



Rachel Davidowitz, PhD

Portfolio: www.racheldavidowitz.com

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Education

Harvard University | 2008-2013

Ph.D., Biological and Biomedical Sciences, Cell Biology

Cornell University | 2005-2008

B.S., Biological Sciences, Genetics and Developmental Biology, cum laude

Experience

Senior Scientific Illustrator/ Animator | 2021 to Present

Cobro Ventures. Arlington, VA

- Design digital media to help early-stage biotechnology companies under the Cobro umbrella effectively communicate with scientific partners, lay audiences and investors.
- Designed scientific figures, illustrations, animations, slide deck templates, and websites.
- Cobro portfolio: <https://cobroventuresservices.com/>
- Designed the website and all media (except logo) on website for Dynamic Cell Therapies <https://www.dynamiccelltherapies.com/>
- Designed the website and all media (except TED video) on website for AI Proteins <https://aiproteins.bio/>

Senior Digital Designer | 2020-2021

Digital Designer | 2017-2020

Explore Learning. Charlottesville, VA

- Designed interactive web-based teaching tools for K-12 science and math.
- Created illustrations and animations for all new science and math Gizmos post 2017.
- Designed 14 new biology Gizmos from concept to creation (including initial idea, pedagogic content research and design, graphics and animations).
- Biology lesson author and designer for new product – Next Generation Curriculum – a new way to help teachers and students use Gizmos, through interactive web-based quiz, style lessons.

Freelance Scientific Illustrator/ Animator | 2008-present

Selected Clients:

Journal of Clinical Investigation – Create figures for review issues.

Journal of Molecular Biology – Create cover art for special issues.

Dana-Farber Cancer Institute, Duke University, Princeton University – Figure illustrations and animations for various researchers.

MediVisuals – Animations for medical malpractice trial exhibits.

Scientific Animator | 2013-2016

Digizyme, Inc. Brookline, MA

- Created visual media to communicate complex scientific ideas to various audiences.
- Collaborated with Apple Inc. to create videos and illustrations for E. O. Wilson's Life on Earth, a digital high school biology textbook.
- Created promotional materials for biotechnology clients including Novartis and Cell Signaling Technologies.
- Created animations for the Museum of Science, Boston, Hall of Human Life.

Skills/ Software

3D: Autodesk Maya (Mental Ray and Arnold), Foundry Modo, Pixologic Zbrush

2D: Adobe Photoshop, Adobe Illustrator, Adobe After Effects

Interactive/Web: Adobe Animate, iBooks Author, some HTML, CSS, and JavaScript

Science: Chimera, Pymol, VMD, Molecular Maya

Selected Teaching

Instructor | 2015-2017 | Clarafi.com

Design the curriculum and created video coursework to teach Maya, After Effects, iBooks Author, Chimera, Pymol and VMD

Presentations and Talks

American Association for Cancer Research Annual Conference, 2011, Mini Symposium, "Identification of Mechanism Involved in Mesothelial Clearance by Ovarian Tumor Spheroids"

Gordon Research Conference, 2010, Signaling by Adhesion Receptors, "Mechanisms Governing Mesothelial Cell Clearance by Ovarian Cancer Cell Aggregates"

Publications

Davidowitz RA, Selfors L, Iwanicki M, Elias K, Karst A, Piao H, Ince T, Drage M, Dering J, Konecny G, Matulonis U, Mills G, Slamon D, Drapkin R, Brugge JS. Mesenchymal gene program-expressing ovarian cancer spheroids exhibit enhanced mesothelial clearance. *Journal of Clinical Investigation*. 2014; 124; 2611–2625.

Labidi-Galy SI, Clauss A, Ng V, Duraisamy S, Elias KM, Piao HY, Bilal E, Davidowitz RA, Lu Y, Badalian-Very G, Györffy B, Kang UB, Ficarro S, Ganesan S, Mills GB, Marto JA, Drapkin R. Elafin drives poor outcome in high-grade serous ovarian cancers and basal-like breast tumors. *Oncogene*. 2015; 34; 373-383.

Davidowitz RA, Iwanicki M, and Brugge, JS. In vitro Mesothelial Clearance Assay that Models the Early Steps of Ovarian Cancer Metastasis. *J. Vis. Exp.* 2012; 60. Iwanicki M, Davidowitz RA, 1, Ng MR, Besser A, Muranen T, Merritt M, Danuser G, Ince T, and Brugge JS. Ovarian Cancer Spheroids Use Myosin-Generated Force to Clear the Mesothelium. *Cancer Discovery*. 2011; 1; 2-13