

# Bil Clemons

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## Education

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### Ph.D. Biochemistry (December 2000) University of Utah

Salt Lake City, Utah, and MRC Laboratory of Molecular Biology, Cambridge, United Kingdom

### B.S. Biochemistry (May 1995) Virginia Tech

Blacksburg, Virginia, Minors in Chemistry and Biology

## Appointments

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2023 – Present	<b>Scientist in Residence</b> Biohub, Redwood City, California, USA
2021 – Present	<b>Arthur and Marian Hanisch Memorial Professor of Biochemistry</b>
2013 – 2021	<b>Professor of Biochemistry</b>
2018 – 2019	<b>Visiting Professor of Biochemistry</b> Institute of Organic Chemistry & Biochemistry, Prague, Czech Republic
2005 – 2013	<b>Assistant Professor of Biochemistry</b> Division of Chemistry and Chemical Engineering California Institute of Technology, Pasadena, California, USA
2001 – 2005	<b>Damon Runyon Cancer Research Fellow</b> Harvard Medical School, Boston, Massachusetts
1999 – 2001	<b>Visiting Student</b> Laboratory of Molecular Biology, Cambridge, UK
1995 – 2000	<b>Ph. D. Candidate</b> Biochemistry Department, University of Utah, Salt Lake City, Utah

## Research Experience

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2001 – 2005	Research Fellow: Structural studies of the bacterial protein translocation channel using X-ray crystallography and electron microscopy in the lab of Prof. Tom Rapoport, Ph.D., Cell Biology Dept., Harvard Medical School, Boston, Massachusetts. Co-mentored by Stephen Harrison, Ph.D., BCMP.
1996 – 2000	Graduate research: Crystallographic studies of the bacterial small ribosomal subunit and protein structures involved in translation in the lab of Prof. Venki Ramakrishnan, Ph.D. Structural Studies Division, MRC Laboratory of Molecular Biology, Cambridge, UK, and the Biochemistry Department, University of Utah, Salt Lake City, Utah.
1993 - 1995	Undergraduate research: Enzyme kinetics experiments of enzymes involved in the pathogenic life cycle of the yeast <i>C. albicans</i> in the lab of Prof. Walter Niehaus, Ph.D., Biochemistry Department, Virginia Tech, Blacksburg, Virginia.

## Honors

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American Academy of Arts and Sciences (Elected Member)	2024
Shirley Malcom Prize for Mentoring (Caltech)	2024
NIH Director's Lecture	2024
National Academy of Sciences (Elected Member)	2022
American Society of Biochemistry and Molecular Biology (Elected Fellow)	2022
Inaugural Caltech CCID Agent of Change Award	2021
Graduate Council Mentoring Award (Caltech)	2020
Virginia Tech Biochemistry - Distinguished Alumni	2018
Dr. Fred Shair Award for Programming Diversity	2017
NIH Director's Pioneer Award	2011
Searle Scholar Fellow	2007
Burroughs Wellcome Career Award in the Biomedical Sciences	2005
Damon Runyon Cancer Research Foundation Fellow	2002
Max Perutz Award, LMB, Cambridge	2001

## Publications (<https://scholar.google.com/citations?user=DTijWhgAAAAJ&hl=en>) \* denotes equal contribution, **bold** is the corresponding author

- 65 Beebe Yusrah Kaudeer, Jacob M. Kirsh, Katsuhiko Mitachi, Jessica M. Ochoa, Marie-Therese Soroush-Pejrimovsky, Yancheng E. Li, Vy N. Nguyen, Michio Kurosu, **William M. Clemons, Jr.** (2025) "Structures of bacterial and human phosphoglycosyltransferases bound to a common inhibitor inform selective therapeutics." [bioRxiv 2025.12.16.694696](https://doi.org/10.64898/2025.12.16.694696). <https://doi.org/10.64898/2025.12.16.694696>
- 64 Katsuhiko Mitachi, Deidre Daria, Jacob M. Kirsh, Wendy Effah, Ramesh Narayanan, William M. Clemons, Jr, **Michio Kurosu.** (2025) "New Insights of Muraymycin A1 and Its Analogs as DPAGT1 Inhibitors." [Bioorg. Chem. 169:109402](https://doi.org/10.1016/j.bioorg.2025.109402). PMID: 41447945. <https://doi.org/10.1016/j.bioorg.2025.109402>.

- 63 Shivansh Mahajan, Ashley E. Pall, Yancheng E. Li, Timothy L. Stemmler, **Douglas C. Rees, William M. Clemons, Jr.** (2025) "Nucleotide- and metalloid-driven conformational changes in the arsenite efflux ATPase ArsA" *Proc. Nat. Acad. Sci.* 122 (35) e2506440122 PMID: 40880530 <https://doi.org/10.1073/pnas.2506440122>.
- 62 Lindsey S. Marmont, Anna K. Orta, Robin A. Corey, David Sychantha, Ana Fernández Galliano, Yancheng E. Li, Becca W.A. Baileeves, Neil G. Greene, Phillip J. Stansfeld, William M. Clemons Jr, **Thomas G. Bernhardt.** (2024) "Synthesis of lipid-linked precursors of the bacterial cell wall is governed by a feedback control mechanism in *Pseudomonas aeruginosa*" *Nature Microbiology* PMID: 37577621 <https://doi.org/10.1038/s41564-024-01603-2>.
- 61 Anna K. Orta\*, Nadia Riera\*, Yancheng E. Li, Shiho Tanaka, Hyun Gi Yun, Lada Klaić, **William M. Clemons Jr.** "The mechanism of the phage encoded protein antibiotic from ΦX174." (2023) *Science* v381 n6654 PMID: 37440661 <https://doi.org/10.1126/science.adg9091>
- 60 52 Black Scientists "Juneteenth in STEMM and the barriers to equitable science." (2023) *Cell* v186 n12 pp2510-2517. PMID: 37295396 <https://doi.org/10.1016/j.cell.2023.05.016>
- 59 Ailiena Maggiolo, Shivansh Mahajan, **Douglas C. Rees, William M. Clemons.** "Intradimeric Walker A ATPases: Conserved features of a functionally diverse family." (2023) *J. Mol. Biol.* v435 n11 PMID: 37330285 <https://doi.org/10.1016/j.jmb.2023.167965>
- 58 Alexandra N. Barlow\*, M. S. Manu\*, Shyam M. Saladi, Paul T. Tarr, Yashpal Yadav, Aye M. M. Thinn, Yun Zhu, Arthur D. Laganowsky, **William M. Clemons Jr., Sureshkumar Ramasamy.** "Structures of Get3d reveal a distinct architecture associated with the emergence of photosynthesis." (2023) *J. Biol. Chem.* v299 n5 p104752 PMID: 37100288 <https://doi.org/10.1016/j.jbc.2023.104752>
- 57 Gail A. Robertson, **William M. Clemons Jr., Theanne N. Griffith.** "Being Black in Biophysics." (2023) *Biophys. J.* v122 n8 ppE1-E3 PMID: 3699008 <https://doi.org/10.1016/j.bpj.2023.03.025>
- 56 Michelle Y. Fry, Vladimira Najdrova, Ailiena Maggiolo, Shyam M. Saladi, Pavel Doležal, **William M. Clemons, Jr.** "Structurally derived universal mechanism for the catalytic cycle of the tail-anchored targeting factor Get3." (2022) *Nat. Struct. Mol. Biol.* v29, pp820-30. Epub 2022 Jul 18. PMID: 35851188. <https://doi.org/10.1038/s41594-022-00798-4>
- 55 Katsuhiko Mitachi, David Mingle, Wendy Effah, Antonio Sánchez-Ruiz, Kirk E. Hevener, Ramesh Narayanan, William M. Clemons, Jr., Francisco Sarabia, **Michio Kurosu.** "Concise Synthesis of Tunicamycin V and Discovery of a Cytostatic DPAGT1 Inhibitor." (2022) *Angew. Chem., Int. Ed. Engl.* v61 n31. Epub 2022 Jun 10. PMID: 35594368. <http://doi.org/10.1002/anie.202203225>
- 54 Michelle Y. Fry\*, Shyam M. Saladi\*, Alexandre Cunha, **William M. Clemons, Jr.,** "Sequence-based features that are determinant for tail-anchored membrane protein sorting in eukaryotes." (2021) *Traffic.* v22 n9 pp306-318. Epub 2021 Aug 3. PMID:34288289. <https://doi.org/10.1111/tra.12809>
- 53 Michelle Y. Fry\*, Shyam M. Saladi\*, **William M. Clemons, Jr.,** "The STI1-domain is a flexible alpha-helical fold with a hydrophobic groove." (2021) *Protein Sci.* v30 n4 pp882-898. Epub 2021 Mar 4. PMID: 33620121. <https://doi.org/10.1002/pro.4049>
- 52 Ku-Feng Lin, Michelle Y. Fry\*, Shyam M. Saladi\*, **William M. Clemons, Jr.,** "Molecular basis of tail-anchored integral membrane protein recognition by the cochaperone Sgt2." (2021) *J. Biol. Chem.* v296. Epub 2021 Feb 19. PMID: 33610544. <https://doi.org/10.1016/j.jbc.2021.100441>
- 51 **Shyam M. Saladi,** Ailiena Maggiolo, Kate Radford, William M. Clemons, Jr., "Structural Biologists, Let's Mind Our Colors." (2020) *bioRxiv.* <https://doi.org/10.1101/2020.09.22.308593>
- 50 Hyun Gi Yun, Kyoung-soon Jang, Shiho Tanaka, **William M. Clemons, Jr.,** "The structure of the UDP-Glc/GlcNAc 4-epimerase from the human pathogen *Campylobacter jejuni*." (2020) *bioRxiv.* <https://doi.org/10.1101/2020.09.22.308395>
- 49 Katsuhiko Mitachi, Hyun Gi Yun, Cody D. Gillman, Karolina Skorupinska-Tudek, Ewa Swiezewska, William M. Clemons Jr., **Michio Kurosu.** "Substrate Tolerance of Bacterial Glycosyltransferase MurG: Novel Fluorescence-based Assays." (2019) *ACS Infect. Dis.* v6 n6 pp1501-1516. Epub 2019 Dec 11. PMID: 31769280. <https://doi.org/10.1021/acsinfecdis.9b00242>
48. Katsuhiko Mitachi, Shou M. Kurosu, Shakiba Eslamimehr, Maddie R. Lemieux, Yoshimasa Ishizaki, William M. Clemons, Jr., **Michio Kurosu.** "Semisynthesis of an Anticancer DPAGT1 Inhibitor from a Muraymycin Biosynthetic Intermediate." (2019) *Org. Lett.* v21 n4 pp876-879. Epub 2019 Jan 30. PMID: 30698984. <http://doi.org/10.1021/acs.orglett.8b03716>
47. Katsuhiko Mitachi, Hyun Gi Yun, Sara Kurosu, Shakiba Eslamimehr, Maddie Lemieux, Lada Klaić, William Clemons Jr., **Michio Kurosu.** "Novel FR-900493 analogs that inhibit germination of *Clostridium difficile* spores." (2018) *ACS Omega.* v3 n2 pp1726-1739. <http://doi.org/10.1021/acsomega.7b01740>
46. Shyam Saladi, Nauman Javed, Axel Müller, **William Clemons, Jr.** "A statistical model for improved membrane protein expression using sequence-derived features." (2018) *J. Biol. Chem.* v293 n13 pp4913-4927. Epub 2018 Jan 29. PMID: 29378850. <http://doi.org/10.1074/jbc.RA117.001052>
45. Jee-Young Mock, Yue Xu, Yihong Ye, **William Clemons, Jr.** "The structural basis for regulation of the nucleocytoplasmic distribution of Bag6 by TRC35." (2017) *Proc. Nat. Acad. Sci.* v114 n44 pp11679-11684. Epub 2017 Oct 17. PMID: 29042515. <http://doi.org/10.1073/pnas.1702940114>
44. Michiel Niesen\*, Stephen Marshall\*, **Thomas Miller III, William Clemons Jr.** "Improving membrane protein expression by optimizing integration efficiency." (2017) *J. Biol. Chem.* v292 n47 pp19537-19545. Epub 2017 Sep 16. PMID: 28918393. <http://doi.org/10.1074/jbc.M117.813469>

43. Stephen Marshall\*, Michiel Niesen\*, Axel Müller, Katrin Tiemann, Shyam Saladi, Rachel Galimidi, Bin Zhang, **William Clemons Jr, Tom Miller III**. “A link between integral membrane protein expression and simulated integration efficiency.” (2016) *Cell Rep.* v16 n8 pp2169-2177. Epub 2016 Aug 11. PMID: 27524616. <http://doi.org/10.1016/j.celrep.2016.07.042>
42. Harry Gristick\*, Michael Rome\*, Justin Chartron, Meera Rao, Sonja Hess, Shu-ou Shan, **William Clemons Jr**. “Mechanism of assembly of a substrate transfer complex during tail-anchored protein targeting.” (2015) *J Biol. Chem.* v290 n50 pp30006-30017. Epub 2015 Oct 7. PMID: 26451041. <http://doi.org/10.1074/jbc.M115.677328>
41. Kyoung-Soon Jang, Roger Nani, Anastasia Kalli, Sergiy Levin, Axel Müller, Sonja Hess, **Sarah Reisman, William Clemons Jr**. “A cationic cysteine-hydrazide as an enrichment tool for the mass spectrometric characterization of bacterial free oligosaccharides.” (2015) *Anal. Bioanal. Chem.* v407 n20 pp6181-6190. Epub 2015 Jun 23. PMID: 26100547. <http://doi.org/10.1007/s00216-015-8798-8>
40. Kasuhiko Mitachi, Shajila Siricilla, Lada Klatic, William Clemons, Jr., **Michio Kurosu**. “Chemoenzymatic syntheses of water-soluble lipid I fluorescent probes.” (2015) *Tetrahedron Lett.* v56 n23 pp3441-3446. Epub Jan 12. PMID: 26190869. <http://doi.org/10.1016/j.tetlet.2015.01.044>
39. Jee-Young Mock, Justin Chartron, Ma’ayan Zaslaver, Yue Xue, Yihong Ye, **William Clemons, Jr**. “Bag6 complex contains a minimal tail-anchor-targeting module and a mock BAG domain.” (2015) *Proc. Nat. Acad. Sci.* v112 n1 pp106-111. Epub 2014 Dec 22. PMID: 25535373. <https://doi.org/10.1073/pnas.1402745112>
38. Axel Müller, Morgan Beeby, Alasdair W. McDowall, Janet Chow, Grant Jensen, **William M. Clemons, Jr**. “Ultrastructure and complex polar architecture of the human pathogen *Campylobacter jejuni*.” (2014) *Microbiology Open.* v3 n5 pp702-710. Epub 2014 Jul 25. PMID: 25065852. <http://doi.org/10.1002/mbo3.200> PMID:25065852
37. Harry Gristick, Meera Rao, Justin Chartron, Michael Rome, Shu-ou Shan, **William Clemons, Jr**. “The structure of a tail-anchor membrane protein-binding complex reveals the regulation of Get3 by Get4.” (2014) *Nat. Struct. Mol. Biol.* v21 n5 pp437-442. Epub 2014 Apr 13. PMID: 24727835. <https://doi.org/10.1038/nsmb.2813>
36. Yanfen Liu, Nia Soetandyo, Jin-gu Lee, Liping Liu, Yue Xu, William M. Clemons Jr, **Yihong Ye**. “USP13 antagonizes gp78 to maintain functionality of a chaperone in ER-associated degradation.” (2014) *eLife* v3 e01369. Epub 2014 Jan 14. PMID: 24424410. <https://doi.org/10.7554/elife.01369>
35. Kyoung-Soon Jang, Michael Sweredoski, Robert Graham, Sonja Hess, **William Clemons, Jr**. “Comprehensive proteomic profiling of outer membrane vesicles from *Campylobacter jejuni*.” *J. Proteomics* (2014) v98 pp90-98. Epub 2013 Dec 29. PMID: 24382552. <https://doi.org/10.1016/j.jprot.2013.12.014>
34. Sureshkumar Ramasamy, Ravinder Abrol, Christian Suloway, **William Clemons, Jr**. “The glove-like structure of the conserved membrane protein TatC provides insight into signal sequence recognition in twin-arginine translocation.” (2013) *Structure.* v21 n5 pp777-788. Epub 2013 Apr 11. PMID: 23583035. <https://doi.org/10.1016/j.str.2013.03.004>
33. Michael Rome, Meera Rao, William Clemons, Jr., **Shu-ou Shan**. “Precise timing of ATPase activation drives targeting of tail-anchored proteins.” (2013) *Proc. Nat. Acad. Sci.* v110 n19 pp7666-7671. Epub 2013 Apr 22. PMID: 23610396. <https://doi.org/10.1073/pnas.1222054110>
32. Justin Chartron, David Vandervelde, **William Clemons, Jr**. “Structures of the Sgt2/SGTA dimerization domain with the Get5/UBL4A UBL domain reveal an interaction that forms a conserved dynamic interface.” (2012) *Cell Rep.* v2 n6 pp1620-1632. Epub 2012 Nov 8. PMID: 23142665. <https://doi.org/10.1016/j.celrep.2012.10.010>
31. Shiho Tanaka and **William Clemons, Jr**. “Minimal requirements for inhibition of MraY by lysis protein E from bacteriophage ΦX174.” (2012) *Mol. Microbiol.* v85 n5 pp975-985. Epub 2012 Jul 13. PMID: 22742425. <https://doi.org/10.1111/j.1365-2958.2012.08153.x>
30. Justin Chartron, **William Clemons, Jr.**, Christian Suloway. “The complex process of GETting tail-anchored proteins to the membrane. (REVIEW)” (2012) *Curr. Opin. Struct. Biol.* v22 n2 pp217-224. Epub 2012 Mar 21. PMID: 22444563. <https://doi.org/10.1016/j.sbi.2012.03.001>
29. Justin Chartron, David Vandervelde, Michael Rao, **William Clemons, Jr**. “The Get5 carboxyl terminal domain is a novel dimerization motif that tethers an extended Get4/Get5 complex.” (2012) *J. Biol. Chem.* v287 n11 pp8310-8317. Epub 2012 Jan 17. PMID: 22262836. <https://doi.org/10.1074/jbc.m111.333252>
28. Christian Suloway, Michael Rome, **William Clemons, Jr**. “Tail-anchor targeting by a Get3 tetramer: the structure of an archaeal homologue.” (2012) *EMBO J.* v31 n3 pp707-719. Epub 2011 Nov 29. PMID: 22124326. <https://doi.org/10.1038/emboj.2011.433>
27. Justin Chartron, Grecia Gonzalez, **William Clemons, Jr**. “A structural model of Sgt2 and its interactions with chaperones and Get4/Get5.” (2011) *J. Biol. Chem.* v286 n39 pp34325-34334. Epub 2011 Aug 10. PMID: 21832041. <https://doi.org/10.1074/jbc.m111.277798>
26. Justin Chartron, Christian Suloway, Ma’ayan Zaslaver, **William Clemons, Jr**. “Structural characterization of the Get4/Get5 complex and its interaction with Get3.” (2010) *Proc. Natl. Acad. Sci.* v107 n27 pp12127-12132. Epub 2010 Jun 16. PMID: 20554915. <https://doi.org/10.1073/pnas.1006036107>
25. Christian Suloway, Justin Chartron, Ma’ayan Zaslaver, **William Clemons, Jr**. “Model for eukaryotic tail-anchored protein binding based on the structure of Get3.” (2009) *Proc. Natl. Acad. Sci.* v106 n35 pp14849-14854. Epub 2009 Aug 14. PMID: 19706470. <https://doi.org/10.1073/pnas.0907522106>
24. Suresh Ramasamy and **William Clemons, Jr**. “Structure of the twin-arginine signal binding protein DmsD from *Escherichia coli*.” (2009) *Acta Cryst. F.* v65 n8 pp746-750. Epub 2009 Jul 21. PMID: 19652330. <https://doi.org/10.1107/s1744309109023811>

23. Jean-Francois Menetret, Julia Schaletzky, William Clemons, Jr., Andrew Osborne, Sigrid Skanland, Carilee Denison, Stephen Gygi, Don Kirkpatrick, Eunyong Park, Steven Ludtke, **Tom Rapoport**, **Christopher Akey**. "Ribosome binding of a single copy of the SecY complex: implications for the initiation of protein translocation." (2007) *Mol. Cell*. v28 n6 pp1083-1092. PMID: 18158904. <https://doi.org/10.1016/j.molcel.2007.10.034>
22. Margaret Smith, William Clemons, Jr., Catherine DeMars, **Ann Flower**. "Modeling the effects of *prl* mutations on the *Escherichia coli* SecY complex." (2005) *J. Bacteriol.* v187 n18 pp6454-6465. PMID: 16159779. <https://doi.org/10.1128/jb.187.18.6454-6465.2005>
21. Kurt Cannon, Eran Or, William Clemons, Jr., Yoko Shibata, **Tom Rapoport**. "Disulfide bridge formation between SecY and a translocating polypeptide localizes the translocation pore to the center of SecY." (2005) *J. Cell Biol.* v169 n2 pp219-225. PMID: 15851514. <https://doi.org/10.1083/jcb.200412019>
20. William Clemons, Jr., Jean-François Ménétret, Christopher Akey, **Tom Rapoport**. "Structural insight into the protein translocation channel (REVIEW)." (2004) *Curr. Opin. Struct. Biol.* v14 n4 pp390-396. PMID: 15313231. <https://doi.org/10.1016/j.sbi.2004.07.006>
19. Andrew Osborne, William Clemons, Jr., **Tom Rapoport**. "A large conformational change of the translocation ATPase SecA." (2004) *Proc. Natl. Acad. Sci.* v101 n30 pp10937-10942. Epub 2004 Jul 15. PMID: 15256599. <https://doi.org/10.1073/pnas.0401742101>
18. Bert van den Berg, Paul Black, William Clemons, Jr., **Tom Rapoport**. "Crystal structure of the long-chain fatty acid transporter FadL." (2004) *Science*. v304 n5676 pp1506-1509. PMID: 15178802. <https://doi.org/10.1126/science.1097524>
17. Bert van den Berg\*, William Clemons, Jr.\*, Ian Collinson, Yorgo Modis, Enno Hartmann, Stephen Harrison, and **Tom Rapoport**. "X-ray structure of a protein conducting channel." (2004) *Nature*. v427 n6969 pp36-44. Epub 2003 Dec 3. PMID: 14661030. <https://doi.org/10.1038/nature02218>
16. Ditlev Brodersen, William Clemons, Jr., Andrew Carter, Brian Wimberly, **Venki Ramakrishnan**. "Phasing the 30S ribosomal subunit structure." (2003) *Acta Crystallogr. D*. v59 n11 pp2044-2050. Epub 2003 Oct 23. PMID: 14573961. <https://doi.org/10.1107/s0907444903017669>
15. Ditlev Brodersen, William Clemons, Jr., Andrew Carter, Brian Wimberly, **Venki Ramakrishnan**. "Crystal structure of the 30S ribosomal Subunit from *Thermus thermophilus*. Structure of the proteins and their interactions with 16S RNA." (2002) *J. Mol. Biol.* v316 n3 pp725-768. PMID: 11866529. <https://doi.org/10.1006/jmbi.2001.5359>
14. William Clemons, Jr., Ditlev Brodersen, John McCutcheon, Joanna May, Brian Wimberly, Andrew Carter, Robert Morgan-Warren, **Venki Ramakrishnan**. "Crystal structure of the 30S ribosomal subunit from *Thermus thermophilus* I. Purification, crystallization and structure determination." (2001) *J. Mol. Biol.* v310 n4 pp827-843. PMID: 11453691. <https://doi.org/10.1006/jmbi.2001.4778>
13. James Ogle, Ditlev Brodersen, William Clemons, Jr., Michael Tarry, Andrew Carter, **Venki Ramakrishnan**. "Recognition of cognate transfer RNA by the 30S ribosomal subunit." (2001) *Science*. v292 n5518 pp897-902. PMID: 11340196. <https://doi.org/10.1126/science.1060612>
12. Andrew Carter, William Clemons, Jr., Ditlev Brodersen, Robert Morgan-Warren, Thomas Hartsch, Brian Wimberly **Venki Ramakrishnan**. "Crystal structure of an initiation factor bound to the 30S ribosomal subunit." (2001) *Science*. v291 n5503 pp498-501. PMID: 11228145. <https://doi.org/10.1126/science.1057766>
11. Ditlev Brodersen, William Clemons, Jr., Andrew Carter, Robert Morgan-Warren, Brian Wimberly, **Venki Ramakrishnan**. "The structural basis for the action of the antibiotics tetracycline, pactamycin, and hygromycin B on the 30S ribosomal subunit." (2000) *Cell*. v103 n7 pp1143-1154. PMID: 11163189. [https://doi.org/10.1016/s0092-8674\(00\)00216-6](https://doi.org/10.1016/s0092-8674(00)00216-6)
10. Brian Wimberly\*, Ditlev Brodersen\*, William Clemons, Jr.\*, Robert Morgan-Warren\*, Andrew Carter\*, Clemens Vonrhein, Thomas Hartsch, **Venki Ramakrishnan**. "The Structure of the 30S Ribosomal Subunit." (2000) *Nature*. v407 n6802 pp327-339. PMID: 11014182. <https://doi.org/10.1038/35030006>
9. Andrew Carter\*, William Clemons, Jr.\*, Ditlev Brodersen\*, Robert Morgan-Warren, Brian Wimberly, **Venki Ramakrishnan**. "Functional insights from the structure of the 30S ribosomal subunit and its interactions with antibiotics." (2000) *Nature*. v407 n6802 pp340-348. PMID: 11014183. <https://doi.org/10.1038/35030019>
8. Peter Allard, Alexey Rak, Brian Wimberly, William Clemons, Jr., Alexander Kalinin, Magnus Helgstrand, Maria Garber, Venki Ramakrishnan, **Torleif Härd**. "Another piece of the ribosome: solution structure of S16 and its location in the 30S subunit." (2000) *Structure*. v8 n8 pp875-882. PMID: 10997906. [https://doi.org/10.1016/s0969-2126\(00\)00177-5](https://doi.org/10.1016/s0969-2126(00)00177-5)
7. **Venki Ramakrishnan**, Malcolm Capel, William Clemons, Jr., Joanna May, Brian Wimberly. "Progress toward the crystal structure of a bacterial 30S ribosomal subunit." (2000) In Garrett et al (eds). *The Ribosome* ASM Press, Washington D.C. pp3-10.
6. Stephen White, William Clemons Jr., Christopher Davies, **Venki Ramakrishnan**, Brian Wimberly. "Structures of bacterial ribosomal proteins: High resolution probes of the architecture and mechanism of the ribosome." (2000) In Garrett et al (eds). *The Ribosome* ASM Press, Washington D.C. pp66-72.
5. William Clemons Jr, Krishne Gowda, Shaun Black, Christian Zweib, & **Venki Ramakrishnan**. "Crystal structure of the conserved subdomain of human protein SRP54m at 2.1Å resolution: Evidence for the mechanism of signal peptide binding." (1999) *J. Mol. Biol.* v292 n3 pp697-705. PMID: 10497032. <https://doi.org/10.1006/jmbi.1999.3090>

4. William Clemons Jr.\*, Joanna May\*, Brian Wimberly\*, John McCutcheon, Malcolm Capel, **Venki Ramakrishnan**. "Structure of a bacterial 30S ribosomal subunit at 5.5Å resolution." (1999) *Nature*. v400 n6747 pp833-840. <https://doi.org/10.1038/23631>
3. Krishne Gowda, William Clemons Jr., Shaun Black, **Christian Zweib**. "Expression, purification, & crystallography of the conserved methionine-rich domain of human signal recognition particle 54kDa protein." (1999) *Protein Sci*. v8 n5 pp1144-1151. PMID: 10338025. <https://doi.org/10.1110/ps.8.5.1144>
2. John McCutcheon, Rajendra Agrawal, Shibu Philips, Robert Grassucci, Sue Ellen Gerchman, William Clemons Jr., **Venki Ramakrishnan, Joachim Frank**. "Location of translational initiation factor IF3 on the small ribosomal subunit." (1999) *Proc. Natl. Acad. Sci*. v96 n8 pp4301-4306. PMID: 10200257. <https://doi.org/10.1073/pnas.96.8.4301>
1. William Clemons Jr., Christopher Davies, Steven White, **Venki Ramakrishnan**. "Conformational variability of an N-terminal helix in the structure of ribosomal protein S15", (1998) *Structure*. v6 n4 pp429-438. PMID: 9562554. [https://doi.org/10.1016/s0969-2126\(98\)00045-8](https://doi.org/10.1016/s0969-2126(98)00045-8)

## Patents

Ditlev Brodersen, Andrew Carter, William Clemons, Jr., Venki Ramakrishnan, Brian Wimberly. "Crystal Structure of the 30S Subunit and Its Use." US Patent 7,606,670; 20020106660, GB Patents 0017376.5 and 0022943.5.

William Clemons, Jr., Kyoung-soon Jang, Sergiy Levin, Roger Nani, and Sarah Reisman. "Cysteine Hydrazide Nicotinamide for Glycomics and Glycoproteomics Studies." US Patent 9,541,558, US 20140072981 A1.

Thomas Miller, III, William Clemons, Jr., Stephen Marshall, Axel Mueller, Michiel Niesen, Bin Zhang. "Translocon-associated biogenesis features and related methods, systems, and products." US Patent 10,108,776 B1.

Shyam Saladi & William Clemons, Jr. "Methods and systems for predicting membrane protein expression based on sequence-level information." US Patent 11,545,326 B2.

Michio Kurosu & William Clemons. "Glycosyltransferase Inhibitors For Treatment of Solid Tumors." US Patent No. 11,597,743 B2. International patent PCT/US2019/013152, Filed Jan. 30, 2019.

## Teaching

Ch/Bi 110a: Introduction to Biochemistry 2019 – 2023  
 BMB202abc: Biochemistry Seminar Course 2010 – 2023  
 BMB170abc: Biochemistry and biophysics of macromolecules & molecular assemblies 2008 – 2017  
 BMB170: Principles of three-dimensional protein structure 2006 & 2007

## Service

### Internal

**Campus:** Molecular Observatory advisory committee (2007-Present); EM facility advisory committee (Chair 2018, 2015-present); President's Diversity Council (Chair, 2019-2023, Member, 2015-2023); Graduate Studies Committee for Caltech (2013-2023); Beckman Institute Executive Committee (2021-2023); Caltech Shines Planning Committee (2021-2023); CEMI steering committee (2019-2023); Graduate Dean Search Committee (2019-20); Climate Survey Working Group (2021); Committee for Student Admissions & Recruiting (2020-21); Rosen Bioengineering Steering Committee (2018-2020); Undergraduate Academic Standards and Honors Committee (2019-2020); Faculty Board (2015-18); Student Life and Housing Committee (2013-16)

**CCE Division:** BMB Graduate Option Representative (2013-2023); Admissions/Graduate Studies Committee for BMB option (2006-2023); CCE DEI Committee (2020-2023); CCE Space committee (2018-2023); Biochemistry seminar organizer (2007-2020); 12 faculty search committees (Andre Hoelz, Mitch Guttman, Dan Semlow, & Shasha Chong); Graduate Studies Committee for Chemistry option (2011-2023); CCE Instrumentation Committee (2016-2019)

### External

**Editorial Boards:** *J. Biol. Chem.* (2014-present), *J. Mol. Biol* (2020-present), *Cell Reports* (2012-2023)

**Foundations and Review Boards:** The Pew Scholars Advisory Committee (2021-Present), Interdisciplinary Quantitative Biology Program Board – CU Boulder (2021-Present), Blavatnik National Life Science Committee (2024)

**Reviewer:** *Acta Cryst D*, *Biochemistry*, *Biochem J*, *BioEssays*, *Cell*, *Cell Reports*, *Current Biology*, *eLife*, *EMBO J*, *J Cell Biol*, *JACS*, *JBC*, *JMB*, *Mol Biol Cell*, *Mol Cell Phys*, *Nature*, *Nature Comm*, *Nature Struct Mol Biol*, *The Plant J*, *PLoS Biology*, *PNAS*, *Science*, *Structure* and grants for the UK BBSRC.

**Society Roles:** National Academies of Science, Engineering, and Medicine–Committee on Equitable and Effective Teaching in Undergraduate STEM Education (2023-2024); The Protein Society, Executive council (2018-2021), DEI committee (2019-present, Chair 2020-2023), Nomination Committee (2014-17); ASBMB 2012 Annual Meeting Organizing Committee (2011-12), Member of The Protein Society, American Society of Biochemists and Molecular Biologists, The Biophysical Society

**NIH Service:** NCI Board of Scientific Counselors (2023-Present); Study Sections – ZRG1 MBBC-U 2022, DP5 Review Panel 2021, Macromolecular Structure and Function C, Member (2016-20) and *ad hoc* for June 2012 & Oct. 2014; Membrane Biology and Protein Processing, *ad hoc* February 2012; MIRA grants for NIGMS, *ad hoc* Nov. 2015; PRAT fellowships, *ad hoc* 2016; Pioneer Award Panel, *ad hoc* 2016 & 2017; Program Project Grant reviewer for NIAID *ad hoc* 2014

**Scientific Presentations (Selected)****Public talks**

WALS NIH Director's Lecture (2024): "[Mechanisms of phage-derived protein antibiotics](#)"

Watson Lecture Series Caltech (2024): "[Combating future pandemics with viruses](#)"

Broad-MIT Seminars in Chemical Biology (2023): "[Mulum in Parvo: Mechanism of a Phage Derived antibiotic](#)"

Watson Lecture Series Caltech (2015): "[How do you make a greasy protein?](#)"

**2026:** Sweeley Lecture, Michigan State, Biochemistry and Molecular Biology, East Lansing, MI.

**2025:** [Annual Biomedical Research Conference for Minority Students](#) (ABRCMS), San Antonio, TX, attendee; University of California, Los Angeles, Organic Colloquium, Los Angeles, CA; Cornell University, Chemistry Department, Ithaca, NY; [25<sup>th</sup> Anniversary Ribosome Structure Symposia](#), Cambridge, UK; University of California, Berkeley, iBio symposium, Berkeley, CA; Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czechia; [International School "Frontiers in Biophysics"](#), Erice, Italy, Lecturer; [GRC Membrane Protein Folding](#), Castelldefels, Spain, Speaker; CZI Workshop, [Accelerating Science in Latin America](#), Mexico City, Mexico; University of California, Davis, MCB Department Seminar and [Juneteenth Symposium](#), Davis, CA; [CZI Annual APH Symposium](#), Morehouse School of Medicine, Atlanta, Georgia; [NAS Annual Meeting](#), Washington, DC; [ASBMB Annual Meeting](#), Chicago, IL, Speaker; [Pew Annual Biomedical Awards Meeting](#), Bermuda; [West Coast Structural Biology Meeting](#), Asilomar, CA; [NASEM Latin America Connections Meeting](#), Lima, Peru; [Third US-Africa/USA Frontiers of Science, Engineering, and Medicine](#), NASEM, Kigali, Rwanda, Committee member; MBSB Series, Pitt/Carnegie Mellon, Pittsburgh, PA; [Friday Lecture Series](#), The Rockefeller University, New York, NY

**2024:** [NIH Director's Lecture](#), NIH WALS, Bethesda, MD; [Annual Biomedical Research Conference for Minority Students](#) (ABRCMS), Pittsburgh, PA; [Watson Lecture](#), Caltech, Pasadena, CA; University of Colorado, MCDB Seminar, Boulder, CO; [EMBO Protein Targeting and Translocation](#), Sant Feliu de Guixols, Spain, Speaker; Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czechia; [International School "Frontiers in Biophysics"](#), Erice, Italy, Lecturer; [BPS Molecular Biophysics of Membranes](#), Tahoe City, CA, Speaker; Stanford University, Chemical Biology, Palo Alto, CA; Fred Hutch Cancer Center, Current Biology Seminar, Seattle, WA; University of Washington, Microbiology, Seattle, WA; Washington University School of Medicine, Student Invited Biochemistry and Molecular Biophysics Seminar, St. Louis, MO; Emory University, Chemistry, Atlanta, GA; [NASEM First Connection in Latin America](#), Barranquilla, Colombia, Speaker; [Pollard Lecture in Biochemistry and Molecular Biology](#), Penn State University, State College, PA; [Wriston Lecture in Biochemistry](#), Univ. of Delaware, DE

**2023:** Medical College of Wisconsin, Milwaukee, WI, Student Invited Biochemistry Speaker; NextGen Symposium, Keynote Speaker (Virtual); [Annual Biomedical Research Conference for Minority Students](#) (ABRCMS), Phoenix, AZ; NAS Board Meeting, Speaker; [International School "Frontiers in Biophysics"](#), Erice, Italy, Lecturer; [The Protein Society Annual Meeting](#) Boston, MA, Invited Speaker; [JMB Annual Meeting](#), San Diego, CA, Invited Speaker; [FASEB ER Meeting](#), Melbourne, Florida, Invited Speaker; NCI Frederick, Division of Structural Biology, Invited Speaker; Broad/MIT Chemical Biology Series, Cambridge, MA; Arizona State, Biological Physics & Structural Discovery Series, Tempe, AZ; [Biophysical Society Annual Meeting \(BPS\)](#), San Diego, CA, Chair of "Black in Biophysics" symposium, speaker; University of Pennsylvania, Philadelphia, PA, IDEAL Research Diversity Day Lecture, Biochemistry & Biophysics invited speaker, [Lorne Proteins Conference](#), Lorne, Australia, Invited speaker; Indiana University, Bloomington, IN, "Who is paying the cost for diversity", Biochemistry & Chemical Biology seminar.

**2022:** [Annual Biomedical Research Conference for Minority Students](#) (ABRCMS), Anaheim, CA, Speaker/Exhibitor; [Endoplasmic Reticulum EMBO Workshop](#), Lucca, Italy, speaker; University of Utah [Jim McCloskey Lecture](#), Salt Lake City, UT; Caltech Associates Dinner, Keynote, New York, NY, [Biophysics Annual Symposium](#) at Wesleyan University, Keynote, Middletown, CT, [The Protein Society Annual Meeting](#), San Francisco, panel leader; Johns Hopkins Medical School, Biophysics, Baltimore, MD; Meharry Medical College, Biochemistry; Nashville, TN; [Integrated Applications of Structural Biology Symposium](#), speaker, Vanderbilt University, Nashville, TN; Northwestern University, Biochemistry seminar, Evansville, IL; University of Michigan [Martha L. Ludwig Lectureship in Structural Biology](#), Ann Arbor, MI; [ASBMB Annual Meeting](#), Philadelphia, PA; University of California San Francisco, Biochemistry seminar, San Francisco, CA; University of California Berkeley, SQB Seminar, Berkeley, CA; University of Colorado Boulder, Molecular Biophysics Trainees Speaker, Boulder, CO; University of Rochester School of Medicine, Biochemistry and Biophysics, Rochester, NY

**2021:** [Rockefeller Inclusive Science Initiative Distinguished Speaker](#) "How we got here and where do we go", Rockefeller University, New York, NY (Remote); [Tri-Institute Chemical Biology Symposium](#) (Rockefeller, Cornell Med, Sloan-Kettering), Keynote Speaker, New York, NY; [The Protein Society Annual Meeting](#) "Diversifying Protein Science II" (Remote); University of Texas - Southwestern, PROVIDES seminar (Remote), Houston, TX; Notre Dame (Remote), Biophysics Student Seminar, South Bend, IN; University of Illinois Medical School (Remote), Biochemistry Department, Chicago, IL; University of Michigan (Remote), CMB DEI Taskforce, "Who's Paying the Cost for Diversity", Ann Arbor, MI; University of California Los Angeles (Remote), Molecular Biology Institute, Los Angeles, CA; Harvard Medical School (Remote), BCMP, Boston, MA; Fisk University Chemical Colloquia (Remote), Nashville, KY; University of Cambridge (Remote), Chemistry Dept, Cambridge, UK; University of Maryland (Remote), College Park, MD; Case Western Reserve University (Remote), Cleveland, OH; University of Massachusetts Medical School (Remote), Worcester, MA; [The Biophysical Society Annual Symposia](#) (Remote) "President's Symposium: Building an Inclusive Biophysical Society" speaker

**2020:** The Ohio State University (Remote), RCR trainees DEI discussion, Columbus, OH; University of Massachusetts (Remote), Amherst, MA; ABRCMS virtual meeting, Exhibitor; The Protein Society Webinar “Diversifying Protein Science”; Cold Spring Harbor Laboratory, NY

**2019:** Annual Biomedical Research Conference for Minority Students (ABRCMS), Long Beach, CA, Exhibitor; Chemistry Summer Seminar Series, Caltech, Pasadena, CA; GRC Membrane Protein Folding, Stonehill College, MA, Presenter; 33<sup>rd</sup> Annual Symposium of the Protein Society Seattle, WA; Institute of Parasitology, University of South Bohemia, Ceske Budejovice, Czech Republic; Department of Pathology, Oxford University, Oxford, UK; Laboratory of Molecular Biology, Cambridge University, Cambridge, UK

**2018:** Institute of Organic Chemistry and Biochemistry, Prague, Czech Republic; Cold Spring Harbor Laboratory Course X-Ray Methods in Structural Biology, NY, Instructor; Washington University, St. Louis, MO; International School of Biological Magnetic Resonance, Erice, Italy, Lecturer; Stanford University, Palo Alto, CA; Virginia Tech, Blacksburg, VA; GRC Protein Transport Across Membranes Galveston, TX; Oregon State University, Corvallis, OR; University of North Carolina, Chapel Hill, NC

**2017:** St. Jude Children’s Hospital, Memphis, TN; University of Tennessee Health Science Center, Memphis, TN; Frontiers in Membrane Protein Structural Dynamics, Argonne, IL; Annual Biomedical Research Conference for Minority Students (ABRCMS), Phoenix, AZ, Exhibitor; Ohio State University, Columbus, OH, Århus University, Denmark; The Ins & Outs of Membrane Biology, Hemavan, Sweden; International School of Biological Magnetic Resonance, Erice, Italy, Lecturer; Johns Hopkins University, Baltimore, MD; Biophysical Society Annual Meeting, New Orleans, LA; Princeton University, Princeton, NJ; West Coast Crystallography Course, CA

**2016:** University of Michigan, Ann Arbor, MI; Wayne State University Medical School, Detroit, MI; Annual Biomedical Research Conference for Minority Students (ABRCMS), Tampa, FL, Exhibitor; SACNAS Annual Meeting, Long Beach, CA, Presenter; Inst. of Org. Chem. and Bioch. of the Czech Academy of Sciences, Prague, Czech Republic; 30<sup>th</sup> Anniversary Symposium of the Protein Society, Baltimore, MD, Presenter; University of Maryland, Baltimore County; International School of Biological Magnetic Resonance, Erice, Italy, Lecturer; University of Pittsburgh, PA; GRC Protein Transport Across Membranes Galveston, TX, Session leader

**2015:** Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA, Exhibitor; ACA Annual Meeting, Philadelphia, PA, Presenter; Amgen Scholars Meeting, UCLA, Keynote speaker; GRC Membrane Protein Folding, Waltham, MA, Presenter; University of Tennessee, Knoxville, TN; Watson Lecturer, Caltech, Pasadena, CA

**2014:** Indiana University, Bloomington, IA; Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX, Exhibitor; International School of Biological Magnetic Resonance, Erice, Italy, Lecturer; FASEB Protein Folding in the Cell, Saxby River, VT, Presenter; Miami University, Oxford, IL; GRC Protein Transport Across Membranes Galveston, TX, Presenter

**2013:** Northwestern University, Evanston, IL; University of Chicago, Chicago, IL; University of California, Irvine, CA; University of Virginia, Charlottesville, VA; University of Maryland, Baltimore County, MD; Johns Hopkins University School of Medicine, Baltimore, MD; Massachusetts Institute of Technology, Cambridge, MA; Laboratory of Molecular Biology, Cambridge, United Kingdom; Oxford University, Oxford, United Kingdom; Imperial College, London, United Kingdom; Stanford University, Palo Alto, CA; Yale University, New Haven, CT; GRC Glycobiology, Ventura, CA, Poster; City College New York, NY; The Scripps Research Institute, San Diego, CA

**2012:** Weill Cornell Medical, New York, NY; Protein Society Annual Meeting, San Diego, CA; University of San Diego, San Diego, CA; ASBMB Annual Meeting, San Diego, CA; National Institutes of Health, Bethesda, MD; GRC Protein Transport Across Membranes Galveston, TX, Poster; University of California at Los Angeles, Los Angeles, CA

**2011:** University of Wisconsin, Madison, WI

**2010:** University of California at Berkeley, Berkeley, CA; Texas A&M, College Station, TX; University of Toronto, Ontario, Canada; GRC Protein Transport Across Membranes Galveston, TX, Speaker

**2009:** Stockholm University, Sweden; California State University, Los Angeles; University of Colorado, Boulder; Protein Society Annual Meeting “Proteins in Motion”, Boston, Speaker

**2007:** GRC Proteins, New Hampshire

**2006:** 8th International School of Crystallography, MAX/INF, Como, Italy

**2005:** Carlsberg Research Center, Copenhagen, Denmark; Stockholm University, Stockholm, Sweden; Århus University, Århus, Denmark; 11<sup>th</sup> DRDC-IBS Workshop, Autrans, France

**2004:** University of Maryland, Baltimore County, MD; University of Utah, Salt Lake City, UT; American Crystallographic Association, Chicago, IL; GRC Endocytosis and Lysosomes, NH; Keystone Symposia, Frontiers in Structural Biology, Snowbird, UT

**2002:** Vertex Pharmaceuticals Inc., Cambridge, MA; Pfizer Inc., Groton, CT

**2001:** Daresbury Laboratories, Daresbury, United Kingdom; RNA Society of Cambridge, Cambridge, United Kingdom; 3<sup>rd</sup> Cell Biology Symposium on Protein Transport and Stability, Berlin, Germany

**2000:** Rockefeller University, New York City, NY; Harvard Medical School, Boston, MA

## Lab Members

### Current:

Vida Storm Robertson, Grad, BMB, 2025  
Angham Ahmed, Grad, BMB, 2024  
Roujon Nowzari, Grad, BMB, 2024  
Grace Baron, Grad, Chemistry, 2024

Juliet Lee, Grad, BMB, 2022  
Yusrah Kaudeer, Grad, Chemistry, 2022  
Isabel Hernandez Rodriguez, Grad, Chemistry, 2024  
Connor Wells, Grad, Chemistry, 2024

Evelyn Li, Grad, BMB, 2021  
 Victor Garcia, Grad, BMB, 2020  
 Jacob Kirsh, Post-Doc, 2024

Former:Graduate Students

Shivansh Majajan, Grad, BMB, 2019-2025, Post-doc, MPI  
 Alexandra Barlow, Grad, BMB, 2018-25  
 Karen Orta, Grad, BMB 2019-24; Post-doc, Scripps Research  
 Institute  
 Shyam Saladi, Grad, BMB, 2014-23; CEO, Neelyx Labs  
 Michelle Fry, Grad, BMB, 2016-21; Post-doc, Harvard  
 Medical School  
 Hyun Gi Yun, Grad, Chemistry, 2013-19, Scientist, Anylam  
 Pharmaceuticals  
 Stephen Marshall, Grad, Chemistry, 2013-2017, Director,  
 Strategic Analysis at Regeneron Pharmaceuticals, Inc.  
 Amanda Jee-Young Mock, Grad, BMB, 2011-2017,  
 Engineering Program Manager, Apple  
 Harry Gristick, Grad, BMB, 2009-2015, Research Scientist,  
 Caltech  
 Justin Chartron, Grad, BMB, 2006-2012, Protein Engineering  
 Scientist, Protabit  
 Christian Suloway, Grad, Biology, 2006 – 2012, Genomics  
 Data Scientist, Medidata Solutions

Post-doctoral

Jessica Ochoa, Post-Doc, 2021-24, Asst Prof, Whittier  
 College  
 Hiwot Anteneh, Post-Doc, 2023  
 Nadia Riera Faraone, Post-Doc, 2017-2020, Senior Associate  
 Researcher, Inst. Pasteur de Montevideo, Adjunct  
 Professor, Universidad ORT Uruguay  
 Aye Myat Myat Thinn, Post-Doc, 2018-2020, Senior  
 Scientist, Amgen  
 Austin Rice, Ph.D. Northwestern Univ., Post-Doc, 2014-17,  
 Protein Engineer, Amgen  
 Geoffrey Lin, Ph.D. National Tsinghua Univ., Post-Doc,  
 2012-16, Senior Researcher, Industrial Tech. Research  
 Institute  
 Lada Klaic, Ph.D. Northwestern Univ., Post-Doc, 2012-16,  
 Senior Scientist, Capacity Bio  
 Axel Müller, Ph.D. York Univ., Staff Scientist, 2011-2016,  
 Research Scientist, Integrity Bio  
 Eugene Chun, Ph.D. The Scripps Research Institute, Post-  
 Doc, 2012, Scientist I, Synthorx  
 Vijay Somalinga, Post-Doc, 2012-14, Asst. Prof., South West  
 Oklahoma State Univ  
 Katrine Tieman, Post-Doc, 2011-12, Director, Translational  
 Development Center, City of Hope  
 Shiho Tanaka, Post-Doc, 2010-14, Principal Scientist,  
 ImmunityBio, Thousand Oaks, CA  
 Kyoung-soon Jang, Post-Doc, 2010-13, Principal Researcher,  
 Korean Basic Sci Inst  
 Suresh Kumar Ramasamy, Staff Scientist, 2006-12, Asst.  
 Prof., NCL-Pune, India  
 Yuko Tsutsui, Post-Doc, Case Western Univ, 2007 – 2011,  
 Research Associate, Yale Cancer Biology Institute  
 Axel Müller, Post-Doc, York Univ, 2006 – 2011  
 Alison Glazier, Post-Doc, Caltech 2006

Staff

Allen Lee, Lab Manager of Rees/Clemons Group  
 Cody Gillman, Research Technician, 2017-19  
 Aaron Motacek, Research Technician, 2015  
 Katrine Museth, Research Technician, 2011-14  
 Ma'ayan Zaslaver, Research Technician, 2007-12  
 Natalie Martin, Research Technician, 2011  
 Alice Chen, Research Technician, 2011  
 Matt Thornton, Research Technician, 2006-7

Undergraduates, diploma, and high school students

Yan Zhang, Post-Doc, 2024  
 Tiffany Safar, Research Technician, 2025  
 Grace Otos, Undergraduate, 2025

Camilla Fezzi, SURF, Caltech, 2025  
 Grace Tuhabonye, SURF, Caltech 2025  
 Grace Otos, SURF, Caltech 2025  
 Stanley Munoz, WAVE, UC Los Angeles, 2025  
 Diego Velázquez, WAVE, Instituto Tecnológico del Tijuana,  
 2025  
 Emi Fong, HS Student, 2025  
 Maya Yie, Undergraduate, 2024  
 Marie-Therese Soroush, Volunteer, 2024  
 Deron Donald, WAVE, Fayetteville State University, 2024  
 Anna Ngo, SURF, Univ. of Iceland, 2024  
 Gloria Nien, HS student, 2024  
 Luciana Piro, HS student, 2023  
 Lily DeBell, Undergrad, 2019-2024  
 Helen Brackney, Undergrad, 2021-2024  
 John Guardado, WAVE, UC Irvine, 2023  
 Celine Boucher, Undergrad, 2022  
 Vanessa Mechem, Undergrad, 2020-22  
 India Wesley-Cardwell, WAVE, Cal State LA, 2022  
 Manuel Holguin, WAVE, UC Irvine, 2022  
 Omar Santiago-Reyes, MIT (virtual), 2021  
 Paul Leclerc, Williams College (virtual), 2021  
 Andy Sun, HS student, 2018-2020  
 Kate Radford, Intern, 2019  
 Reeti Gulati, Undergrad, 2016-2018  
 Charles Nelson, Undergrad, 2016-2018  
 Victor Garcia, WAVE, UC Riverside, 2018  
 Katarzyna Zator, Undergraduate & SURF, 2018  
 Rita Aksenfeld, Undergraduate & SURF, 2017  
 Tatiana Brailovskaya, SURF, Caltech, 2017  
 Omoshola Aleru, Amgen, Fresno State Univ., 2016  
 Nadine Bradbury, SURF, Caltech, 2016  
 Alex Chu, Amgen, Brigham Young Univ., 2016  
 Catherine Day, SURF, Caltech, 2016  
 Romanus Hutchens, WAVE, Univ. of Missouri, 2016  
 Gyu Bin Jang, SURF, Caltech, 2016  
 Sam Schulte, Amgen, Univ. of Iowa, 2016  
 Anthony Jones, MURF, Cal State – Dominguez Hills, 2014  
 Amarise Little, SURF, Caltech, 2014  
 Nauman Javad, SURF, 2013, Caltech, 2014-16  
 Shyam Saladi, SURF, Univ. of Illinois UC, 2012-14  
 Sumin Kim, SURF, MIT, 2013  
 Arun Chandra, SURF, Caltech, 2013  
 Esha Wang, Caltech, 2012  
 Doreen Chen, Caltech, 2012  
 Jacqueline Maslyn, Caltech, 2012  
 Tinyi Chu, Hong Kong Undergraduate Research Fellow, 2011  
 Jaeyoon Chung, Volunteer, Caltech, Chemistry, 2011  
 Katherine Brugman, SURF, UC Berkeley, 2011  
 Anastasia Zinchenko, Diplom, Univ of Saarbruken, 2011  
 Tamara Stegmenn, Diplom, Univ of Utrecht, 2011  
 Grecia Gonzalez, MURF, Harvard Univ, 2010  
 David Machejewski, Amgen, Boston College, 2010  
 Jennifer Timm, Diplom, Univ of Konstanz, 2009 – 2010  
 Nadia Iqbal, Undergrad, Bioengineering, 2009 – 2011  
 Alan Deng, Undergrad, Chemistry, 2009  
 Yee-ra Jo, Undergrad, Biology, 2009  
 Grace Wu, Amgen, Univ of Chicago, 2009  
 Christine Hanna, MURF Program, Summer 2008  
 Kangway Chuang, SURF, Caltech, 2008  
 Caroline Nguyen, HS Student, 2008  
 Tom Lampo, SURF, Caltech 2008  
 Damien Soghoian, Caltech 2006 – 2008  
 Sunny Chun, Caltech 2006 - 2008  
 Monique Hall, MURF, 2006