(2):e00038-16. doi:10.1128/mSystems.00038-16.
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2015

16. **Quinn RA,** Phelan V P, Whiteson K, Garg N, Bailey B, Lim YW, Conrad D, Dorrestein PC, Rohwer F. 2015. Microbial, host and xenobiotic diversity in the cystic fibrosis sputum metabolome. ***ISME J***. 10(6):1483-1498. doi.org/10.1038/ismej.2015.207
15. da Silva, R, Dorrestein, P, **Quinn RA.** 2015. Illuminating the dark matter in metabolomics. ***PNAS***. 112(41): 12549-12550. doi.org/10.1073/pnas.1516878112

2014

14. **Quinn RA,** Whiteson K, Lim YW, Salamon P, Bailey B, Meinardi S, Sanchez S, Blake D, Conrad D Rohwer F. 2014. A Winogradsky-based culture system reveals an association between microbial fermentation and cystic fibrosis exacerbation. ***ISME J***. 9(4):1024-1038.
13. **Quinn RA,** Alexandrov T. 2014. The community ecology of microbial molecules. ***Journal of Chemical Ecology***. 40(11):1161-1162.
12. **Quinn RA,** Lim YW, Maughan H, Conrad D, Rohwer F, Whiteson K. 2014. Biogeochemical forces shape the composition and physiology of polymicrobial communities in the cystic fibrosis lung. ***mBio***. 5(2):e00956-13. doi:10.1128/mBio.00956-13
Article Highlighted in: Molloy, S. 2014. A metabolic milieu. *Nat. Rev. Microbiol*. 12:315.
11. Whiteson, K, Bailey, B, Bergkessel, M, Conrad, D, Delhaes, L, Felts, B, Harris, JK, Hunter, R, Lim, YW, Maughan, H, **Quinn, RA,** Salamon, P, Sullivan, J, Wagner, B, and PB Rainey. 2014. The upper respiratory tract as a microbial source for pulmonary infections in cystic fibrosis patients: parallels from island biogeography. ***American Journal of Respiratory and Critical Care Medicine.*** 189(11):1309-1315.
10. Whiteson, K, Meinardi, S, Lim, YW, Schmieder, R, Maughan, H, **Quinn, RA,** Black, D, Conrad, D, and F Rohwer. 2014. Breath gas metabolites and bacterial metagenomes from cystic fibrosis airways indicate active pH neutral 2,3-butanedione fermentation. ***ISME J***. 8:1247-1258.
9. Smolowitz, R, **Quinn**, **RA**, Cawthorn, RJ, Summerfield, RL, Chistoserdov AY. 2014. Pathology of two forms of shell disease in the American lobster (*Homarus americanus*, Milne Edwards) in Atlantic Canada. ***Journal of Fish Diseases***. 37:577-581.

2013

8. Cheng-Chi Hsu, El Naggar, M, Peng, Y, Fang, J, Sanchez, LM, Mascuch, S, Møller, A, Alazzeh, E K, Pikula, J, **Quinn**, **RA**, Zeng, Y, Wolfe, BE, Dutton, RJ, Gerwick, L, Zhang, L, Liu, X, Månsson, M,

Dorrestein PC. 2013. Real-Time Metabolomics on Living Microorganisms Using Ambient Electrospray Ionization Flow-Probe. ***Analytical Chemistry***. 85(15):7014-7018.

7. **Quinn, RA,** Cawthorn, RJ, Summerfield, RL, Smolowitz, R, Chistoserdov AY. 2013. Bacterial communities associated with lesions of two forms of shell disease in the American lobster (*Homarus americanus*, Milne Edwards) from Atlantic Canada. ***Canadian Journal of Microbiology***. 59(6):380-390.
6. **Quinn, RA,** Smolowitz, RM, Gubbala, SL, Chistoserdov AY. 2013. Culture-independent analysis of bacterial communities in the hemolymph of American lobsters with epizootic shell disease using PCR-DGGE. ***Diseases of Aquatic Organisms***. 103:141-148.

2012

5. **Quinn, RA,** Metzler, A, Smolowitz, R M, Tlusty, M, Chistoserdov AY. 2012. Exposures of *Homarus americanus* shell to three bacteria isolated from naturally occurring epizootic shell disease lesions. ***Journal of Shellfish Research***. 31(2):485-493.
4. Chistoserdov, A, **Quinn, RA,** Gubbala, SL, Smolowitz R. 2012. Bacterial communities associated with lesions of shell disease in the American lobster (*Homarus americanus,* Milne-Edwards). ***Journal of Shellfish Research***. 31(2):449-462.
3. **Quinn, RA,** Metzler, A, Tlusty, M, Smolowitz, RM, Leberg, P, Chistoserdov AY. 2012. Lesion bacterial communities of American lobsters with diet induced shell disease. ***Diseases of Aquatic Organisms***. **98:221-233.**
2. **Quinn, RA,** R. Stevenson**.** 2012. Denaturing gradient gel electrophoresis for nonlethal detection of *Aeromonas salmonicida* in salmonid mucus and its potential for other bacterial fish pathogens. ***Canadian Journal of Microbiology***. 58(5):563-571.

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1. **Quinn, RA,** Smolowitz, RM, Chistoserdov AY. 2009. Analysis of eukaryotic communities of American lobsters with epizootic shell disease using PCR-DGGE. ***Journal of Shellfish Research.*** 28:913-922.

PATENTS

Quinn, R. A., Melnik, A., Aksenov, A.A, and P. Dorrestein. 2019. Assignment. Bile Acids, Synthesis and Use in Disease. *Patent UCSD Reference Number: SD2019-209. US11980645B2*

ACADEMIC SERVICE

GRANT REVIEW PANELS

NIH Interspecies Microbial Interactions and Infections Study Section, ***Standing Member as of August 2026***
NIH ZRG DCAI-U Special Emphasis Panel. Discovery and Optimization of Immunotherapies. July, 2026
NIH Gastroenterology in Disease Grant Review Panel, July 2025
NIH Cystic Fibrosis Translational Research Center Grant Panel, Nov 2024
NIH F31 Graduate and Postdoctoral Fellowship Panel, June 2024
Cystic Fibrosis Canada, Research Grant Review, Jan 2024
NIH Microbiome Special Interest Panel, 2022, three grants reviewed for special interest panel
NIH Infectious Disease Panel, 2021, four grants reviewed as temporary panel member
NIH SBIR-STTR Lung Disease Drug Development, 2021, four grants reviewed for business plan panel
NSF Rules of Life Symbiosis Panel Member, 2020, Four grants reviewed as full panel member
NSF Ad Hoc, Microbiome Metabolites, 2021, Reviewed one grant
Cystic Fibrosis Research Inc., Lung Microbiome Expert Review, 2023, Two grants reviewed

EDITORIAL SERVICE

Microbiology (Editor, 2021-Present, 5-8 manuscripts/year)
Frontiers in Microbiology (Guest Editor)
Metabolites (Guest Editor)

MANUSCRIPT REVIEW

Nature
Cell
Nature Communications
Science Advances
American Journal of Respiratory and Critical Care Medicine
Coral Reefs
mSystems
Clinical Toxicology
Journal of Cystic Fibrosis
Frontiers in Microbiology
Metabolites

TEACHING EXPERIENCE

Professor. Methods of Macromolecular Analysis and Synthesis. Michigan State University 2021 – present. Responsible for teaching mass spectrometry to graduate level students at MSU. 5-15 students, 9 contact hours

Professor. Advanced Biochemistry II. Michigan State University. 2019 - present. Responsible for senior level biochemistry class in the MSU Biochemistry and Molecular biology department. 50-100 students, 10 contact hours

Professor. Senior Seminar. Michigan State University. 2019 - present. Provide one lecture and paper assignment on bile acid metabolism. 30-40 students, 1 contact hour

Professor. Integrative Microbial Biology. Michigan State University. 2019 - present. Microbes and Microbiomes. Responsible for 2 lectures and student assignment. 15-20 students, 2 contact hours

Laboratory Instructor. San Diego State University. 2015. Molecular Microbiology Laboratory. Ran laboratory and mentored student independent research projects in an advanced molecular biology laboratory.

Teaching Assistant, University of Louisiana at Lafayette, Lafayette, Louisiana,

2010. Instructor. Taught lecture and lab for a sophomore microbiology laboratory worth 3 credit hours.

2008, 2009 and 2011. Microbial physiology and genetics class T.A. and interim instructor.

Teaching Assistant, University of Guelph, Guelph, Ontario.

2005. Introductory Microbiology Laboratory T.A. and Coordinator.
2006. Systematic Bacteriology Laboratory T.A. and Coordinator.
2007. Introductory Biology Laboratory and Grading T.A.

MENTORING EXPERIENCE

Graduate Students

Aram Koshnaw, PhD Student, September 2025 – Present.
Deklan Rummel, PhD Student, July 2025 – Present.
Laleh Dinpanzhou, PhD Student, July 2025 - Present.
Vicki Agrella, Master's Student, January 2025 – Present.
Sarah VanDiepenbos, PhD Student – March 2025 – Present.
Doug Guzior, PhD Graduate – May 2020-May 2024. Student received an MMG travel award and the Rudolph and Vera Gerhardt Outstanding Scholar award. Published 14 manuscripts, 2 first author.
Lo Sosinski, Biochemical Research Trainee Program – July 2020- June 2021. One year training pre-graduate school as BRTP student.

Postdoctoral Scholars

Kiran Shivaiah Nov 2023 - Present
Nina Rosset Jun 2023 – Present
Hansani Karunarathne Nov 2022 – June 2025
Yousi Fu, June 2022 – Present, Now Associate Professor at Nankai University, China
Cely Gonzalez Jan 2022 - July 2025
Lydia-Ann Ghuneim May 2020 - Present
Christian Martin Hernandez Nov 2019 – present
Ruma Raghuvanshi Nov 2018 – Jan 2020, Currently Postdoc at INRAE Paris France

Undergraduate Students
Currently 4 members in my lab: Thomas Cline, Lacy Remioski, Rozlyn DeReal, Kat Liang
Past over 20 members

From Underrepresented Groups
Undergraduate: MSU BRUSH program mentor, a summer program to integrate historically underrepresented students in the US in MSU human research labs
Melanie Quinones, Summer 2025, Puerto Rico, US Territory
Darnilla Samuel, Summer 2023, Virgin Islands, US Territory
Andrew Simmons, Summer 2022
Amber Hickey, Summer 2021
Justin Williams, Summer 2020 remote

Workshops and Meeting Organization

Microbes in Microbiomes. Miami, FL, Feb 18-20th. Principal organizer and host of an inaugural conference on merging classic microbiology with the modern microbiome field. Conference hosted by the British Microbiology Society.
Cystic Fibrosis Ecology and Eradication Conference. Telluride, CO, June 24-29th, 2025. Principal organizer of conference for researchers on CF.
Metabolomics Association of North America. University of Missouri. Oct 24th, 2023. Microbiome Metabolomics Workshop. Workshop organizer (could not attend due to family funeral, but organized workshop).
American Chemical Society. Division of Analytical Chemistry. Mar 26-29th, 2023. Session chair: Metabolites and Molecules from the Microbiome.
Metabolomics Association of North America. Sep 13-15th, 2020. Workshop organization committee.
Quinn, R.A. Michigan State University. Oct 12th, 2019. Campus wide GNPS Workshop**.**
Quinn, R.A. Medical School. University of Grenoble Alpes. Grenoble, France. November 22nd, 2018. GNPS for Microbiomes Workshop.
The CMI California Microbiome Meeting. Oct 6-17th, 2017. University of California at San Diego. Moderator and organizer of a meeting of over 100 microbiome researchers in California.
Quinn, R. A., Wang, M., Vasquez-Baeza, Kosciolek, T., Knight, R., Dorrestein, P. **UCSD Center for Microbiome Innovation Qiime and GNPS workshop. Aug 30th-Sep 1st.** Microbiome and Metabolome Analysis using QIIME and GNPS.
Quinn, R. A., Vasquez-Baeza, Y., Gonzalez, A., Knight, R., Dorrestein, P. **ASM microbe 2017. BCEC, New Orleans, LA. June 15, 2017.** Advanced Microbiome and Metabolome Analysis using QIIME and GNPS.
Quinn, R. A., Vasquez-Baeza, Y., Gonzalez, A., Knight, R., Dorrestein, P. **ASM microbe 2017. BCEC, New Orleans, LA. June 15, 2017.** Basic Microbiome and Metabolome Analysis using QIIME and GNPS.
The California Microbiome Initiative Meeting. Aug 12th-14th, 2016. University of California at San Diego. Moderator and organizer of a meeting of microbiome researchers in California.
Quinn, R. A., Vasquez-Baeza, Y., Gonzalez, A., Knight, R., Dorrestein, P. **ASM microbe 2016. BCEC, New Orleans, LA. June 15, 2016.** Advanced Microbiome and Metabolome Analysis using QIIME and GNPS.
Quinn, R. A., Vasquez-Baeza, Y., Gonzalez, A., Knight, R., Dorrestein, P. **ASM microbe 2016. BCEC, Boston, MA. June 15, 2016.** Basic Microbiome and Metabolome Analysis using QIIME and GNPS.
Wineing About CF. 2014-2016. Moderator and organizer of a monthly cystic fibrosis research meeting at UCSD.

Invited Talks

Digestive Disease Week. Chicago, IL, USA. May 2-5, 2026. Microbial bile acid conjugation as a new mechanism of host-microbiome crosstalk.
Keystone Conference, Banff, AB, Canada. Microbiome and Metabolites: Discovery and Function in Health and Disease. Jan 20th, 2026. Microbial bile acid conjugation as a new dialect of host-microbiome crosstalk.

Emory University Cystic Fibrosis Center and Georgia Tech Microbiology Dept., Atlanta, GA. Dec 5, 2025. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Duke University Marine Lab, Beumont, NC. April 30th, 2025. Metabolomics Signatures of Coral Bleaching History and Future.

University of California San Diego, La Jolla, CA. April 22nd, 2025. Microbial bile acid conjugation as a new mechanism of host-microbiome crosstalk.

University of South Florida, Tampa, FL. Jan 31, 2024. Metabolomics Signatures of Coral Bleaching History and Future.

Dartmouth University, DartCF, Hanover, NH. May 7th, 2023. The Effect of Trikafta on the Cystic Fibrosis Lung Microbiome.

Broken Arrow Conference, Cystic Fibrosis Canada. Apr 26th, 2023. The Effect of Trikafta on the Cystic Fibrosis Lung Microbiome.

Justus Liebig University, Geissen Germany. Feb 9th, 2023. Metabolites from the Microbiome During Health and Disease.

University of Manchester, Manchester, UK. Feb 7th, 2023. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome

University of the Virgin Islands, St. Thomas USVI. Feb 1st, 2023. Metabolites from the Microbiome During Health and Disease

Fred Hutchison Cancer Center, Remote over Zoom. Nov 16th, 2022. Microbial bile acid conjugation as a new mechanism of host-microbiome crosstalk.

Wellcome Sanger Institute, Cambridge, UK. Sept 29th, 2022. Microbial bile acid conjugation as a new mechanism of host-microbiome crosstalk.

University of Illinois, Department of Molecular and Integrative Physiology. Sept 7th, 2022. Microbial bile acid conjugation as a new mechanism of host-microbiome crosstalk.

Anaerobe 2022. Anaerobe Society of the Americas. July 29th, 2022. Microbial bile acid conjugation as a new mechanism of host-microbiome crosstalk.

University of Connecticut Department of Chemistry Seminar Series. April 14th, 2022. Table Talk: Conversation between the microbiome and host through bile acid conjugation.

University of Michigan Microbiome Seminar Series. Dec 15, 2021. Table Talk: Conversation between the microbiome and host through bile acid conjugation.

Temple University Medical Microbiology Seminar Series. Nov 1, 2021. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Metabolomics Society of North America. Online. Oct 8th, 2021. Microbial Bile Acid Conjugation. Early Career Award Lecture.

European Cystic Fibrosis Society Annual Conference. Online. June 6-9th, 2021. Complex outcomes of antimicrobial therapy against the CF lung microbiome.

Telluride Cystic Fibrosis Ecology and Eradication Conference. Telluride Science Center, Telluride, CO. June 7th-12th, 2021. Complex outcomes of antimicrobial therapy against the CF lung microbiome.

University of Oklahoma. Departmental Seminar. Department of Microbiology and Plant Biology. Jan 28, 2021. Metabolites from the Microbiome During Health and Disease.

Pennsylvania State University. Microbiome Seminar Series Invited Speaker. State College, PA. Dec 6th, 2019. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.
Example Talk on youtube from Penn State Microbiome Center:
https://www.youtube.com/watch?v=VoJjqUT_TPk

Metabolomics Association of North America. Georgia Tech Conference Center. Atlanta, GA. Nov 15th-17th, 2019. Global Impacts of the Microbiome Include Novel Conjugated Bile Acids that Stimulate FXR

Telluride Cystic Fibrosis Ecology and Eradication Conference. Telluride Science Center, Telluride, CO. June 10th-14th, 2019. Daily dynamics of the cystic fibrosis lung microbiome.

International Society for Chemical Ecology. Atlanta, GA. June 3rd-4th, 2019. Global Impacts of the Microbiome Include Novel Conjugated Bile Acids that Stimulate FXR

Keystone Meeting. Microbiome: Chemical Mechanisms and Biological Consequences. Montreal, Canada. March 10th-14th, 2019. Global Impacts of the Microbiome Include Novel Conjugated Bile Acids that Stimulate FXR.

University of Grenoble Alpes. Seminar for Medical School. Grenoble, France. November 20th, 2018. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Microbiome.

International Workshop on Microbiome in HIV Pathogenesis, Prevention and Treatment. National Institute of Allergy and Infectious Diseases. Rockville, MD. Oct 16, 2018. Chemistry from the Microbiome During Health and Disease.

Helen De Vos Children's Hospital Grand Rounds. October 31st, 2018. Helen De Vos Children's Hospital, Grand Rapids, MI. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Department of Medicine. Michigan State University. October 10th, 2018. Secchia Center, Grand Rapids, MI. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Department of Microbiology and Molecular Genetics Seminar Series. Michigan State University. East Lansing, MI. September 18th, 2018. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome

Michigan State University Department of Biochemistry and Molecular Biology. Dec 15th, 2017. East Lansing, MI. Chemical ecology of the microbiome.

University of California Riverside Biochemistry Department Seminar. Nov 7th, 2017. UC Riverside. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Skaggs School of Pharmacy Seminar. UCSD. Oct 27th, 2017. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Peptide Therapeutics Symposium. Salk Institute. Oct 27th, 2017. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Lung Microbiome.

Telluride Cystic Fibrosis Ecology and Eradication Conference. Telluride Science Center, Telluride, CO. Aug 7th-11th, 2017. Niche Partitioning in the Cystic Fibrosis Lung Microbiome.

Natural Products Affinity Group. Scripps Institute of Oceanography, La Jolla, CA. June 9, 2017. Better living through chemistry: How molecules from our microbiome impact our health and disease.

ASM Microbe. New Orleans, LA. June 1-5, 2017. Microbiome impacts at organismal scales.

Kavli Institute for Brain and Mind. Sanford Burnham Institute. La Jolla, CA. May 4, 2017. Microbiome impacts at organismal scales.

North American Cystic Fibrosis Conference. Orlando, FL. Oct 26-30, 2016.
Talk 1: Rapid Response: Translating multi-omics data on CF exacerbations in clinically relevant time frames.
Talk 2: Testing the fermentation and exacerbation hypothesis.

ISME 2016. Montreal, Canada. Aug 21st-26th. Modeling the Dynamics of the Cystic Fibrosis Lung Microbiome in a Microcosm of a Mucus-Plugged Bronchiole.

California Microbiome Initiative Meeting. San Diego, CA. Aug 12-14th. University of California at San Diego. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Microbiome.

Illumina Inc. San Diego Microbiome Meeting. San Diego, CA. July 18, 2016. Lungs, Germs and Steel: Fighting the Cystic Fibrosis Microbiome.

ASM microbe 2016. BCEC, Boston, MA. June 16, 2016. pH and Antibiotic Pressure Govern the Structure and Function of the Cystic Fibrosis Lung Microbiome.

Human Microbiome Congress. Hilton Bayfront, San Diego, CA. Feb 10-11, 2016. Structure and Function of the Cystic Fibrosis Lung Microbiome.

North American Cystic Fibrosis Conference. Phoenix, AZ. Oct 8-10, 2015. Metabolomics of Sputum Supports a Polymicrobial and Ceramide-Mediated Hyperinflammation model of CF disease.

Telluride Cystic Fibrosis Ecology and Eradication Conference. Telluride Science Center, Telluride, CO. Aug 5th, 2015. Cystic Fibrosis Metabolomics.

Cystic Fibrosis Research Inc. National CF Family Education Conference. San Francisco, CA, Aug 3rd, 2015. San Francisco, CA. Omics Approaches to Cystic Fibrosis Exacerbations.

Cytoscape Network Analysis Workshop. Sanford Consortium for Regenerative Medicine. University of California at San Diego. April 17, 2015. Networking Approaches Link Microbial and Host Physiology in the Cystic Fibrosis Lung.

Understanding Microbial Communities Function, Structure, and Dynamics. Isaac Newton Institute for Mathematical Science. Cambridge University, Cambridge, UK. November 13, 2014. Microbial and Host Physiology in the Cystic Fibrosis Lung.
Video of presentation available at: https://www.newton.ac.uk/seminar/20141113150016002

ISME 2014. Seoul, South Korea. August 24th-29th, 2014 'Omics' Methods Reveal How Chemistry Governs the Biology of Cystic Fibrosis Lung Infections.

Cystic Fibrosis Research Inc. National CF Family Education Conference. San Francisco, CA, Aug 1st, 2014. Omics Analysis of Cystic Fibrosis Pulmonary Exacerbations.

Canadian Institute for Advanced Research Meeting. June 25th-29th, 2014. Prague, Czech Republic.
Metabolomics Approaches to Reveal the Chemical Diversity of Biological Systems.

Societal Memberships

Microbiology Society
American Society for Microbiology
International Society for Microbial Ecology
Metabolomics Society
American Society for Mass Spectrometry

Certifications and Special Training

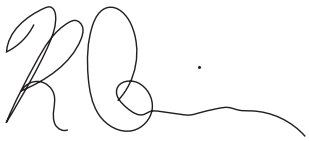
Academic Communications Fellowship. 2019. Completed four-day media training for academic science fellowship. Trained in communicating and speaking about science with media outlets social and national.

Bioinformatics for Mass Spectrometry. Experienced user of Global Natural Products Social Molecular Networking (GNPS, gnps.ucsd.edu) database. The first crowd-sourced mass spectrometry and metabolomics data repository and analysis pipeline.

Modeling Microbial Communities. Attended a workshop and think-tank on how to model the dynamics of microbial communities at the Isaac Newton Institute for Mathematics at Cambridge University. November 2014.

Advanced Mass Spectrometry. Trained on LC-MS/MS, GC-MS and MALDI-TOF mass spectrometry instruments, by members of Dr. Pieter Dorrestein's lab. January 2013.

Registered and Certified Integrated Microbial Genomes User (IMG). September 2011. Completed course on advanced assembly and analysis of microbial genomes and metagenomes using the Joint Genome Institute IMG system.



Robert Quinn, PhD