

Robin Evans Stanley, Ph.D.
Curriculum Vitae

CONTACT

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ResearcherID: C-7128-2019

EDUCATION

- | | |
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| 2003 | B.A.(Mathematics) <i>Magna Cum Laude</i> , University of North Carolina at Charlotte |
| 2003 | B.S. (Chemistry) <i>Magna Cum Laude</i> , with Departmental and University Honors, University of North Carolina at Charlotte |
| 2005 | M.Phil. (Molecular Biophysics and Biochemistry), Yale University |
| 2009 | Ph.D. (Molecular Biophysics and Biochemistry), Yale University |

RESEARCH TRAINING and PROFESSIONAL POSITIONS

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| 2000-2003 | Undergraduate Research University of North Carolina at Charlotte Advisor: Daniel S. Jones, PhD, Chemistry Department Thesis Title: <i>X-ray crystallographic studies of ligand metal complexes</i> |
| 2001-2003 | Physical Science Aid (Summers only) Laboratory for the Structure of Matter Naval Research Laboratory, Washington, DC Advisors: Jerome Karle, PhD and Richard Girardi, PhD <i>X-ray crystallographic studies of novel energetic molecules and their precursors</i> |
| 2003-2009 | Graduate Research Department of Molecular Biophysics and Biochemistry, Yale University Advisor: Thomas A. Steitz, PhD Thesis Title: <i>Structural studies of the 70S ribosome and its associated factors</i> |
| 2009-2014 | Postdoctoral Fellow National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD Advisor: James H. Hurley, PhD <i>Structural Studies of the autophagy related Atg1 kinase complex</i> |

2014- **Earl Stadtman Tenure Track Investigator**
Signal Transduction Laboratory
National Institute of Environmental Health Sciences
National Institutes of Health
Research Triangle Park, NC

AWARDS & HONORS

1999-2003 Reece A. Overcash Merit Scholarship (UNC Charlotte)
1999-2003 Robert C. Byrd Merit Scholarship
2001 Gary Howard Analytical Chemistry Award (UNC Charlotte)
2001 University Commencement Marshall (UNC Charlotte)
2002 Carolina's Chemical Club Undergraduate Research Scholarship
2002-2003 Alumni Association Scholarship for Merit (UNC Charlotte)
2003 UNC Charlotte Commencement Bell Ringer
2003 Manuel L. Zapata Phi Kappa Phi Graduate Fellowship
2003 Bonnie E. Cone Memorial Phi Kappa Phi Graduate Fellowship
2006 Excellence in Teaching Award, MB&B, Yale University
2009-2014 Nancy Nossal Fellowship Award, NIDDK/NIH
2010-2012 Damon Runyon Cancer Research Foundation Fellowship
2013 NIDDK Fellows Retreat Best Talk Travel Award
2013-2014 L'Oréal USA for Women in Science Fellowship
2015-2017 NIEHS-NIDDK Trans Institutes Fellowship
2017 NIEHS Intramural Paper of the Year
2018 NIEHS Intramural Paper of the Year
2019 NIEHS Mentor of the Year
2019 NIEHS Intramural Paper of the Year

ORIGINAL SCIENTIFIC MANUSCRIPTS

For a complete list of publications please refer to:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/robin.stanley.1/bibliography/46468917/public/?sort=date&direction=ascending>

(Published under maiden name Robin Nicole Evans)

1. **RN Evans** and R Gilardi (2001). *(Z)-2-Nitroethenamine*. *Acta Cryst.* E57, 956-958.
2. QL Horn, DS Jones, **RN Evans**, CA Ogle and TC Masterman (2002). *Chloro(1,5-cyclooctadiene)(triphenylphosphine)rhodium(I)* *Acta Cryst.* E58, 51-52.
3. R Gilardi, JL Flippen-Anderson, and **R Evans** (2002). *cis-2,4,6,8-Tetranitro-1H,5H-2,4,6,8-tetraazabicyclo[3.3.0]octane, the energetic compound 'bicyclo-HMX'*. *Acta Cryst.* E58, 972-974.
4. R Gilardi, C George and **R Evans** (2002). *cis-2,4-Dinitro-6,8-dipropionyl-1H,5H-2,4,6,8-tetraazabicyclo[3.3.0] octane, a precursor of the energetic compound 'bicyclo-HMX'* *Acta Cryst.* E58, 969-971.
5. R Gilardi, **R Evans** and MX Zhang (2002). *(2E)-3-[(1E)-2-(5-Nitroisoxazol-3-yl)vinyloxy]prop-2-enal*. *Acta Cryst.* E58, 856-857.

6. R Gilardi and **RN Evans** (2003). *2-Methyl-4,5-dinitroimidazole*. *Acta Cryst.* E59, 1349-1350.
7. R Gilardi, PR Dave and **RN Evans** (2003). *1,3-Bis(4-fluorobenzenesulfonyl)-5-methylene-1,2,3,4,5,6-hexahydropyrimidine*. *Acta Cryst.* E59, 1286-1287.
8. **RN Evans**, R Gilardi and T Emrick (2003). *1-(p-Biphenyl)-4'-(2-naphthyl)cubane*. *Acta Cryst.* E59, 1283-1285.
9. R Gilardi and **RN Evans** (2003). *2,3,5,6-Tetrahydroxy-1,4-dinitrocyclohexane dihydrate*. *Acta Cryst.* E59, 1226-1227.
10. R Gilardi, **RN Evans** and R Duddu (2003). *1,3,5-Tris(4-fluorobenzenesulfonyl)-1,3,5-triazacyclohexane*. *Acta Cryst.* E59, 1187-1188.
11. R Gilardi, **RN Evans**, and PR Dave (2003). *1,4,8,11-Tetrabenzyl-6,13-dimethylene-1,4,8,11-tetraazacyclotetradecane-2,3,9,10-tetraone*. *Acta Cryst.* E59, 1126-1127.
12. **RN Evans**, DJ Mihalcik, DS Jones and D Rabinovich (2003). *cis-Dichlorotetrakis(2-mercapto-1-tert-butylimidazole)lead(II)*. *Acta Cryst.* E59, 370-372.
13. R Gilardi, **RN Evans** and GE Manser (2003). *3,3-Bis(difluoroaminomethyl)oxetane, a promising new energetic material*. *Acta Cryst.* E59, 2032-2034.
14. RJ Butcher, **R Evans**, and R Gilardi (2004). *2,5,7-Trinitro-2,5,7,9-tetraazabicyclo[4.3.0]nonan-8-one*. *Acta Cryst.* E60, 1376-1378.
15. RJ Butcher, **R Evans**, and R Gilardi (2004). *2,4,6-Trinitro-2,4,6,8-tetraazabicyclo[3.3.0]octan-7-one*. *Acta Cryst.* E60, 1543-1545
16. **RN Evans**, G Blaha, S Bailey, TA Steitz (2008). *The structure of LepA, the ribosomal backtranslocase*. *Proc Natl Acad Sci U S A.* 105(12):4673-8. PMID: 18362332 PMCID: PMC2290774

(Published under married name: Robin Evans Stanley)

17. G Blaha*, **RE Stanley***, TA Steitz (2009). *Formation of the First Peptide Bond: The Structure of EF-P bound to the 70S ribosome*. *Science* 325, 966-970. PMID: 19696344 PMCID: PMC3296453
***Both authors contributed equally**
 Commentary: A Liljas (2009) *Biochemistry, Leaps in translational elongation*. *Science* 326, 677-8.
 Johnson A: F1000Primer Recommendation; 10.3410/f.1165193.628124
18. **RE Stanley***, G Blaha*, RL Grodzicki, MD Strickler, TA Steitz (2010). *The structures of the anti-tuberculosis antibiotics viomycin and capreomycin bound to the 70S ribosome*. *Nat Struct Mol Biol* 17(3), 289-293. PMID: 20154709 PMCID: PMC2917106
***Both authors contributed equally**
19. MJ Ragusa*, **RE Stanley***, and JH Hurley (2012), *Architecture of the Atg17 Complex as a Scaffold for Autophagosome Biogenesis*. *Cell.* 151, 1501-1512. PMID: 23219485 PMCID: PMC3806636
***Both authors contributed equally**

Commentary: F Reggiori, and C Ungermann (2012), A dimer to bridge early autophagosomal membranes. *Cell* 151, 1403-5

Wollert T:F1000Prime Recommendation; 10.3410/f.717999297.793474615

20. CC Jao, MJ Ragusa, **RE Stanley**, and JH Hurley (2013). *A HORMA domain in Atg13 mediates PI 3-kinase recruitment in autophagy*. *Proc Natl Acad Sci.* 110(14), 5486-91. PMID: 23509291 PMCID: PMC3619307

21. G Stepanovic, CW Davies, **RE Stanley**, MJ Ragusa, DJ Kim, and JH Hurley. (2014) *Assembly and dynamics of the autophagy-initiating Atg1 complex*. *Proc Natl Acad Sci.* 111 (35) 12793-8 PMID: 25139988 PMCID:PMC4156731

22. S, Baskaran, LA Carlson, G Stephanovic, LN Young, GJ Kim, P Grob, **RE Stanley**, E Nogales, JH Hurley (2014) *Architecture and dynamics of the autophagic phosphatidylinositol 3-kinase*. *Elife*. doi: 10.7554/eLife.05115. PMID: 25490155 PMCID: PMC4281882

Fromme C: F1000Prime Recommendation; 10.3410/f.725270003.793504342

23. EM Romes, M Sobhany, **RE Stanley** (2016) *The Crystal Structure of the Ubiquitin-like Domain of Ribosome Assembly Factor Ytm1 and Characterization of Its Interaction with the AAA-ATPase Midasin*. *J Biol Chem*; 291(2):882-93. PMID: 26601951 PMCID: PMC4705406

24. YH Lo, EM Romes, MC Pillon, M Sobhany, **RE Stanley** (2017) *Structural Analysis Reveals the Features of Ribosome Assembly Factor Nsa1/WDR74 Important for Localization and Interaction with the AAA-ATPase Rix7/NVL2*. *Structure*. 25(5):762-772 PMID: 28416111 PMCID: PMC5415421

25. MC Pillon, M Sobhany, MJ Borngia, JG Williams, and **RE Stanley** (2017) *Grc3 Programs the Essential Endoribonuclease Las1 for Specific RNA Cleavage*. *Proc Natl Acad Sci.* PNAS Early Edition doi: 10.1073/pnas.1703133114 PMID: 28652339 PMCID: PMC5514736

26. YH Lo, MC Pillon, **RE Stanley** (2018) *Combining X-ray Crystallography with Small Angle X-ray Scattering to Model Unstructured Regions of Nsa1 from S. cerevisiae* *J Vis Exp.* (131) doi: 10.3791/56953. PMID: 2936421 PMCID: PMC5820766

27. MC Pillon, M Sobhany, and **RE Stanley** (2018) *Characterization of the polynucleotide kinase domain from the Grc3/Las1 RNA processing machinery*. *RNA* 24(5):721-738. PMID: 29440475 PMCID: PMC5900568

Kieft J and Eiler D: F1000Prime Recommendation; 10.3410/f.732665823.793551168

28. YH Lo, M Sobhany, AL Hsu, BL Ford, JM Krahn, MJ Borngia, and **RE Stanley** (2019) *Cryo-EM structure of the essential ribosome assembly AAA-ATPase Rix7*. *Nature Commun.* 10(1):513 doi: 10.1038/s41467-019-08373-0. PMID: 30705282. PMCID: PMC6355894

Featured as an NIH Intramural "Hot Paper" at irp.nih.gov

29. J Gordon, MC Pillon, and **RE Stanley** (2019) *No19 is a Spatial Regulator for the Human ITS2 Pre-rRNA Endonuclease-Kinase Complex*. *J Mol Biol.* 431(19):3771-3786. doi: 10.1016/j.jmb.2019.07.007 PMID: 31288032. PMCID: PMC6733650

30. MC Pillon, AL Hsu, JM Krahn, JG Williams, KH Goslen, M Sobhany, MJ Borgnia, and **RE Stanley** (2019) *Cryo-EM Reveals Active Site Coordination Within a Multienzyme pre-rRNA Processing Complex*. Nat Struct Mol Biol. 26(9):830-839 doi: 10.1038/s41594-019-0289-8. PMID: 31488907. PMCID: PMC6733591.

BOOK CHAPTERS, COMMENTARIES, AND REVIEWS

1. TA Steitz, G Blaha, CA Innis, **RE Stanley**, and D Bukley (2012). Structural Studies of the Functional Complexes of the 50S and 70S Ribosome, a Major Antibiotic Target. *Macromolecular Crystallography, MA Carronao and P Spadon (eds)*, Chapter 13, 135-148.
2. CC Jao, MJ Ragusa, **RE Stanley**, and JH Hurley (2013). *What the N-terminal domain of Atg13 looks like and what it does: A HORMA fold required for PtdIns 3-kinase recruitment*. Autophagy. 9(7). PMID: 23670046. PMCID: PMC3722324
3. **RE Stanley**, MJ Ragusa, and JH Hurley (2014). *The beginning of the end: How scaffolds and coalescing vesicles nucleate autophagosome biogenesis*. Trends in Cell Biology. (1): 73-81. PMID: 23999079. PMCID: PMC3877172
4. MC Pillon and **RE Stanley** (2018) *Nuclease integrated Kinase Super Assemblies (NiKs) and their role in RNA processing*. Current Genetics. 64(1): 183-190 PMID: 28929238. PMC: PMC5820773
5. MC Pillon, LH Lo, and **RE Stanley** (2019) *IT'S 2 for the price of 1: Multifaceted ITS2 processing machines in RNA and DNA maintenance*. DNA Repair. doi: 10.1016/j.dnarep.2019.102653. PMID: 31324529. PMCID: In Progress
6. M Prattes, LH Lo, H. Bergler, and **RE Stanley** (2019) *Shaping the nascent ribosome: AAA-ATPases in eukaryotic ribosome biogenesis*. Biomolecules. In press

DIVISION OF INTRAMURAL RESEARCH PROFESSIONAL SERVICE AND COMMITTEES

| | |
|--------------|--|
| 2014-2015 | NIH "I am Intramural" blog writer |
| 2015-Present | Referee NIH FARE awards review panel |
| 2015-Present | NIEHS Science Day Poster Judge |
| 2015 | NIH IRP Long Term Planning Implementation Committee |
| 2015-2016 | STL Seminar Series Organizer |
| 2015-2016 | DIR Retreat Organizing Committee |
| 2016 | NIEHS Intramural Innovation Awards Committee |
| 2016-Present | NIEHS Distinguished Lecture Series Committee |
| 2016-Present | NIEHS Health and Safety Committee (Vice chair 2019) |
| 2017-Present | NIEHS Protein Expression Core Facility Oversight Committee |
| 2017-Present | NIEHS Molecular Microscopy Core Facility Oversight Committee |
| 2018 | STL Fellows Retreat Co-organizer |
| 2018 | NIEHS Core Director Search Committee |
| 2018 | NIEHS Staff Scientist Search Committee (Scott Williams Lab) |
| 2018 | NIEHS Summer Student Poster Day Judge |
| 2018 | NIDDK-NIEHS Trans Institute Fellowship Review Panel |
| 2018 | NIH Stadtman Search Committee – RNA Biology |
| 2018-Present | NIEHS Mass Spec Core Facility Oversight Committee |

2019 AO Lead Search Committee
2019 NIEHS Staff Scientist Search Committee (Humphrey Yao Lab)
2019-2020 STL Seminar Series Organizer
2019-Present NIEHS Scholars Connect Advisory Committee

NATIONAL AND INTERNATIONAL SERVICE

2017 Planning Committee for the 2017 Symposium on RNA Biology XII: Tool and Target, UNC-Chapel Hill
2017 PEB Program at Yale, Careers in Government Panel Discussion
2018-Present Editorial Board Biochemistry Section, Journal of Visualized Experiments
2018 FASEB Machines on Genes Meeting Career Panel Discussion
2018 Poster Judge 11th International Conference on Ribosome Synthesis
2018 External Thesis Reviewer, McGill University
2019 Co-Chair 2019 Symposium on RNA Biology XIII: Tool and Target, Duke University
2019 NC Women of Color Research Network Symposium Speed Networking Volunteer
2019 Guest Lecturer, CHEM 732 Macromolecular Structure and Function, UNC Chapel Hill, Department of Chemistry
2019 Organizing Committee RTP Cryo-EM Symposium

Ad hoc Reviewer Journals: eLife, Nature Structural and Molecular Biology, Nature Communications, Scientific Reports, PLOS Biology, Journal of Cell Science, TIBS, Journal of Molecular Biology, RNA, Journal of Structural Biology, Antiviral Research, Journal of Visualized Experiments, AKTA Cryst, Cells

Ad hoc Reviewer Grants: NSF, FWF Austrian Science Fund, ISF (Israel Science Foundation), ANR (French National Research Agency), Nazarbayev University Research Review

INVITED/SELECTED TALKS

2007 Center for Structural Biology Seminar Series, Yale University
2009 RNA Club, Yale University
2013 Structural Analysis of Supramolecular Assemblies by Hybrid Methods
Keystone Meeting
2013 43rd Mid-Atlantic Macromolecular Crystallography Meeting
2013 NIDDK Fellows Retreat
2014 NIH Earl Stadtman Structural Biology Symposium
2014 Signal Transduction Laboratory, NIEHS
2014 Triangle Crystallography Consortium, RTP, NC
2014 LMC/NIEHS Seminar Series
2014 100th Anniversary of Crystallography Symposium, UNC-Charlotte
2015 Symposium on RNA Biology XI: Tool and Target, Duke University
2016 Duke Center for RNA Biology
2016 GISBL/NIEHS Seminar Series
2016 ESCBL/NIEHS Seminar Series
2016 IIDL/NIEHS Seminar Series
2017 North Carolina State University, Toxicology Program

2017 Yale University, Department of Molecular Biophysics and Biochemistry
2018 Dartmouth University, Chemistry Department
2018 UNC Chapel Hill, Department of Biochemistry
2018 Machines on Genes, FASEB Conference
2018 11th International Conference of Ribosome Synthesis
2018 NC Biophysics Symposium
2018 University of Colorado Denver Structural Biology Program
2018 ESCBL/NIEHS Seminar Series
2018 National Cancer Institute, Frederick, MD
2019 American Crystallographic Association Annual Meeting, Cincinnati OH
2019 2nd Annual Meeting on Biomotors Virus Assembly and RNA Technology, Columbus OH
2019 North Carolina State University, Physics Department
2019 Molecular Biology of Life, CIFAR Bi-annual Meeting, Toronto, CA
2019 University of North Carolina at Charlotte, Nanoscale Science Program

TRAINEES

Current Trainees:

2015-Present Monica Pillon, PhD, NIEHS Visiting Post-Doctoral Fellow
2017-Present Cassandra Hayne, PhD, NIEHS IRTA Post-Doctoral Fellow
2018-Present Jacob Gordon, NIEHS IRTA Post-Bac Fellow
2019-Present Zachary Stewart, NIEHS IRTA Post-Bac Fellow
2019-Present Meredith Frazier, NIEHS IRTA Post-Doctoral Fellow

Previous Trainees:

2014-2017 Erin Romes, PhD, NIEHS IRTA Post-Doctoral Fellow
Current Position: Process Development Scientist, Grifols, RTP, NC
2017-2018 Kevin Goslen, NIEHS IRTA Post-Bac Fellow
Current Position: Medical Student, Wake Forest School of Medicine
2015-2019 Yu-Hua Lo, PhD NIEHS Visiting Post-Doctoral Fellow
Current Position: Cryo-EM Specialist St. Jude Children's Research Hospital

Previous Summer Students:

2015-2017 Matthew Petrovich (Undergraduate, Hope College)
Current Position: Graduate Student Biological Sciences, Vanderbilt University
2018 Nicholas Tedrow (Undergraduate, University of Georgia)
2019 Suhas Etigunta (Undergraduate UNC Chapel Hill)
2019 Maira Haque (Undergraduate NCSU, Scholars Connect Student)

TRAINEES AWARDS AND DISTINCTIONS

Fellows Award for Research Excellence (FARE) NIH:

2016 Erin Romes, PhD
2017 Yu-Hua Lo, PhD
2017 Monica Pillon, PhD (Selected for FARE Award Talk at NIH Research Festival)
2018 Yu-Hua Lo, PhD

- 2019 Yu-Hua Lo, PhD
- 2019 Monica Pillon, PhD

Intramural Research Paper of the Month, NIEHS Environmental Factor:

- 2016 Romes *et al*, Journal of Biological Chemistry
- 2017 Lo *et al*, Structure
- 2017 Pillon *et al*, PNAS
- 2018 Pillon *et al*, RNA
- 2019 Lo *et al*, Nature Communications
- 2019 Pillon *et al*, NSMB

Intramural Research Paper of the Year, NIEHS Environmental Factor:

- 2017 Pillon *et al*, PNAS
- 2018 Pillon *et al*, RNA
- 2019 Lo *et al*, Nature Communications

Fellows Presentation Awards:

- 2017 NC RNA Society Meeting Best Post-Doc Talk, Monica Pillon, PhD
- 2017 NIEHS Science Day Best Poster Award, Yu-Hua Lo, PhD
- 2017 NIEHS Science Day Best Poster Award, Monica Pillon, PhD
- 2018 NIH PostBac Day Poster Award, Kevin Goslen
- 2018 NIEHS Science Day Best Talk Award, Monica Pillon, PhD
- 2018 STL Rodbell Presentation Award, Monica Pillon, PhD
- 2019 NC RNA Society Meeting Poster Award, Monica Pillon, PhD
- 2019 NIH PostBac Day Poster Award, Jacob Gordon
- 2019 RiboClub 20th Anniversary Meeting, Top Poster Prize, Monica Pillon, PhD
- 2019 NIEHS Science Day Best Poster Award, Yu-Hua Lo, PhD
- 2019 NIEHS Science Day Best Poster Award, Monica Pillon, PhD
- 2019 NIEHS Science Day Best Poster Award, Cassandra Hayne PhD
- 2019 NIEHS Science Day Best Poster Award, Jacob Gordon

Fellows Selected Talks at Regional/National/International Meetings:

- 2017 NC RNA Society Bi-annual Meeting, Monica Pillon, PhD
- 2018 International Meeting on Ribosome Synthesis, Monica Pillon, PhD
- 2019 Nucleic Acids Gordon Research Symposium, Jacob Gordon
- 2019 Nucleic Acids Gordon Research Symposium, Monica Pillon, PhD
- 2019 Nucleic Acids Gordon Research Conference, Monica Pillon, PhD
- 2019 NC RNA Society Bi-annual Meeting, Yu-Hua Lo, PhD
- 2019 ASBMB Special Symposium on the Nucleolus, Jacob Gordon
- 2019 RTP Cryo-EM Symposium, Yu-Hua Lo, PhD

Fellowships:

- 2016 Canadian Institute of Health Research (CIHR) Post-doctoral Fellowship
Recipient: Monica Pillon, PhD
- 2019 NIEHS/NIH K99/R00 Pathway to Independence Fellowship
Recipient: Monica Pillon, PhD

Other Awards:

- 2018 GISBL Leadership Award, Monica Pillon, PhD
- 2018 NIEHS Fellow of the Year, Monica Pillon, PhD