

Brendan Reardon

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Education	<p>University of Limerick, Limerick, Ireland Doctor of Philosophy in Cancer Genomics (2023 -)</p> <p>Brandeis University, Waltham, MA Bachelors of Science in Physics (2014)</p>
Research experience	<p>Scientist II, March 2022 - present Computational Biologist III, June 2019 - March 2022 Computational Biologist II, November 2017 - June 2019 Associate Computational Biologist, June 2015 - November 2017 Van Allen Laboratory, Dana-Farber Cancer Institute, Boston, MA</p> <p>Associated Scientist, June 2015 - Present Cancer Program, Broad Institute of MIT & Harvard, Cambridge, MA</p> <p>Undergraduate Research Assistant, May 2012 - May 2014 Radio Astronomy Group, Brandeis University, Waltham, MA</p> <p>Visiting Summer Researcher, Summer 2013 Radio Astronomy & AGN Group, University College Cork, Cork, Ireland</p> <p>Undergraduate Research Assistant, Summer 2011 Astronomy Group, University of Massachusetts Lowell, Lowell, MA</p>
Professional experience	<p>Visiting Software Developer, April 2016 Data Science & Data Engineering, Broad Institute, Cambridge, MA</p> <p>Manager and Desktop Computing Specialist, May 2014 - May 2015 Library & Technology Services, Brandeis University, Waltham, MA</p> <p>Student Manager & Help Desk Technician, April 2012 - May 2014 Library & Technology Services, Brandeis University, Waltham, MA</p>
Technical skills	<p>Languages: Python, SQL, Bash, R, HTML, CSS, LaTeX Tools and Frameworks: Git, Docker, Google Cloud Platform</p>
Peer reviewed publications	<p>Mossanen M., Carvalho F., Muralidhar V., et al. Genomic Features of Muscle-invasive Bladder Cancer Arising After Prostate Radiotherapy. <i>Eur Urol.</i> (2022).</p> <p>Schiantarelli J., Pappa T., Conway J., et al. Mutational Footprint of Platinum Chemotherapy in a Secondary Thyroid Cancer. <i>JCO Precis Oncol.</i> (2022).</p> <p>Reardon, B., Moore, N.D., Moore, N.S., et al. Integrating molecular profiles into clinical frameworks through the Molecular Oncology Almanac to prospectively guide</p>

precision oncology. *Nat Cancer* (2021).

Reardon, B., Van Allen, E. M. Molecular profile to cancer cell line matchmaking. *Protocol Exchange*. (2021).

Keenan, T.E., Guerriero, J.L., Barroso-Sousa, R. et al. Molecular correlates of response to eribulin and pembrolizumab in hormone receptor-positive metastatic breast cancer. *Nat Commun* 12, 5563 (2021).

Camp, S.Y., Kofman, E., **Reardon, B.**, et al. Evaluating the molecular diagnostic yield of joint genotyping-based approach for detecting rare germline pathogenic and putative loss-of-function variants. *Genet Med* 23, 918–926 (2021).

Gurjao, C. et al. Discovery and Features of an Alkylating Signature in Colorectal Cancer. *Cancer Discov.* 11, 2446–2455 (2021).

Mahadevan, N. R. et al. Intrinsic Immunogenicity of Small Cell Lung Carcinoma Revealed by Its Cellular Plasticity. *Cancer Discov.* 11, 1952–1969 (2021).

Conway, J. R. et al. Integrated molecular drivers coordinate biological and clinical states in melanoma. *Nat. Genet.* (2020).

AlDubayan, S. H. et al. Detection of Pathogenic Variants With Germline Genetic Testing Using Deep Learning vs Standard Methods in Patients With Prostate Cancer and Melanoma. *JAMA* 324, 1957–1969 (2020).

Crowdis, J., He, M. X., **Reardon, B.**, Van Allen, E. M. CoMut: visualizing integrated molecular information with comutation plots. *Bioinformatics* 36, 4348–4349 (2020).

Dietlein, F. et al. Identification of cancer driver genes based on nucleotide context. *Nat. Genet.* 52, 208–218 (2020).

Bellmunt, J., Kim, J., **Reardon, B.**, et al. Genomic Predictors of Good Outcome, Recurrence, or Progression in High-Grade T1 Non-Muscle-Invasive Bladder Cancer. *Cancer Res.* 80, 4476–4486 (2020).

McPherson, V.*, **Reardon, B.***, et al. A phase 2 trial of buparlisib in patients with platinum-resistant metastatic urothelial carcinoma. *Cancer* (2020).

Rusert, J. M. et al. Functional precision medicine identifies new therapeutic candidates for medulloblastoma. *Cancer Res.* (2020).

Kamran, S. C. et al. Integrative Molecular Characterization of Resistance to Neoadjuvant Chemoradiation in Rectal Cancer. *Clin. Cancer Res.* (2019).

AlDubayan, S. H. et al. Association of Inherited Pathogenic Variants in Checkpoint Kinase 2 (CHEK2) With Susceptibility to Testicular Germ Cell Tumors. *JAMA Oncol* 5, 514–522 (2019).

Mouhieddine, T. H. et al. The Role of Clonal Hematopoiesis of Indeterminate Potential (CHIP) in Multiple Myeloma: Immunomodulator Maintenance Post Autologous Stem Cell Transplant (ASCT) Predicts Better Outcome. *Blood* 132, 749–749 (2018).

Hanna, G. J. et al. Integrated genomic characterization of oral carcinomas in post-

hematopoietic stem cell transplantation survivors. *Oral Oncol.* 81, 1–9 (2018).

AlDubayan, S. H. et al. Inherited DNA-Repair Defects in Colorectal Cancer. *Am. J. Hum. Genet.* 102, 401–414 (2018).

Bailey, M. H. et al. Comprehensive Characterization of Cancer Driver Genes and Mutations. *Cell* 173, 371–385.e18 (2018).

AACR Project GENIE Consortium. AACR Project GENIE: Powering Precision Medicine through an International Consortium. *Cancer Discov.* 7, 818–831 (2017).

Liu, D., Abbosh P, Keliher D, **Reardon, B.**, et al. Mutational patterns in chemotherapy resistant muscle-invasive bladder cancer. *Nat. Commun.* 8, 2193 (2017).

Cancer Genome Atlas Research Network. Integrated Genomic Characterization of Pancreatic Ductal Adenocarcinoma. *Cancer Cell* 32, 185–203.e13 (2017).

Mouw, K.W., Cleary J.M., **Reardon B.**, et al. Genomic Evolution after Chemoradiotherapy in Anal Squamous Cell Carcinoma. *Clin. Cancer Res.* 23, 3214–3222 (2017).

Garofalo. A., Sholl, L., **Reardon, B.**, et al. The impact of tumor profiling approaches and genomic data strategies for cancer precision medicine. *Genome Med.* 8, 79 (2016).

Gabuzda, D., Knuettel, S., **Reardon, B.** Transverse Faraday-rotation gradients across the jets of 15 active galactic nuclei. *Mon. Not. R. Astron. Soc.* 450, 2441–2450 (2015).

Suggs LS, Rots G, Jacques J, Vong H, Mui J, **Reardon B.**, Team IA2SD. "I'm Allergic to Stupid Decisions": An m-health campaign to reduce youth alcohol consumption. *Cases in Public Health Communication & Marketing.* 2011;5:111-135

* designates equal contribution

Invited
presentations

"Clinical interpretation of individual patient profiles with the Molecular Oncology Almanac"
Veteran Affairs (VA), August 2022. Boston, MA.

"Expanding clinical actionability in individual patient profiles with the Molecular Oncology Almanac"
Cancer Genomics Consortium (CGC), August 2022. St. Louis, MO.

"Expanding clinical actionability in individual patient profiles with the Molecular Oncology Almanac"
American Society of Clinical Oncology (ASCO), June 2022. Chicago, IL.

"Clinical Interpretation in Precision Oncology"
All-Ireland Cancer Research Institute Workshop on Digital Health, April 2022. Limerick, Ireland.

"Molecular Oncology Almanac, clinical interpretation of integrative molecular profiles to guide precision cancer medicine"
The Immuno-Oncology Translational Network Moonshot, November 2020.

"A molecular oncology almanac for integrative clinical interpretation of molecular profiles to guide precision cancer medicine"

American Association of Cancer Research (AACR) Annual Meeting, April 2019. Atlanta, GA.

“Feature-based clinical interpretation of whole exome and transcriptome data for precision cancer medicine”

American Association of Cancer Research (AACR) Annual Meeting, April 2018. Chicago, IL.

“Clinical Interpretation of individual patient whole-exome and transcriptome data”

Center for Cancer Precision Medicine (CCPM), Dana-Farber Cancer Institute, March 2018. Boston, MA.

“Clinical Interpretation of individual patient whole-exome and transcriptome data”

Cancer Program, Broad Institute, January 2018. Cambridge, MA.

“Feature-based clinical interpretation for integrative cancer genomics”

14th Annual Broad Institute Scientific Retreat, December 2017. Boston, MA.

“Computational analysis of clinically actionable genomic features: precision heuristics for interpreting the alteration landscape (PHIAL)”

American Association of Cancer Research (AACR) Annual Meeting, April 2017. Washington, D.C.

“Clinical Interpretation of Individual Cancer Genomes to Guide Patient Care”

Broad Institute Data Sciences & Data Engineering, May 2016

“Investigating the Proper Motions of the Blazar 1055+018”

Brandeis University Division of Science Summer Poster Symposium, Aug. 2012

Teaching
experience

Brandeis University November 2016

Guest Instructor: COSI-178a Computational Molecular Biology

Splash! November 2012 - 2016

Open Source Computational Biology (2016), Storytelling through Screenwriting and Science (2014), Screenwriting for the Scientist (2012)

Honors &
awards

Provost’s Undergraduate Research Fund April 2013

“Probing the Relativistic Jets of Active Galactic Nuclei”, \$2,500