

Deborah Plana, MD, PhD

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EDUCATION

Massachusetts Institute of Technology • Cambridge, MA Jun. 2013-Jun. 2017
Bachelor of Science in Biological Engineering GPA 4.9/5.0
Minor in Statistics and Data Science

Harvard Medical School/MIT Medical Scientist Training Program • Boston, MA Jun. 2017-May 2024
Harvard PhD in Systems Biology, with the dissertation: [“Clinical Trial Data Science to Advance Precision Oncology”](#)
Harvard-MIT MD from the Health Sciences and Technology Program, *magna cum laude*

MEDICAL RESIDENCY TRAINING

Massachusetts General Hospital, PRIME Track, Anesthesia/Research Residency • Boston, MA Jun. 2024-current

AWARDS

Exceptional Research Opportunities Program Grant • HHMI Jan. 2015
Ilona Karmel Writing Prize • MIT May 2015
Industrial Advisory Council for Minority Education Student Prize • MIT Dec. 2015
James E. Cunningham (1957) Memorial Scholar • MIT Dec. 2015
Tau Beta Pi Engineering Honor Society • MIT Sep. 2016
Reddy Family Undergraduate Research Opportunities Fund • MIT Dec. 2016
Medical Scientist Training Program • NIH Jun. 2017-May 2024
Presidential Scholar • HMS Aug. 2017, Aug. 2018
Quantitative Sciences in Drug Development Best Poster • Novartis Aug. 2018
Harvard Graduate Prize Fellowship • HMS Mar. 2019
Ruth L. Kirschstein National Research Service Award, F30CA260780 • NIH Jun. 2021-May 2024
Honors in a Special Field, *magna cum laude* • HMS May 2024

RESEARCH EXPERIENCE

Lauffenburger Laboratory • MIT Department of Biological Engineering • Cambridge, MA Jan. 2015-Jun. 2017
Undergraduate Research Opportunities Program (UROP) and MGH Summer Research Trainee Program (SRTP)

- Constructed and collected cytokine data from a triculture hydrogel model of endometriosis.
- Used a mixed-effects model of cytokine data to investigate the role of different cell types in endometriosis.
- Developed blood-based CLIA assays for prognosticating patient resistance to targeted therapies.
- Analyzed RNA-Seq and microarray data from melanoma patient tumor tissue and exosome samples to predict patients' response to immune-checkpoint inhibitors.

Sorger and Palmer Laboratories • HMS Laboratory of Systems Pharmacology • Boston, MA Jan. 2018-Mar. 2022
HMS/MIT MD-PhD Program

- Invented a statistical tool to identify treatment-sensitive tumor subgroups in early-phase clinical trials of new therapies.
- Discovered that a parametric distribution (Weibull) describes patient survival data and can estimate drug efficacy with smaller sample sizes as compared to traditional approaches.
- Established a published repository of individual participant survival data from over 150 clinical trials: cancertrials.io.
- Identified biomarkers of drug response in ovarian cancer and lymphoma using patient-derived xenograft (PDX) data.

LEADERSHIP AND WORK EXPERIENCE

Co-Director • Crimson Care Collaborative • HMS Mar. 2018-Mar. 2019

- Directed quality improvement efforts across seven primary care sites in the Greater Boston Area.
- Managed about 300 volunteers consisting of medical, dental, and undergraduate students.

Founding Member ▪ HST MD Student Diversity Ambassadors Group ▪ HMS *Mar. 2018-Dec. 2020*

- Collaborated with diversity initiatives at HMS and MIT for prospective student outreach and recruitment.

Member ▪ Medical School Admissions Committee for Harvard-MIT HST ▪ HMS *Jul. 2019-Mar. 2021*

- Reviewed applications, conducted interviews, contributed to discussions at subcommittee meetings, and submitted interview reports for medical school applicants.

Co-Founder, Coordinator ▪ Greater Boston Pandemic Fabrication Team ▪ Harvard-MIT *Mar. 2020-Jan. 2022*

- Coordinated team of ~100 scientists, clinicians, and engineers in responding to medical supply shortages during the COVID-19 pandemic, with resulting products used in Boston-area hospitals.
- Guided preparation and publication of multiple open-source research articles on the creation, reuse, and clinical testing of personal protective equipment during a crisis, available at panfab.org.

Research Fellow ▪ Longitude Capital ▪ Boston, MA *Aug. 2020-Feb. 2021*

- Sourced and evaluated early-stage companies for biotechnology investment team.
- Investigated therapeutic areas of interest and created presentation materials to summarize research findings.

Technology Venture Fellow ▪ Engine Ventures ▪ Cambridge, MA *Jan. 2024-May 2024*

- Developed landscape of scientific research and company activity addressing unmet needs in fertility.
- Performed technical due diligence for research, analytics, and investment support.

TEACHING

Undergraduate Teaching Assistant ▪ Fields, Forces and Flows (2.793/6.023/20.330) ▪ MIT *Jan. 2017-May 2017*

- Taught weekly recitations and office hours, organized review sessions, graded exams, and moderated Piazza forum.
- Course topics taught included electric fields, fluid flows, transport phenomena and applications to biological systems.
- Received 7.0/7.0 instructor rating.

Graduate Teaching Assistant ▪ Principles and Practices of Drug Development ▪ Harvard-MIT *Aug. 2020-Dec. 2020*

- Created and presented course materials on pharmacology fundamentals, preclinical drug discovery, clinical trials, drug manufacturing, FDA regulation, and financing of new therapeutics for undergraduate and graduate students.

TECHNICAL AND LANGUAGE SKILLS

Data analysis: Mathematica, MATLAB, Python, R.

Languages: Native/Bilingual proficiency in English and Spanish. Certified to provide clinical care in Spanish by ALTA language services.

PROFESSIONAL ACTIVITIES

Ad hoc referee: BMJ Open, Frontiers in Medicine

Member: American Society of Anesthesiologists; Early-Stage Anesthesiology Scholars; Harvard Center for Cancer Systems Pharmacology Executive Committee; HMS Medical Student COVID-19 Curriculum Committee; Society of Critical Care Anesthesiologists; Society for Obstetric Anesthesia and Perinatology

Poster judge: 22nd Annual New England Science Symposium, HMS

Research supervisor: Ivonne Zhou (undergraduate, UNC Chapel Hill), David Huang (undergraduate, Harvard College), William Sorger (undergraduate, Brandeis University), and Harris Davis (undergraduate, UNC Chapel Hill)

PEER-REVIEWED PUBLICATIONS

*Denotes equal contributions

1. Schrier, S. B., Hill, A. S., **Plana, D.**, & Lauffenburger, D. A. (2016). *Synergistic Communication between CD4+ T Cells and Monocytes Impacts the Cytokine Environment*. Scientific Reports, 6(1), 34942.
2. Koch, R., Christie, A. L., Crombie, J. L., Palmer, A. C., **Plana, D.**, Shigemori, K., Morrow, S. N., Van Scoyk, A., Wu, W., Brem, E. A., Secrist, J. P., Drew, L., Schuller, A. G., Cidado, J., Letai, A., & Weinstock, D. M. (2019). *Biomarker-driven strategy for MCL1 inhibition in T-cell lymphomas*. Blood, 133(6), 566–575.
3. Shi, A., Kasumova, G. G., Michaud, W. A., Cintolo-Gonzalez, J., Díaz-Martínez, M., Ohmura, J., Mehta, A., Chien, I., Frederick, D. T., Cohen, S., **Plana, D.**, Johnson, D., Flaherty, K. T., Sullivan, R. J., Kellis, M., & Boland, G. M.

(2020). *Plasma-derived extracellular vesicle analysis and deconvolution enable prediction and tracking of melanoma checkpoint blockade outcome*. Science Advances, 6(46), eabb3461.

4. Tyán, K., Levin, A., Avalos-Pacheco, A., **Plana, D.**, Rand, E. A., Yang, H., Maliszewski, L. E., Chylek, L. A., Atta, L., Tye, M. A., Carmack, M. M., Oglesby, N. S., Burgin, S., Yu, S. H., LeBoeuf, N. R., & Kemp, J. M. (2020). *Considerations for the Selection and Use of Disinfectants Against SARS-CoV-2 in a Health Care Setting*. Open Forum Infectious Diseases, 7(ofaa396).
5. Mostaghimi, A.*, Antonini, M.-J.*, **Plana, D.***, Anderson, P. D., Beller, B., Boyer, E. W., Fannin, A., Freake, J., Oakley, R., Sinha, M. S., Smith, L., Van, C., Yang, H., Sorger, P. K., LeBoeuf, N. R., & Yu, S. H. (2020). *Regulatory and Safety Considerations in Deploying a Locally Fabricated, Reusable Face Shield in a Hospital Responding to the COVID-19 Pandemic*. Med, 1(1), 139-151.e4.
6. Palmer, A. C.*, **Plana, D.***, & Sorger, P. K. (2020). *Comparing the Efficacy of Cancer Therapies between Subgroups in Basket Trials*. Cell Systems, 11(5), 449-460.e2.
7. Palmer, A. C.*, **Plana, D.***, Gao, H.*, Korn, J. M., Yang, G., Green, J., Zhang, X., Velazquez, R., McLaughlin, M. E., Ruddy, D. A., Kowal, C., Muszynski, J., Bullock, C., Rivera, S., Rakiec, D. P., Elliott, G., Fordjour, P., ... Sorger, P. K. (2020). *A Proof of Concept for Biomarker-Guided Targeted Therapy against Ovarian Cancer Based on Patient-Derived Tumor Xenografts*. Cancer Research, 80(19), 4278-4287.
8. Kassamali, B., Yu, Z., Davis, C., Carmack, M., Bui, A.-T. N., Said, J. T., **Plana, D.**, Yang, H., Sorger, P., LeBoeuf, N. R., & LaChance, A. H. (2021). *Conversion of Existing UVB Phototherapy Units to UVC Germicidal Chambers for N95 Decontamination: Lessons Learned*. Photobiomodulation, Photomedicine, and Laser Surgery, 39(2), 83-85.
9. McAvoy, M.*, Bui, A.-T. N.*, Hansen, C.*, **Plana, D.***, Said, J. T., Yu, Z., Yang, H., Freake, J., Van, C., Krikorian, D., Cramer, A., Smith, L., Jiang, L., Lee, K. J., Li, S. J., Beller, B., Huggins, K., Short, M. P., Yu, S. H., ... LeBoeuf, N. R. (2021). *3D Printed frames to enable reuse and improve the fit of N95 and KN95 respirators*. BMC Biomedical Engineering, 3(1), 10.
10. Kothakonda, A.*, Atta, L.*, **Plana, D.***, Ward, F. *, Davis, C., Cramer, A., Moran, R., Freake, J., Tian, E., Mazor, O., Gorelik, P., Van, C., Hansen, C., Yang, H., Li, Y., Sinha, M. S., Li, J., Yu, S. H., LeBoeuf, N. R., & Sorger, P. K. (2021). *De Novo Powered Air-Purifying Respirator Design and Fabrication for Pandemic Response*. Frontiers in Bioengineering and Biotechnology, 9, 725.
11. Antonini, M.-J.*, **Plana, D.***, Srinivasan, S.*, Atta, L., Achanta, A., Yang, H., Cramer, A. K., Freake, J., Sinha, M. S., Yu, S. H., LeBoeuf, N. R., Linville-Engler, B., & Sorger, P. K. (2021). *A Crisis-Responsive Framework for Medical Device Development Applied to the COVID-19 Pandemic*. Frontiers in Digital Health, 3, 617106.
12. Cramer, A. K. *, **Plana, D.***, Yang, H. *, Carmack, M. M., Tian, E., Sinha, M. S., Krikorian, D., Turner, D., Mo, J., Li, J., Gupta, R., Manning, H., Bourgeois, F. T., Yu, S. H., Sorger, P. K., & LeBoeuf, N. R. (2021). *Analysis of SteraMist ionized hydrogen peroxide technology in the sterilization of N95 respirators and other PPE*. Scientific Reports, 11(1), 2051.
13. **Plana, D.***, Tian, E. *, Cramer, A. K. *, Yang, H. *, Carmack, M. M., Sinha, M. S., Bourgeois, F. T., Yu, S. H., Masse, P., Boyer, J., Kim, M., Mo, J., LeBoeuf, N. R., Li, J., & Sorger, P. K. (2021). *Assessing the filtration efficiency and regulatory status of N95s and nontraditional filtering face-piece respirators available during the COVID-19 pandemic*. BMC Infectious Diseases, 21(1), 712.
14. Ye, Z., Qian, J. M., Hosny, A., Zeleznik, R., **Plana, D.**, Likitlersuang, J., Zhang, Z., Mak, R. H., Aerts, H. J. W. L., & Kann, B. H. (2022). *Deep Learning-based Detection of Intravenous Contrast Enhancement on CT Scans*. Radiology: Artificial Intelligence, 4(3), e210285.
15. Peterson, J. S., **Plana, D.**, Bitterman, D. S., Johnson, S. B., Aerts, H. J. W. L., & Kann, B. H. (2022). *Growth in eligibility criteria content and failure to accrue among National Cancer Institute (NCI)-affiliated clinical trials*. Cancer Medicine, 12(4), 4715-4724.
16. **Plana, D.**, Shung, D. L., Grimshaw, A. A., Saraf, A., Sung, J. J. Y., & Kann, B. H. (2022). *Randomized Clinical Trials of Machine Learning Interventions in Health Care: A Systematic Review*. JAMA Network Open, 5(9), e2233946.
17. **Plana, D.***, Palmer, A. C.*, & Sorger, P. K. (2022). *Independent Drug Action in Combination Therapy: Implications for Precision Oncology*. Cancer Discovery, 12(3), 606-624.
18. **Plana, D.**, Fell, G., Alexander, B. M., Palmer, A. C., & Sorger, P. K. (2022). *Cancer patient survival can be parametrized to improve trial precision and reveal time-dependent therapeutic effects*. Nature Communications, 13(1), 873.
19. Kazmierski, M., Welch, M., Kim, S., McIntosh, C., Rey-McIntyre, K., Huang, S. H., Patel, T., Tadic, T., Milosevic, M., Liu, F.-F., Ryczkowski, A., Kazmierska, J., Ye, Z., **Plana, D.**, Aerts, H. J., Kann, B. H., Bratman, S. V., Hope, A. J., & Haibe-Kains, B. (2023). *Multi-institutional prognostic modelling in head and neck cancer: evaluating impact and generalizability of deep learning and radiomics*. Cancer Research Communications, CRC-22-0152.
20. Hwangbo, H., Patterson, S. C., Dai, A., **Plana, D.**, & Palmer, A. C. (2023). *Additivity predicts the efficacy of most approved combination therapies for advanced cancer*. Nature Cancer, 1-12.

21. Zhou, I. *, **Plana, D. ***, & Palmer, A. C. (2024). *Tumor-specific activity of precision medicines in the NCI-MATCH trial*. *Clinical Cancer Research*, 30 (4): 786–792. *These authors contributed equally.

ABSTRACTS, DIGITAL PUBLICATIONS, AND FEDERAL COMMENTS

1. Cintolo-Gonzalez, J. A., Cohen, S., Michaud, W. A., **Plana, D.**, Panka, D. J., Sullivan, R., & Boland, G. (2017). *Society of Surgical Oncology 70th Annual Cancer Symposium: Use of Circulating Microvesicles, Exosomes, as a Biomarker to Track Response to Immunotherapy*. *Annals of Surgical Oncology*, 24(S1), 1–202.
2. Cohen, S., Cintolo-Gonzalez, J. A., **Plana, D.**, Sullivan, R., & Boland, G. (2017). *Society of Surgical Oncology 70th Annual Cancer Symposium: Mixed Responder Cohort of Metastatic Melanoma Patients Treated with Anti Programmed Cell Death-1*. *Annals of Surgical Oncology*, 24(S1), 1–202.
3. Kasumova, G. G., Shi, A., Cintolo-Gonzalez, J. A., Chein, I., Frederick, D. T., Alpatov, R., Michaud, W. A., **Plana, D.**, Panka, D. J., Corcoran, R. B., Flaherty, K. T., Sullivan, R. J., Kellis, M., & Boland, G. M. (2018). *Abstract A35: BRAF inhibition increases exosomal PD-L1 protein expression in melanoma*. *Checkpoints and Immunomodulation*.
4. Shi, A., Kasumova, G., Chien, I., Cintolo-Gonzalez, J., Frederick, D. T., Alpatov, R., Michaud, W. A., **Plana, D.**, Corcoran, R., Flaherty, K., Sullivan, R., Kellis, M., & Boland, G. (2018). *Abstract 4282: Deconvolution of plasma-derived exosomes for tracking and prediction of immunotherapy across multiple tissues*. *Bioinformatics and Systems Biology*, 4282–4282.
5. Kasumova, G. G., Kim, M. S., Shi, A., Chein, I., Frederick, D. T., Alpatov, R., Michaud, W. A., **Plana, D.**, Panka, D. J., Corcoran, R. B., Flaherty, K. T., & Sullivan, R. J. (2018). *Society of Surgical Oncology 71st Annual Cancer Symposium: Exosomal PD-L1 Protein Expression Correlates with Targeted Therapy Resistance in Melanoma*. *Annals of Surgical Oncology*, 25(S1), 1–230.
6. Shi, A., Cintolo-Gonzalez, J. A., Chien, I., Frederick, D. T., Alpatov, R., Michaud, W., **Plana, D.**, Panka, D., Corcoran, R., Flaherty, K., Sullivan, R., Kellis, M., & Boland, G. (2018). *Abstract B25: Exosomal transcriptomic signatures tracks and predicts response to checkpoint blockade immunotherapy*. *Systems Immuno-Oncology*.
7. **Plana, D.**, Arfè, A., & Sinha, M. S. (2020). *Re-Envisioning Clinical Trials During The COVID-19 Pandemic*. *Health Affairs Blog*.
8. **Plana, D.**, Arfè, A., & Sinha, M. S. (2020). *FDA-2020-D-1106-0139, Re: FDA Guidance on Conduct of Clinical Trials of Medical Products during COVID-19 Pandemic; Guidance for Industry, Investigators, and Institutional Review Boards*. *Regulations.gov*.
9. **Plana, D.** (2022). *Data science can help us run better cancer clinical trials*. *Mathematical Oncology Blog*.
10. Desai, V., Duggan, J., Glowala, J., Gupta, M., Kim, K., Liu, G., McDaniel, K., Nabel, K., Nagireddy, H., **Plana, D.**, Rencsok, E., Verheyen, C., Zhong, L. *Module 2: Epidemiology Principles*. (2020). *HMS Medical Student COVID-19 Curriculum*.
11. Gupta, A., **Plana, D.**, Antonini, M.J., Cramer, A., McAvoy, M., Atta, L. *HST students share their reflections on responding to Covid-19*. (2020). *Harvard-MIT Health Sciences and Technology News*.
12. Peterson, J. S., **Plana, D.**, Bitterman, D. S., Johnson, S. B., & Kann, B. H. (2021). *Growth in eligibility criteria content and failure to accrue among National Cancer Institute (NCI)-affiliated clinical trials*. *Journal of Clinical Oncology*, 39(15_suppl), 1515–1515.
13. Johnson, S., Ojo, A., Erfani, P., Guo, R., Garmilla, A., Saini, A., Benitez, B., Salinas, K. E., **Plana, D.**, Perez, A. P., Guzman, J., So-Armah, C., & Gottlieb, B. (2022). *Re-engaging patients in breast cancer screening through a scalable, high-touch care model*. *Journal of General Internal Medicine*, S553–S553.
14. Ojo, A., Johnson, S., Erfani, P., Guo, R., Garmilla, A., Saini, A., Benitez, B., Salinas, K. E., **Plana, D.**, Pena Perez, A., Guzman, J., So-Armah, C., & Gottlieb, B. (2022). *A high-touch outreach model to re-engage patients in mammogram screening*. *Journal of Clinical Oncology*, 40(16_suppl), e18555–e18555.
15. Ye, Z., Likitlersuang, J., Zeng, J., **Plana, D.**, Mak, R. H., Aerts, H., Haibe-Kains, B., Margalit, D. N., Schoenfeld, J. D., Tishler, R. B., & Kann, B. H. (2022). *Deep Learning for Automated Outcome Prediction in Oropharyngeal Cancer from Tumor and Lymph Node Imaging Data*. *International Journal of Radiation Oncology • Biology • Physics*, 114(3), e325.
16. Hwangbo, H., Patterson, S., Dai, A., **Plana, D.**, & Palmer, A. C. (2023). *Abstract 5718: Additivity predicts the clinical efficacy of most approved combination therapies for advanced cancer*. *Cancer Research*, 83(7_Supplement), 5718–5718.

ORAL PRESENTATIONS

1. **Plana, D.** *Using blood-based assays and RNA data to predict melanoma patient response to therapy*. Summer Research Trainee Program at the Massachusetts General Hospital. Boston, MA. June 2016.
2. **Plana, D.** *Parametric fitting of clinical trial data in oncology*. Harvard Institute for Therapeutic Sciences Symposium. Boston, MA. October 2019.

3. **Plana, D.** *Of mice and (small numbers of) men: Improving estimates of drug efficacy in oncology.* Harvard Systems Biology Department Pizza Talk. Boston, MA. October 2019.
4. **Plana, D.** *Parametric fitting of over 100,000 individual patient events from clinical trials in oncology.* Harvard-MIT Center for Regulatory Science Doctoral Student Symposium. Boston, MA. February 2020.
5. **Plana, D.** *Introduction to PanFab: Mobilizing a volunteer response to COVID-19 (Speaker); Resiliency and Trust: Local, regional, and national response to PPE shortages (Panelist).* Harvard-MIT Center for Regulatory Science Pandemic Response: Resilience and Recovery in the Era of COVID-19. Virtual. June 2020.
6. **Plana, D.** *Making Precise Estimates of Drug Efficacy from Small Amounts of Patient Data.* Tumor Therapeutics and Resistance Session; Junior Investigator Meeting for the NCI Cancer Systems Biology Consortium, Physical Sciences-Oncology Network, and the Big Data Scientist Training Enhancement Program. Virtual. August 2020.
7. **Plana, D.,** Palmer, A.C., Sorger, P.K. *Advancing the design and interpretation of cancer clinical trials through systematic data mining and analysis.* HMS Ludwig Cancer Center. Virtual. June 2021.
8. **Plana, D.** *Biological Engineering as a Foundation for a Career in Medical Research.* 20.001: MIT Introduction to Professional Success and Leadership in Biological Engineering. Cambridge, MA. November 2022.
9. **Plana, D.** *Highlights from the Bigelow: Residency Intake.* MGH Department of Medicine Noon Conference. Boston, MA. April 2023.

POSTER PRESENTATIONS

1. **Plana, D.,** Cocchi, M., Sundar, E., Pleumann, A., Grzybinski, M., Shaefi, S., Brogna, M. J., Sisti, L., Butler, K. L., Small, A., Cain, C., Muret-Wagstaff, S., Foley, J., Talmor, D., Ma, H., Whyte, R., Kleinman, G., Simon, B. A. *Early Identification and Care of the Critically Ill Post-Operative Patient.* Beth Israel Deaconess Medical Center Silverman Symposium. Boston, MA. April 2015.
2. **Plana, D.,** Hill, A., Cook, C., Griffith, L., Lauffenburger, D. *Creating a 3-D hydrogel model of the human endometrium and its interactions with immunological factors.* New England Science Symposium. Cambridge, MA. April 2016.
3. **Plana, D.,** Wang, S., Cepko, C. *Characterization of retinal cell subpopulations expressing distinct Otx2 enhancers.* Howard Hughes Medical Institute Exceptional Research Opportunities Program Meeting. Chevy Chase, MD. May 2016.
4. Cintolo-Gonzalez, J., Michaud, W., Cohen, S., **Plana, D.,** Panka, D., Sullivan, R., Boland, G. *Use of Circulating Microvesicles, Exosomes, as a Biomarker to Track Disease Burden in Melanoma.* Massachusetts General Hospital Clinical Research Day. Boston, MA. October 2016.
5. **Plana, D.,** Hill, A., Cook, C., Griffith, L., Lauffenburger, D. *Characterizing a 3-D hydrogel model of the human endometrium and its interactions with immunological factors using mixed effects modeling.* Biomedical Engineering Society Conference. Minneapolis, MN. October 2016.
6. **Plana, D.,** Palmer, A. C., Sorger, P.K. *Predicting patient response to cancer combination therapies from clinical trial data.* Novartis-Academia Conference on Quantitative Sciences in Drug Development. Cambridge, MA. August 2018.
7. **Plana, D.,** Palmer, A. C., Sorger, P.K. *Making Precise Estimates of Drug Efficacy from Small Amounts of Patient Data.* NCI Center for Cancer Systems Pharmacology Annual Investigators Meeting. Virtual. September 2020.
8. **Plana, D.,** Fell, G., Alexander, B. M., Palmer, A. C., & Sorger, P. K. *Cancer patient survival can be accurately parameterized, revealing time-dependent therapeutic effects and doubling the precision of small trials.* Keystone Symposia, Precision Oncology: Translating Discovery to the Clinic. Virtual. June 2021.
9. **Plana, D.,** Fell, G., Alexander, B. M., Palmer, A. C., & Sorger, P. K. *Re-analysis and sharing of clinical trial data to advance precision oncology.* 2021 Cancer Systems Biology Consortium Annual Investigator Meeting. Virtual. September 2021.
10. **Plana, D.,** Guntaka, P. K., Qian, J. M., Zhou, P., Hosny, A., Margalit, D. N., Schoenfeld, J. D., Tishler, R. B., Haddad, R. I., Uppaluri, R., Haibe-kains, B., Aerts, H., Kann, B. H. *Deep Learning and Harmonization of Multi-Institutional Data for Automated Gross Tumor and Nodal Segmentation for Oropharyngeal Cancer.* American Society for Radiation Oncology Annual Meeting. Virtual. October 2021.
11. **Plana, D.,** Fell, G., Alexander, B. M., Palmer, A. C., & Sorger, P. K. *Cancer patient survival can be accurately parameterized, improving trial precision and revealing time-dependent therapeutic effects.* Pacific Symposium on Biocomputing (PSB). Big Island, HI. January 2022.