FalconieriVisuals

Veronica Falconieri, MA, CMI
Veronica@FalconieriVisuals.com

Education

Johns Hopkins University School of Medicine, Baltimore, MD
M.A. in Medical and Biological Illustration, 2014

Smith College, Northampton, MA
B.A. in Biological Sciences with Highest Honors, Studio Art minor, *magna cum laude*, 2012

Software

Software
Cinema4D
ePMV
ZBrush
UCSF Chimera
After Effects
Osirix
Photoshop
Illustrator
InDesign

Skills

Animation
Graphic design
2D illustration
3D modeling
Project management
Presentation design
Medical illustration
Research

Scientific Expertise
General sciences
Biology
Protein structure
Molecular & Cell Biology
Histology
Anatomy

Website

www.FalconieriVisuals.com

Certification

Certified Medical Illustrator, BCMI, 2017 - 2022

Work Experience

Principal, Illustrator and Animator, 2014 - present
Falconieri Visuals, Bethesda, MD
Creates effective and engaging visuals to communicate science for broad range of clients using advanced animation, illustration, and design techniques.

Biomedical Illustrator, 2014 - 2017
Subramaniam Lab, National Institutes of Health, Bethesda, MD
Collaborated with researchers to create visualizations of molecular and cellular content for publication and presentation. Researched and analyzed protein structures. Author on 4 publications and contributed to 6 others. Designed posters, booklets, and slides. Co-initiated lab website gallery outreach initiative, and established lab Twitter account. Tracked and advised research project progress.

Animator and Research Assistant, 2013 - 2014
Subramaniam Lab, National Institutes of Health, Bethesda, MD
Produced 3D animation about HIV entry . Collaborated with researchers to develop HIV envelope glycoprotein mechanism model. Adapted complex molecular knowledge into format appropriate for student audience.

Honors Thesis and Research, 2010 - 2012
Scordilis Lab, *Smith College*, Northampton, MA
Researched protein localization using immuno-labelling and fluorescent microscopy. Analyzed 3D models of cells and developed colocalization calculation protocols.

Awards & Honors

2017 Citation of Merit, Medical Illustration, *BioImages 2017*
2016 Art of Science Image Contest Finalist, *Biophysical Society*
Juror Selected Entry, *BioImages 2016*
Distinguished Employee Achievement Award, *National Cancer Institute*
2015 NSF Visualization Challenge Illustration Finalist, *National Science Foundation*
Art of Science Image Contest Finalist, *Biophysical Society*
2014 Alan Cole Scholarship, *The Vesalius Trust*
2013 Frank H. Netter, M.D. Memorial Scholarship in Medical Art, *Johns Hopkins University*
Ranice W. Crosby Scholarship, *Johns Hopkins University*
William P. Didusch Scholarship, *Johns Hopkins University*
Elinor Widmont Bodian Scholarship in Medical Art, *Johns Hopkins Unversity*
The Third Dimension Juried Art Show, *3DCamp Houston*

Presentations

2017 **The Color of Cells: Using Microscopy to Inform Illustration**
•July 25, Association of Medical Illustrators Conference, Austin, TX
Advanced ePMV Molecular Visualization Techniques (Demonstration)
•July 26, Association of Medical Illustrators Conference, Austin, TX
Understanding and using cryo-EM for molecular visualization (Guest Lecture)
•April 27, Johns Hopkins Art as Applied to Medicine, Baltimore, MD
2016 **Cellular Sculpting Techniques in ZBrush**
• July 22, Association of Medical Illustrators Conference, Atlanta, GA
2015 **Molecules through the Lens of Medical Illustration** (Invited Lecture)
• November 2nd, Smith College, Northampton, MA
Workshop: Advanced ePMV Techniques
• July 22nd, Association of Medical Illustrators Conference, Cleveland, OH
The Cryo-Revolution: Cryo-EM's Impact on Structural Biology
• July 24th, Association of Medical Illustrators Conference, Cleveland, OH

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Publications (Author)

Guo TW, Bartesaghi A, Yang H, **Falconieri** V, Rao P, Merk A, et al. Cryo-EM Structures Reveal Mechanism and Inhibition of DNA Targeting by a CRISPR-Cas Surveillance Complex. Cell. Elsevier; 2017 Oct 18;171(2):414–426.e12.

Earl LA, **Falconieri** V, Milne JLS, Subramaniam S. Cryo-EM: beyond the microscope. Curr Opin Struct Biol. 2017;46(Supplement C):71–8.

Wohlbold TJ, Podolsky KA, Chromikova V, Kirkpatrick E, **Falconieri** V, Meade P, et al. Broadly protective murine monoclonal antibodies against influenza B virus target highly conserved neuraminidase epitopes. Nat Microbiol. 2017;2(10):1415–24.

Subramaniam S, Earl LA, **Falconieri** V, Milne JL, Egelman EH. Resolution advances in cryo-EM enable application to drug discovery. Curr Opin Struct Biol [Internet]. 2016 Dec;41:194–202. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0959440X16300847

Banerjee S, Bartesaghi A, Merk A, Rao P, Bulfer SL, Yan Y, **Falconieri** V, et al. 2.3 A resolution cryo-EM structure of human p97 and mechanism of allosteric inhibition. Science (80-). 2016 Feb 19;351(6275):871–5.

Borgnia MJ, Banerjee S, Merk A, Matthies D, Bartesaghi A, Rao P, **Falconieri** V, et al. Using Cryo-EM to Map Small Ligands on Dynamic Metabolic Enzymes: Studies with Glutamate Dehydrogenase. Mol Pharmacol. 2016 Apr 28;89(6):645–51.

Merk A, Bartesaghi A, Banerjee S, **Falconier**i V, Rao P, Davis MI, et al. Breaking Cryo-EM Resolution Barriers to Facilitate Drug Discovery. Cell. 2016 May 26.

Publications (Contributor)

Meyerson, Joel R, Sagar Chittori, Alan Merk, Prashant Rao, Tae Hee Han, Mihaela Serpe, Mark L Mayer, and Sriram Subramaniam. 2016. "Structural Basis of Kainate Subtype Glutamate Receptor Desensitization." Nature advance on (August). Macmillan Publishers Limited, part of Springer Nature. All rights reserved. http://dx.doi.org/10.1038/nature19352.

Earl, Lesley A., and Sriram Subramaniam. 2016. "Cryo-EM of Viruses and Vaccine Design." Proceedings of the National Academy of Sciences 113 (32): 8903–5. doi:10.1073/pnas.1609721113

Matthies, Doreen, Olivier Dalmas, Mario J. Borgnia, Pawel K. Dominik, Alan Merk, Prashant Rao, Bharat G. Reddy, et al. 2016. "Cryo-EM Structures of the Magnesium Channel CorA Reveal Symmetry Break upon Gating." Cell 164 (4): 747–56. doi:10.1016/j.cell.2015.12.055.

Frank, G. A., S. Shukla, P. Rao, M. J. Borgnia, A. Bartesaghi, A. Merk, A. Mobin, et al. 2016. "Cryo-EM Analysis of the Conformational Landscape of Human P-Glycoprotein (ABCB1) During Its Catalytic Cycle." Molecular Pharmacology 90 (1): 35–41. doi:10.1124/mol.116.104190.

Tran, Erin E. H., Kira A. Podolsky, Alberto Bartesaghi, Oleg Kuybeda, Giovanna Grandinetti, Teddy John Wohlbold, Gene S. Tan, et al. 2016. "Cryo-Electron Microscopy Structures of Chimeric Hemagglutinin Displayed on a Universal Influenza Vaccine Candidate." mBio 7 (2): e00257-16. doi:10.1128/mBio.00257-16.

Bartesaghi, A., A. Merk, S. Banerjee, D. Matthies, X. Wu, J. L. S. Milne, and S. Subramaniam. 2015. "2.2 A Resolution Cryo-EM Structure of -Galactosidase in Complex with a Cell-Permeant Inhibitor." Science 348 (6239): 1147–51. doi:10.1126/science.aab1576.

Santisakultarm, Thom P, Calvin J Kersbergen, Daryl K Bandy, David C Ide, Sang-Ho Choi, and Afonso C Silva. 2016. "Two-Photon Imaging of Cerebral Hemodynamics and Neural Activity in Awake and Anesthetized Marmosets." Journal of Neuroscience Methods 271 (September): 55–64. doi:https://doi.org/10.1016/j.jneumeth.2016.07.003.