CAMERON YOUNG

camyoung54@gmail.com (617) 640-1335 www.linkedin.com/in/camyoung54/

EDUCATION

May 2027 **Doctor of Medicine**, Harvard Medical School, Boston, MA (expected)

July 2023 **Master of Philosophy** in Medical Sciences (Cancer Research UK Cambridge Institute), University of Cambridge, Cambridge, UK
Thesis: *Development and Validation of a Reliable DNA Copy-Number-Based Machine Learning Algorithm for Breast Cancer Integrative Cluster Classification*

May 2022 **Bachelor of Science** in Chemical Engineering and Biochemistry, Northeastern University, Boston, MA

AWARDS

2022 Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry – Charles C. Shepard Science Award
2022 Winston Churchill Foundation of the United States – Churchill Scholarship ($60,000)
2022 Northeastern University Honors Program – Senior Award: Excellence in Research and Creative Endeavors
2021 Barry Goldwater Excellence in Education Foundation – Goldwater Scholarship ($7,500)
2020 Department of Chemical Engineering Outstanding Leadership Award
2019 Department of Chemical Engineering Outstanding Sophomore
2019 Best Poster Presentation – Engineering, Mathematics, and Applied Sciences, National Collegiate Research Conference, Harvard University ($500)
2019 Northeastern University, Office of Undergraduate Research and Fellowships, Undergraduate Research and Creative Endeavor (UGRCE) Award ($1,000)
2018 Northeastern University, Honor's Program, Early Research Award ($1,000)
2017 Northeastern University Honors Scholarship
2017 Honor's Essayist and Commencement Speaker, Medfield High School

RESEARCH EXPERIENCE

MESH Innovation in Operations (IO) at Mass General Brigham Innovation
Medical Student Researcher September 2023 – Present
Advisor: Dr. Marc Succi

- Employed ChatGPT and other Large Language Models (LLM) to evaluate medical decision making, clinical workflow development, and predictive diagnostic ability.
- Optimized LLM-based tools for integration into clinical practice and medical education settings.

Caldas Lab of Cancer Research UK Cambridge Institute
MPhil Candidate in Medical Sciences September 2022 – June 2023
Advisors: Dr. Carlos Caldas and Dr. Oscar M. Rueda

- Developed and validated a novel, platform-independent machine learning algorithm for the classification of breast cancer tumors into integrative cluster subtypes utilizing genomics data.
- Improved breast cancer sample classification accuracy by >10% compared with current gold standard approaches, enhancing clinical applicability and translatability.
- Published algorithm as open-source R package (*CopyClust*) for use by clinicians and researchers worldwide to characterize breast cancer datasets.

Randolph Lab of Boston Children's Hospital
Clinical Data Analyst January 2021 – September 2023
Clinical Research Assistant in Critical Care Medicine June 2020 – December 2020
Advisor: Dr. Adrienne G. Randolph

- Facilitated a nationwide CDC-funded public health surveillance registry (Overcoming COVID-19) to characterize and track demographics, symptoms, complications, and clinical characteristics associated with COVID-19-related illness in children and adolescents.
- Redefined the diagnosis and treatment of Multisystem Inflammatory Syndrome in Children (MIS-C) through careful prospective and retrospective analysis of patient data and application of clinical knowledge.
- Performed epidemiological and statistical analyses using adjusted regression models, propensity score matching, and clustering algorithms on a database of over 10,000 patients to help physicians and public health officials better identify, diagnose, and treat COVID-19-related illness in children.

Langer and Traverso Labs of MIT and Brigham and Women's Hospital
Clinical Data Analyst January 2020 – September 2020
Clinical Research Assistant in Radiation Oncology July 2019 – December 2019
Advisors: Dr. James D. Byrne, Dr. C. Giovanni Traverso, Dr. Robert S. Langer

- Developed a novel class of personalized radioprotective devices for mitigating healthy tissue damage in cancer patients as part of a full-time co-op experience.
- Manufactured and 3D printed customized drug delivery systems for localized delivery and expression of radiation damage suppressing mRNA in various tissues.
- Analyzed patient genetic information from whole genome sequencing and medical records to establish associations between single nucleotide polymorphisms and risk of radiation induced toxicities using machine learning models.
- Identified previously undiscovered drug-drug interactions in the gastrointestinal tract using a Python-based machine learning model, validated by patient data.

Northeastern University Molecular Bioelectrostatics and Drug Delivery Laboratory
Undergraduate Research Fellow January 2018 – June 2020
Advisor: Dr. Ambika G. Bajpayee

- Identified the role of advanced glycation end-products (AGEs) in age-related osteoarthritis (OA) progression and determined targeted drug treatments to reverse negative OA tissue properties.
- Created an accurate *in vitro* model of age-related osteoarthritis through biochemical and biomechanical tissue manipulation.
- Developed novel assays and tissue characterization techniques based on relevant literature review and methodical independent experimental design.

Northeastern University Advanced Mixed Signal and Integrated Circuit Laboratory
Summer Internship Participant June 2016 – August 2016
Advisor: Dr. Marvin Onabajo

- Constructed an automatic calibration system for a portable brain signal measuring device.
- Learned Arduino coding, advanced breadboard wiring, oscilloscope, and signal generator operation, conduct in a research environment, and poster and presentation skills.

PUBLICATIONS

Peer-Reviewed Publications

1. Shi Y., Reker D., Byrne J.D., Kirtane A.R., Jimenez K.H., Wang Z., Navamajiti N., **Young C.C.**, Fralish Z., Zhang Z., Lopes A., Soares V., Wainer J., von Erlach T., Miao L., Langer R., Traverso G. (2023). Screening oral drugs for their interactions with the intestinal transportome via porcine tissue 11 explants and machine learning. *Nat. Biomed. Eng*. (accepted).
2. Leland S.B., Staffa S.J., Newhams M.M., Khemani R.G., Marshall J.C., **Young C.C.**, Maddux A.B., Hall M.W., Weiss S.L., Schwarz A.J., Coates B.M., Sanders R.C., Jr., Kong M., Thomas N.J., Nofziger R.A., Cullimore M.L., Halasa N.B., Loftis L.L., Cvijanovich N.Z., Schuster J.E., Flori H., Gertz S.J., Hume J.R.,

Olson S.M., Patel M.M., Zurakowski D., Randolph A.G. (2023). The Modified Clinical Progression Scale for Pediatric Patients: Evaluation as a Severity Metric and Outcome Measure in Severe Acute Viral Respiratory Illness. *Pediatr Crit Care Med*. doi: 10.1097/PCC.0000000000003331.

3. Bembea M.M., Loftis L.L., Thiagarajan R.R., **Young C.C.**, McCadden T.P., Newhams M.M., Kucukak S., Mack E.H., Fitzgerald J.C., Rowan C.M., Maddux A.B., Kolmar A.R., Irby K., Heidemann S., Schwartz S.P., Kong M., Crandall H., Havlin K.M., Singh A.R., Schuster J.E., Hall M.W., Wellnitz K.A., Maamari M., Gaspers M.G., Nofziger R.A., Lim P.P.C., Carroll R.W., Coronado Munoz A., Bradford T.T., Cullimore M.L., Halasa N.B., McLaughlin G.E., Pannaraj P.S., Cvijanovich N.Z., Zinter M.S., Coates B.M., Horwitz S.M., Hobbs C.V., Dapul H., Graciano A.L., Butler A.D., Patel M.M., Zambrano L.D., Campbell A.P., Randolph A.G. & Overcoming COVID-19 Investigators (2023). Extracorporeal Membrane Oxygenation Characteristics and Outcomes in Children and Adolescents With COVID-19 or Multisystem Inflammatory Syndrome Admitted to U.S. ICUs. *Pediatr Crit Care Med*. doi: 10.1097/PCC.0000000000003212.
4. Chang J.C., **Young C.C.**, Muscal E., Sexson Tejtel S.K., Newhams M.M., Kucukak S., Crandall H., Maddux A.B., Rowan C.M., Halasa N.B., Harvey H.A., Hobbs C.V., Hall M.W., Kong M., Aguiar C.L., Schuster J.E., Fitzgerald J.C., Singh A.R., Wellnitz K., Nofziger R.A., Cvijanovich N.Z., Mack E.H., Schwarz A.J., Heidemann S., Newburger J.W., Zambrano L.D., Campbell A.P., Patel M.M., Randolph A.G., Son M.B.F. & Overcoming COVID-19 Investigators (2023). Variation in Early Anakinra Use and Short-term Outcomes in Multisystem inflammatory Syndrome in Children. *Arthritis Rheumatol*. doi: 10.1002/art.42495.
5. **Young C.C.**, LaRovere K.L., Newhams M.M., Kucukak S., Gertz S.J., Maddux A.B., Halasa N.B., Crandall H., Kong M., Fitzgerald J.C., Irby K., Randolph A.G., Campbell A.P., Son M.B.F. & Overcoming COVID-19 Investigators (2023). Clinical Course Associated with Aseptic Meningitis Induced by Intravenous Immunoglobulin for the Treatment of Multisystem Inflammatory Syndrome in Children. *J Pediatr*. doi: 10.1016/j.jpeds.2023.01.025.
6. Moffitt K.L., Nakamura M.M., **Young C.C.**, Newhams M.M., Halasa N.B., Reed J.N., Fitzgerald J.C., Spinella P.C., Soma V.L., Walker T.C., Loftis L.L., Maddux A.B., Kong M., Rowan C.M., Hobbs C.V., Schuster J.E., Riggs B.J., McLaughlin G.E., Michelson K.N., Hall M.W., Babbitt C.J., Cvijanovich N.Z., Zinter M.S., Maamari M., Schwarz A.J., Singh A.R., Flori H.R., Gertz S.J., Staat M.A., Giuliano J.S., Jr., Hymes S.R., Clouser K.N., McGuire J., Carroll C.L., Thomas N.J., Levy E.R., Randolph A.G (2023). Community-Onset Bacterial Coinfection in Children Critically Ill With Severe Acute Respiratory Syndrome Coronavirus 2 Infection. *Open Forum Infect Dis*. doi: 10.1093/ofid/ofad122.
7. Zambrano L.D., Newhams M.M., Olson S.M., Halasa N.B., Price A.M., Orzel A.O., **Young C.C.**, Boom J.A., Sahni L.C., Maddux A.B., Bline K.E., Kamidani S., Tarquinio K.M., Chiotos K., Schuster J.E., Cullimore M.L., Heidemann S.M., Hobbs C.V., Nofziger R.A., Pannaraj P.S., Cameron M.A., Walker T.C., Schwartz S.P., Michelson K.N., Coates B.M., Flori H.R., Mack E.H., Smallcomb L., Gertz S.J., Bhumbra S.S., Bradford T.T., Levy E.R., Kong M., Irby K., Cvijanovich N.Z., Zinter M.S., Bowens C., Crandall H., Hume J.R., Patel M.M., Campbell A.P., Randolph A.G. & Overcoming COVID-19 Investigators (2023). BNT162b2 mRNA Vaccination Against Coronavirus Disease 2019 is Associated With a Decreased Likelihood of Multisystem Inflammatory Syndrome in Children Aged 5-18 Years-United States, July 2021 - April 2022. *Clin Infect Dis*. doi: 10.1093/cid/ciac637.
8. LaRovere K.L., Poussaint T.Y., **Young C.C.**, Newhams M.M., Kucukak S., Irby K., Kong M., Schwartz S.P., Walker T.C., Bembea M.M., Wellnitz K., Havlin K.M., Cvijanovich N.Z., Hall M.W., Fitzgerald J.C., Schuster J.E., Hobbs C.V., Halasa N.B., Singh A.R., Mack E.H., Bradford T.T., Gertz S.J., Schwarz A.J., Typpo K.V., Loftis L.L., Giuliano J.S., Jr., Horwitz S.M., Biagas K.V., Clouser K.N., Rowan C.M., Maddux A.B., Soma V.L., Babbitt C.J., Aguiar C.L., Kolmar A.R., Heidemann S.M., Harvey H., Zambrano L.D., Campbell A.P., Randolph A.G. & Overcoming COVID-19 Investigators (2022). Changes in Distribution of Severe Neurologic Involvement in US Pediatric Inpatients With COVID-19 or Multisystem Inflammatory Syndrome in Children in 2021 vs 2020. *JAMA Neurol*. doi: 10.1001/jamaneurol.2022.3881.
9. Bodansky A., Vazquez S.E., Chou J., Novak T., Al-Musa A., **Young C.C.**, Newhams M., Kucukak S., Zambrano L.D., Mitchell A., Wang C.Y., Moffitt K., Halasa N.B., Loftis L.L., Schwartz S.P., Walker T.C., Mack E.H., Fitzgerald J.C., Gertz S.J., Rowan C.M., Irby K., Sanders R.C., Jr., Kong M., Schuster J.E., Staat M.A., Zinter M.S., Cvijanovich N.Z., Tarquinio K.M., Coates B.M., Flori H.R., Dahmer M.K., Crandall H., Cullimore M.L., Levy E.R., Chatani B., Nofziger R., Overcoming COVID-19 Investigators, Geha R.S., DeRisi J., Campbell A.P., Anderson M., Randolph A.G. (2022). NFKB2 haploinsufficiency identified via screening for IFN-alpha2 autoantibodies in children and adolescents hospitalized with SARS-CoV-2-related complications. *J Allergy Clin Immunol*. doi: 10.1016/j.jaci.2022.11.020.

10. Son M.B.F., Berbert L., **Young C.C.**, Dallas J., Newhams M., Chen S., Ardoin S.P., Basiaga M.L., Canny S.P., Crandall H., Dhakal S., Dhanrajani A., Sagcal-Gironella A.C.P., Hobbs C.V., Huie L., James K., Jones M., Kim S., Lionetti G., Mannion M.L., Muscal E., Prahalad S., Schulert G.S., Tejtel K.S., Villacis-Nunez D.S., Wu E.Y., Zambrano L.D., Campbell A.P., Patel M.M., Randolph A.G. & the Overcoming COVID-19 Investigators (2022). Postdischarge Glucocorticoid Use and Clinical Outcomes of Multisystem Inflammatory Syndrome in Children. *JAMA Netw Open*. doi: 10.1001/jamanetworkopen.2022.41622.
11. Dionne A., Friedman K.G., **Young C.C.**, Newhams M.M., Kucukak S., Jackson A.M., Fitzgerald J.C., Smallcomb L.S., Heidemann S., McLaughlin G.E., Irby K., Bradford T.T., Horwitz S.M., Loftis L.L., Soma V.L., Rowan C.M., Kong M., Halasa N.B., Tarquinio K.M., Schwarz A.J., Hume J.R., Gertz S.J., Clouser K.N., Corroll C.L., Wellnitz K., Cullimore M.L., Doymaz S., Levy E.R., Typpo K.V., Lansell A.N., Butler A.D., Kuebler J.D., Zambrano L.D., Campbell A.P., Patel M.M., Randolph A.G., Newburger J.W. & the Overcoming COVID-19 Investigators (2022). Tachyarrhythmias During Hospitalization for COVID-19 or Multisystem Inflammatory Syndrome in Children and Adolescents. *J. Am. Heart Assoc.* doi.org/10.1161/JAHA.122.025915
12. Maddux, A.B., Berbert, L., **Young, C.C.**, Feldstein, L.R., Zambrano, L.D., Kucukak, S., Newhams, M.M., Miller, K., FitzGerald, M.M., He, J., Halasa, N.B., Cvijanovich, N.Z., Loftis, L.L., Walker, T.C., Schwartz, S.P., Gertz, S.J., Tarquinio, K.M., Fitzgerald, J.C., Kong, M., Schuster, J.E., Mack, E.H., Hobbs, C.V., Rowan, C.M., Staat, M.A., Zinter, M.S., Irby, K., Crandall, H., Flori, H., Cullimore, M.L., Nofziger, R.A., Shein, S.L., Gaspers, M.G., Hume, J.R., Levy, E.R., Chen, S.R., Patel, M.M., Tenforde, M.W., Weller, E., Campbell, A.P., Randolph, A.G. & the Overcoming COVID-19 Investigators (2022). Health Impairments in Children and Adolescents After Hospitalization for Acute COVID-19 or MIS-C. *Pediatrics*. doi: 10.1542/peds.2022-057798
13. Melgar, M., Seaby, E.G., McArdle, A.J., **Young, C.C.**, Campbell, A.P., Murray, N.L., Patel, M.M., Levin, M., Randolph, A.G., Son, M.B.F. & BATS Consortium & the Overcoming COVID-19 Investigators (2022). Treatment of Multisystem Inflammatory Syndrome in Children: Understanding Differences in Results of Comparative Effectiveness Studies. *ACR Open Rheumatol*. doi: 10.1002/acr2.11478
14. Halasa, N.B., Spieker, A.J., **Young, C.C.**, Olson, S.M., Newhams, M.M., Amarin, J.Z., Moffitt, K.L., Nakamura, M.M., Levy, E.R., Soma, V.L., Talj, R., Weiss, S.L., Fitzgerald, J.C., Mack, E.H., Maddux, A.B., Schuster, J.E., Coates, B.M., Hall, M.W., Schwartz, S.P., Schwarz, A.J., Kong, M., Spinella, P.C., Loftis, L.L., McLaughlin, G.E., Hobbs, C.V., Rowan, C.M., Bembea, M.M., Nofziger, R.A., Babbitt, C.J., Bowens, C., Flori, H.R., Gertz, S.J., Zinter, M.S., Giuliano, J.S., Hume, J.R., Cvijanovich, N.Z., Singh, A.R., Crandall, H.A., Thomas, N.J., Cullimore, M.L., Patel, M.M., Randolph, A.G, & the Pediatric Intensive Care Influenza & Overcoming COVID-19 Investigators (2022). Life-Threatening Complications of Influenza versus COVID-19 in U.S. Children. *Clin. Inf. Dis.* doi: 10.1093/cid/ciac477
15. **Young, C.C.**, Byrne, J. D., Wentworth, A. J., Collins, J. E., Chu, J. N., & Traverso, G (2022). Respirators in Healthcare: Material, Design, Regulatory, Environmental, and Economic Considerations for Clinical Efficacy. *Global Challenges*. doi: 10.1002/gch2.202200001
16. Schuster, J. E., Halasa, N. B., Nakamura, M., Levy, E. R., Fitzgerald, J. C., **Young, C. C.**, Newhams, M. M., Bourgeois, F., Staat, M. A., Hobbs, C. V., Dapul, H., Feldstein, L. R., Jackson, A. M., Mack, E. H., Walker, T. C., Maddux, A. B., Spinella, P. C., Loftis, L. L., Kong, M., Rowan, C. M., Bembea, M. M., McLaughlin, G. E., Hall, M. W., Babbitt, C. J., Maamari, M., Zinter, M. S., Cvijanovich, N. Z., Michelson, K. N., Gertz, S. J., Carroll, C. L., Thomas, N. J., Giuliano, J. S., Singh, A. R., Hymes, S. R., Schwarz, A. J., McGuire, J. K., Nofziger, R. A., Flori, H. R., Clouser, K. N., Wellnitz, K., Cullimore, M. L., Hume, J. R., Patel, M., Randolph, A. G., & the Overcoming COVID-19 Investigators (2022). A Description of COVID-19-Directed Therapy in Children Admitted to US Intensive Care Units 2020. *J Pediatric Infect Dis Soc*. doi: 10.1093/jpids/piab123
17. Hobbs, C. V., Woodworth, K., **Young, C. C.**, Jackson, A. M., Newhams, M. M., Dapul, H., Maamari, M., Hall, M. W., Maddux, A. B., Singh, A. R., Schuster, J. E., Rowan, C. M., Fitzgerald, J. C., Irby, K., Kong, M., Mack, E. H., Staat, M. A., Cvijanovich, N. Z., Bembea, M. M., Coates, B. M., Halasa, N. B., Walker, T. C., McLaughlin, G. E., Babbitt, C. J., Nofziger, R. A., Loftis, L. L., Bradford, T. T., Campbell, A. P., Patel, M. M., Randolph, A. G., & the Overcoming COVID-19 Investigators (2021). Frequency, Characteristics and Complications of COVID-19 in Hospitalized Infants. *Pediatr Infect Dis J*. doi: 10.1097/INF.0000000000003435
18. Geva, A., Patel, M. M., Newhams, M. M., **Young, C. C.**, Son, M. B. F., Kong, M., Maddux, A. B., Hall, M. W., Riggs, B. J., Singh, A. R., Giuliano, J. S., Hobbs, C. V., Loftis, L. L., McLaughlin, G. E., Schwartz, S. P., Schuster, J. E., Babbitt, C. J., Halasa, N. B., Gertz, S. J., Doymaz, S., Hume, J. R., Bradford, T. T., Irby, K., Carroll, C. L., McGuire, J. K., Tarquinio, K. M., Rowan, C. M., Mack, E. H., Cvijanovich, N. Z., Fitzgerald, J. C., Spinella, P. C., Staat, M. A., Clouser, K. N., Soma, V. L., Dapul, H., Maamari, M., Bowens, C., Havlin, K. M., Mourani, P. M., Heidemann, S. M., Horwitz, S. M., Feldstein, L. R., Tenforde, M. W., Newburger, J. W.,

Mandl, K. D., Randolph, A. G., & the Overcoming COVID-19 Investigators (2021). Data-driven Clustering Identifies Features Distinguishing Multisystem Inflammatory Syndrome from Acute COVID-19 in Children and Adolescents. *EClinicalMedicine*. doi: 10.1016/j.eclinm.2021.101112.

19. Son, M. B. F., Murray, N., Friedman, K., **Young, C. C.**, Newhams, M. M., Feldstein, L. R., Loftis, L. L., Tarquinio, K. M., Singh, A. R., Heidemann, S. M., Soma, V. L., Riggs, B. J., Fitzgerald, J. C., Kong, M., Doymaz, S., Giuliano, J. S., Jr., Keenaghan, M. A., Hume, J. R., Hobbs, C. V., Schuster, J. E., Clouser, K. N., Hall, M. W., Smith, L. S., Horwitz, S. M., Schwartz, S. P., Irby, K., Bradford, T. T., Maddux, A. B., Babbitt, C. J., Rowan, C. M., McLaughlin, G. E., Yager, P. H., Maamari, M., Mack, E. H., Carroll, C. L., Montgomery, V. L., Halasa, N. B., Cvijanovich, N. Z., Coates, B. M., Rose, C. E., Newburger, J. W., Patel, M. M., Randolph, A. G., & the Overcoming COVID-19 Investigators (2021). Multisystem Inflammatory Syndrome in Children - Initial Therapy and Outcomes. *N Engl J Med, 385*(1), 23-34. doi:10.1056/NEJMoa2102605
20. Byrne, J. D., **Young, C. C.**, Chu, J. N., Pursley, J., Chen, M. X., Wentworth, A. J., Feng, A., Kirtane, A. R., Remillard, K. A., Hancox, C. I., Bhagwat, M. S., Machado, N., Hua, T., Tamang, S. M., Collins, J. E., Ishida, K., Hayward, A., Becker, S. L., Edgington, S. K., Schoenfeld, J. D., Jeck, W. R., Hur, C., & Traverso, G. (2021). Personalized Radiation Attenuating Materials for Gastrointestinal Mucosal Protection. *Adv Sci*, 8(12), 2100510. doi:10.1002/advs.202100510
21. LaRovere, K. L., Riggs, B. J., Poussaint, T. Y., **Young, C. C.**, Newhams, M. M., Maamari, M., Walker, T. C., Singh, A. R., Dapul, H., Hobbs, C. V., McLaughlin, G. E., Son, M. B. F., Maddux, A. B., Clouser, K. N., Rowan, C. M., McGuire, J. K., Fitzgerald, J. C., Gertz, S. J., Shein, S. L., Munoz, A. C., Thomas, N. J., Irby, K., Levy, E. R., Staat, M. A., Tenforde, M. W., Feldstein, L. R., Halasa, N. B., Giuliano, J. S., Jr., Hall, M. W., Kong, M., Carroll, C. L., Schuster, J. E., Doymaz, S., Loftis, L. L., Tarquinio, K. M., Babbitt, C. J., Nofziger, R. A., Kleinman, L. C., Keenaghan, M. A., Cvijanovich, N. Z., Spinella, P. C., Hume, J. R., Wellnitz, K., Mack, E. H., Michelson, K. N., Flori, H. R., Patel, M. M., Randolph, A. G., & the Overcoming COVID-19 Investigators (2021). Neurologic Involvement in Children and Adolescents Hospitalized in the United States for COVID-19 or Multisystem Inflammatory Syndrome. *JAMA Neurol, 78*(5), 536-547. doi:10.1001/jamaneurol.2021.0504
22. Feldstein, L. R., Tenforde, M. W., Friedman, K. G., Newhams, M., Rose, E. B., Dapul, H., Soma, V. L., Maddux, A. B., Mourani, P. M., Bowens, C., Maamari, M., Hall, M. W., Riggs, B. J., Giuliano, J. S., Jr., Singh, A. R., Li, S., Kong, M., Schuster, J. E., McLaughlin, G. E., Schwartz, S. P., Walker, T. C., Loftis, L. L., Hobbs, C. V., Halasa, N. B., Doymaz, S., Babbitt, C. J., Hume, J. R., Gertz, S. J., Irby, K., Clouser, K. N., Cvijanovich, N. Z., Bradford, T. T., Smith, L. S., Heidemann, S. M., Zackai, S. P., Wellnitz, K., Nofziger, R. A., Horwitz, S. M., Carroll, R. W., Rowan, C. M., Tarquinio, K. M., Mack, E. H., Fitzgerald, J. C., Coates, B. M., Jackson, A. M., **Young, C. C.**, Son, M. B. F., Patel, M. M., Newburger, J. W., Randolph, A. G., & the Overcoming COVID-19 Investigators (2021). Characteristics and Outcomes of US Children and Adolescents with Multisystem Inflammatory Syndrome in Children (MIS-C) Compared with Severe Acute COVID-19. *JAMA, 325*(11), 1074-1087. doi:10.1001/jama.2021.2091
23. Mehta, S., **Young, C. C.**, Warren, M. R., Akhtar, S., Shefelbine, S. J., Crane, J. D., & Bajpayee, A. G. (2021). Resveratrol and Curcumin Attenuate Ex Vivo Sugar-Induced Cartilage Glycation, Stiffening, Senescence, and Degeneration. *Cartilage*, 1947603520988768. doi:10.1177/1947603520988768
24. **Young, C. C.**, Vedadghavami, A., & Bajpayee, A. G. (2020). Bioelectricity for Drug Delivery: The Promise of Cationic Therapeutics. *Bioelectricity*, 2(2), 68-81. doi:10.1089/bioe.2020.0012

Non-Peer-Reviewed Publications

1. Byrne, J. D., Shakur, R., Collins, J. E., Becker, S., **Young, C. C.**, Boyce, H., & Traverso, G. (2020). Prophylaxis with Tetracyclines in ARDS: Potential Therapy for COVID-19-induced ARDS? *medRxiv*. doi:10.1101/2020.07.22.20154542

CONFERENCE PRESENTATIONS

1. **Young C.C.**, Rueda O.M., Caldas C. "CopyClust: A Reliable DNA Copy Number-Based Machine Learning Algorithm for Breast Cancer Integrative Cluster Classification," *European Association for Cancer Research 2023 Congress*; 2023 June 14; Turin, Italy.

2. Eason K., Boursnell C., Manzano R., **Young C.**, Edwards P.A.W., Chin S.F., Rueda O., Caldas C. "Timing of breast cancer copy number gains reveals genomic subtype-specific temporal dynamics," *European Association for Cancer Research 2023 Congress*; 2023 June 14; Turin, Italy.
3. Boyce H., **Young C.C.**, Wawer K. "How to Run a Career Meeting: Interview Preparation, Resume Review, and LinkedIn Help," *2021 Virtual AIChE Annual Meeting*; 2020 November 13; Virtual.
4. Byrne J.D., **Young C.C.**, Pursley J., Remilard K., Edgington S., Schoenfeld J.D., Traverso G. "Personalized radiation attenuating materials for mucosal protection," *American Physical Society*; 2020 March 2; Denver, CO.
5. **Young C.C.**, Mehta S., Warren M., Bajpayee A.G. "Role of Advanced Glycation End Products in Age Related Osteoarthritis," *American Society of Biochemistry and Molecular Biology Northeast Regional Meeting*; 2019 November 3; Boston, MA.
6. **Young C.C.**, Mehta S., Warren M., Bajpayee A.G. "Role of Advanced Glycation End Products in Age Related Osteoarthritis," *Northeastern University Research, Innovation and Scholarship Expo*; 2019 April 4; Boston, MA.
7. **Young C.C.**, Mehta S., Warren M., Bajpayee A.G. "Role of Advanced Glycation End Products in Age Related Osteoarthritis," *Harvard University National Collegiate Research Conference*; 2019 January 24-26; Cambridge, MA.

ACADEMIC INVOLVEMENT

Invited Panels

Council of State and Territory Epidemiologists and Centers for Disease Control and Prevention Work Group. *Standardized Case Definition for Surveillance of Multisystem Inflammatory Syndrome in Children Associated with SARS-CoV-2 Infection*. July and August 2021. Virtual.

Peer-Review Activities

Journals: Hypertension, Internal Medical Case Reports Journal, Pediatrics

VOLUNTEER EXPERIENCE

MD Connection
Peer Mentor — July 2021 – Present
- Provided insight and guidance for first-generation, low-income, and underrepresented students applying to medical school via monthly advising sessions.
- Evaluated students' application essays, aided in MCAT studying, and guided research experiences and extracurricular activities.

Boston Children's Hospital
Inpatient Volunteer and New Volunteer Trainer — June 2018 – June 2022
- Dedicated over 500 hours of volunteering in the General Medicine, Complex Care, and Intermediate Care Units and facilitating new volunteer training.
- Interacted with patients and families to provide games, activities, food, and other items, either at bedside or in Activity Room to create a friendly and welcoming environment for all at the hospital.
- Assisted staff in comforting and distracting patients, running errands, and cleaning.
- Gained meaningful insight into the perspective of both medical professionals and patients in the hospital setting.

Boston Public Health Commission
Emergency Clinical Volunteer — April 2020 – June 2020
- Provided hands-on medical support at an emergency homeless shelter in Boston in response to the COVID-19 pandemic for 24 hours per week according to the EMT scope of practice.

- Assessed residents' conditions, monitored chronic illnesses, and ensured access to prescribed medications, as primary on-site medical provider for 80 residents.

WORK EXPERIENCE

WHOOP, Boston, MA
Product Tester — June 2021 – Present
- Played a pivotal role in the product development lifecycle by rigorously testing WHOOP's wearable health devices, ensuring they met the highest standards of accuracy, reliability, and user experience.
- Conducted comprehensive testing on wearable devices, including functionality, durability, and user interface assessments via a number of real-world scenarios including running, cycling, and CrossFit-style workouts.

Hinkley Pond, Medfield, MA
Head Lifeguard — Summers 2015 – 2018
- Managed team of 25 lifeguards, created schedules, assessed employees' performance, and executed disciplinary action
- Tasked with opening and closing beach area, water testing, and member conflict resolution

Various Soccer Leagues in the Greater Boston Area
Grade 8 Soccer Referee — September 2012 – May 2018
- Referee for various leagues in the Boston Area: Boston Area Youth Soccer (BAYS), Northeast Soccer League (NSL), and New England Premiership (NEP)
- Selected to referee in several high-level tournaments including Needham Memorial Day Tournament, Massachusetts State Cup, and Massachusetts Tournament of Champions
- Young Referee of the Tournament, Needham Memorial Day Tournament, 2018
- Honorable Mention, Massachusetts State Referee Committee's award for Young Referee of the Year, 2017

PROFESSIONAL SKILLS

Programming Languages: R, Python, Java, MATLAB, C++, HTML, CSS, Arduino
Software Knowledge: SolidWorks, AutoCAD, ImageJ, Meshmixer, PreForm, Epic EMR, PowerChart EMR, REDCap, Microsoft Excel, Microsoft PowerPoint
Laboratory: Cell and Tissue Culture, Biochemical Assay Development, HPLC, Centrifugation, Tissue Homogenization, Confocal Microscopy, Western Blotting, Tissue Dissection, Small Animal Handling, Media Preparation, Data Analysis, Literature Review, Figure Preparation, Grant and Manuscript Writing
Mechanical: 3D Printing, Soldering, Silicone Molding, Metal Casting, Milling

COURSE WORK

Northeastern University
GPA: 3.96
Capstone II: Process Design Capstone I: Design and Process Analysis, Biochemistry & Lab, Bioanalytical Chemistry & Lab, Kinetics, Process Control, Chemical Engineering Design Lab I & II, Thermodynamics I, Thermodynamics II, Transport Processes I, Transport Processes II, Conservation Principles, Introduction to the Spectroscopy of Organic Compounds & Lab, Organic Chemistry I & Lab, Organic Chemistry II & Lab, Microbiology & Lab, Genetics and Molecular Biology & Lab, Physics I & Lab, Physics II & Lab, Advanced Writing in the Technical Disciplines, General Chemistry for Engineers, Differential Equations and Linear Algebra, Biostatistics & Lab, Calculus III, Cornerstone of Engineering I & II, First Year Writing, Emergency Medical Technician Training, Foundations of Coordinated Patient Care

CAMPUS INVOLVEMENT

Harvard Medical School

Harvard Medical School Review
Associate Editor (September 2023 – Present)

Lifestyle Medicine Interest Group
President (September 2023 – Present)

Massachusetts Chapter of the American Academy of Pediatrics
Medical Student Representative (September 2023 – Present)

Pediatrics Interest Group
General Board Member (September 2023 – Present)

University of Cambridge

Churchill College Middle Combination Room
First Year Representative (October 2022 – July 2023)

Northeastern University

American Institute of Chemical Engineers, Northeastern Student Chapter
Treasurer (August 2020 – August 2021)
President (August 2019 – August 2020)
Webmaster and E-Board Member (August 2018 – August 2019)
STEM Committee Member (September 2017 – August 2018)

College of Engineering
Peer Mentor and Tutor (September 2018 – May 2022)

Interfraternity Council
Director of Recruitment (December 2019 – December 2020)

International Society of Pharmaceutical Engineers, Northeastern Student Chapter
Member (September 2017 – May 2022)

Northeastern Science Magazine
Staff Writer (September 2018 – May 2019)

Omega Xi Epsilon – Chemical Engineering Honor Society
Member and Peer Mentor (September 2020 –May 2022)

Sigma Xi – Scientific Research Honor Society
Scholarship Chair (January 2022 – Present)
Research Immerse Program Peer Mentor (September 2020 – May 2022)
Associate Member and Peer Mentor (September 2020 – May 2022)

Tau Beta Pi – Engineering Honor Society
Member (November 2019 – May 2022)