ROBERT E. VAN SCIVER

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CURRI	TMT	POS	ITION
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2013 -**PhD Candidate** (Graduate Research Assistant II) Microbiology and Molecular Cell Biology Eastern Virginia Medical School, Norfolk, VA 23501 Dissertation Advisor: Dr. Amy H. Tang, Professor of Cancer Biology Project 1: The role and evolutionarily conserved function of *Drosophila* Seven-IN-Absentia (SINA) and its human SINA homologs (SIAHs) in *Drosophila* development Project 2: Seven-In-Absentia Homolog 3 (SIAH3) as an endogenous inhibitor of the oncogenic K-RAS pathway in human cancer **EDUCATION** Biomedical Sciences (PhD) 2013 -Eastern Virginia Medical School – In Progress 2001 – 2005 B.S., Chemical Engineering University of Virginia – Conferred May 2005 **HONORS & AWARDS** 2018 American Society for Biochemistry and Molecular Biology (ASBMB) Graduate/Postdoctoral Travel Award 2018 Histochemical Society Trainee Travel Award American Society of Cell Biology Travel Award chosen by the LGBTQ+ Task Force 2017 Commonwealth of Virginia Cancer Research Conference Trainee Award 2017 EVMS Outstanding Philanthropic Student Award 2017 EVMS 29th Annual Research Day Travel Award 2017 **EVMS Biomedical Sciences Program Travel Award** 2017 Genetic Society of America's The Allied Genetics Conference Travel Award 2016 **EVMS Student Affairs Travel Award** 2016 2015 Histochemical Society's Immunohistochemistry and Microscopy Course Travel Award 2015 **EVMS Biomedical Sciences Program Travel Award** 2001 – 2005 H. Kruger Kaprielian Memorial Scholarship 2001 – 2003 Armed Forces Communications and Electronics Association (AFCEA) Scholarship PR(

2013 –	AL AND RESEARCH EXPERIENCE Graduate Research Assistant II (PhD Candidate)	
	Eastern Virginia Medical School · Biomedical Sciences PhD Program	Norfolk, VA
	Dissertation Advisor: Dr. Amy H. Tang, Professor of Cancer Biology	
2009 - 2013	Laboratory and Research Specialist I	
	University of Virginia · Department of Pathology	Charlottesville, VA
	Mentor: Dr. Robin A. Felder, Associate Director of Clinical Chemistry, Professor	or of Pathology
2008 - 2009	Contract Researcher	
	University of Virginia · Department of Chemistry	Charlottesville, VA
	Mentor: Dr. H. Mario Geysen, Alfred Burger Professor, Professor of Chemistry	
2006 - 2008	Research Scientist	

Charlottesville, VA

Ethos Pharmaceuticals (Biopharmaceutical Startup Company)

2005 – 2006 Research Scientist

University of Virginia \cdot Department of Chemistry

Charlottesville, VA

Mentor: Dr. H. Mario Geysen, Alfred Burger Professor, Professor of Chemistry

TEACHING EXPERIENCE

2018	Teaching Assistant, BP703: Cell Communication and Signal	ing for EVMS Graduate Students
	(Course Directors: Drs. Amy Tang and Margaret Morris)	Eastern Virginia Medical School
2016	Teaching Assistant, Medical Microbiology Lab for EVMS M	Iedical Students
	(Course Director: Dr. Julie Kerry)	Eastern Virginia Medical School
2015	Guest Lecturer, Introduction to Research Literature for EVM	AS Graduate Student
	(Course Director: Dr. Margaret Morris)	Eastern Virginia Medical School

INVITED SEMINAR PRESENTATIONS

2017	Inaugural Speaker , Biomedical Sciences Student Seminar Series "SINA Family E3 Ligases in Cellular Development and Growth"	Eastern Virginia Medical School
2015	Invited Speaker, EVMS Deans' Hour "Cornell Notes: The Analog App & Other Tools for Success"	Eastern Virginia Medical School

INTRAMURAL SERVICE

2014 –	Student Ambassador, EVMS Office of Development
2015 - 2017	Student Representative, EVMS Biomedical Sciences Curriculum Committee
2015 - 2017	Student Representative, EVMS Commencement Speaker Committee
2015 - 2016	President, EVMS Biomedical Sciences Student Organization
2015 - 2016	Biomedical Sciences Representative, Student Affairs Committee
2015 - 2016	Biomedical Sciences Class Representative, EVMS Student Government Association
2014 - 2015	Secretary, EVMS Biomedical Sciences Student Organization
2002 - 2005	Volunteer, Proud to Be Out Week, UVA Queer Student Union (QSU)
2004	Minority Leadership Training Workshop, UVA Queer Student Union (QSU)
2002 - 2004	Outreach and Volunteer Coordinator, UVA Queer Student Union (QSU)

EXTRAMURAL SERVICE

2017	Reviewer, AACR Annual Undergraduate Student Caucus and Poster Competition
2016	Biomedical Sciences Representative at Healthcare Career Exploration Day at Booker T Washington (Title I) High School
2015	Completion of The Histochemical Society's Immunohistochemistry & Microscopy short course at the Marine Biological Laboratory, Woods Hole, MA
2015 –	Volunteer, Wine, Women & Fishing Annual Fundraiser for EVMS Cancer Research Center
2014 -	Volunteer, Susan G. Komen Race for the Cure
2014 -	Volunteer, Pancreatic Cancer Action Network's PurpleStride Tidewater
2014	Volunteer, Pancreatic Cancer Action Network's PurpleLight Tidewater
2004	Research Experience for Undergraduates (REU) Summer Program

PEER-REVIEWED PUBLICATIONS

- 1. Pepper IJ, **Van Sciver RE**, Tang, AH. Phylogenetic Analysis of the SINA/SIAH Ubiquitin E3 Ligase Family in Metazoa. *BMC Evol Biol*. 2017 Aug 7;17(1):182. PMID: 28784114 DOI: 10.1186/s12862-017-1024-x
- 2. Jananji S, Risi C, Lindamulage IK, Picard LP, **Van Sciver R**, Laflamme G, Albaghjati A, Hickson GR, Kwok BH, Galkin VE. Multimodal and polymorphic interactions between anillin and actin: Their implications for

- cytokinesis. J Mol Biol. 2017; 429 (5): 715–31. PMID: 28147230 DOI: 10.1016/j.jmb.2017.01.020
- 3. Siewertsz van Reesema LL*, Zheleva V*, Winston JS*, Jansen RJ, O'Connor CF, Isbell AJ, Bian M, Qin R, Bassett PT, Hinson VJ, Dorsch KA, Kirby BW, **Van Sciver RE**, Tang-Tan AM, Harden EA, Chang DZ, Allen CA, Perry RR, Hoefer, RA, Tang AH. SIAH and EGFR, two RAS pathway biomarkers, are prognostic in locally advanced and metastatic breast cancer. *EBioMedicine*. 2016 Aug 14; 11: 183-98. PMID: 27569656 DOI: 10.1016/j.ebiom.2016.08.014
- 4. Harris SP, Belknap B, **Van Sciver RE**, White HD, Galkin VE. C0 and C1 N-terminal Ig domains of myosin binding protein C exert different effects on thin filament activation. *Proc Natl Acad Sci.* 2016 Feb 9;113(6):1558-63. PMID: 26831109 DOI: 10.1073/pnas.1518891113
- Gildea JJ, Seaton JE, Victor KG, Reyes CM, Bigler Wang D, Pettigrew AC, Courtner CE, Shah N, Tran HT, Van Sciver RE, Carlson JM, Felder RA. Exosomal Transfer from Human Renal Proximal Tubule Cells to Distal Tubule and Collecting Duct Cells. *Clin. Biochem.* 2014;47(15):89-94. PMID: <u>24976626</u> DOI: 10.1016/j.clinbiochem.2014.06.018
- 6. Gildea JJ, Shah IT, **Van Sciver RE**, Israel JA, Enzensperger C, McGrath HE, Jose PA, Felder RA. The cooperative roles of the dopamine receptors, D1R and D5R, on the regulation of renal sodium transport. *Kidney Int*. 2014;86(1):118-26. PMID: 24552847 DOI: 10.1038/ki.2014.5
- 7. Gildea JJ, Lahiff DT, **Van Sciver RE**, Weiss RS, Shah N, McGrath HE, Schoeffel CD, Jose PA, Carey RM, Felder RA. A linear relationship between the ex-vivo sodium mediated expression of two sodium regulatory pathways as a surrogate marker of salt sensitivity of blood pressure in exfoliated human renal proximal tubule cells: the virtual renal biopsy. *Clin Chim Acta*. 2013;421:236-42. PMID: <u>23454474</u> DOI: <u>10.1016/j.cca.2013.02.021</u>
- 8. Gildea JJ, Tran HT, **Van Sciver RE**, Bigler Wang D, Carlson JM, Felder RA. A novel role for c-Myc in G protein-coupled receptor kinase 4 (GRK4) transcriptional regulation in human kidney proximal tubule cells. *Hypertension*. 2013;61(5):1021-7. PMID: 23509080 DOI: 10.1161/HYPERTENSIONAHA.111.00321
- 9. Gildea JJ, Wang X, Shah N, Tran H, Spinosa M, **Van Sciver R**, Sasaki M, Yatabe J, Carey RM, Jose PA, Felder RA. Dopamine and Angiotensin type 2 receptors cooperatively inhibit sodium transport in human renal proximal tubule cells. *Hypertension*. 2012;60(2):396-403. PMID: <u>22710646</u> DOI: 10.1161/HYPERTENSIONAHA.112.194175
- 10. Gildea JJ, Kemp BA, Howell NL, **Van Sciver RE**, Carey RM, Felder RA. Inhibition of renal caveolin-1 reduces natriuresis and produces hypertension in sodium-loaded rats. *Am J Physiol Renal Physiol*. 2011;300(4):F914-20. PMID: 21289050 DOI: 10.1152/ajprenal.00380.2010

BOOK CHAPTERS AND REVIEWS

- Van Sciver RE*, Lee MP*, Lee CD, Lafever AC, Svyatova E, Kanda K, Colliver AL, van Reesema LLS, Tang-Tan AM, Zheleva V, Bwayi MN, Bian M, Schmidt RL, Matrisian LM, Petersen GM, Tang AH. A New Strategy to Control and Eradicate "Undruggable" Oncogenic K-RAS-Driven Pancreatic Cancer: Molecular Insights and Core Principles Learned from Developmental and Evolutionary Biology. *Cancers (Basel)*. 2018 May 14; 10(5). pii: E142. PMID: 29757973 DOI:10.3390/cancers10050142.
- 2. Gildea JJ, Van Sciver RE, McGrath HE, Kemp BA, Jose PA, Carey RM, Felder RA. Dopaminergic immunofluorescence studies in kidney tissue. *Methods Mol Biol.* 2017;1527:151-161. PMID: 28116714 DOI: 10.1007/978-1-4939-6625-7_12
- 3. **Van Sciver RE***, Njogu MM*, Isbell AJ, Odanga JJ, Bian M, Svyatova E, Siewertsz van Reesema LL, Zheleva V, Eisner JL, Bruflat JK, Schmidt RL, Tang-Tan AM, Tang AH. Blocking SIAH Proteolysis, an Important K-RAS Vulnerability, to Control and Eradicate K-RAS-Driven Metastatic Cancer. *Conquering RAS: From Biology to Cancer Therapy*. 2017;213-232. DOI: 10.1016/B978-0-12-803505-4.00012-6
- 4. Gildea JJ, McGrath HE, **Van Sciver RE**, Wang DB, Felder RA. Isolation, growth, and characterization of human renal epithelial cells using traditional and 3D methods. *Methods Mol Biol*. 2013;945:329-45. PMID: 23097116 DOI: 10.1007/978-1-62703-125-7_20

NATIONAL CONFERENCE PRESENTATIONS

American Society for Biochemistry & Molecular Biology (ASBMB) and Experimental Biology Annual Meeting, San Diego, CA April 2018 Talk Van Sciver RE, Cao Y, Ahmed AU, Tang AH. "Seven-In-Absentia (SINA) Family E3 Ligases in Development and Growth" in Mechanisms of G Protein Signaling Symposium. Van Sciver RE, Cao Y, Ahmed AU, Tang AH. Seven-In-Absentia (SINA) Family E3 Ligases in Poster Development and Growth. 111th Annual American Association for Cancer Research, Washington DC April 2018 Tang AH, Van Sciver RE, Svyatova E, Kanda K, Lee MP, Lee CD, Siewertsz van Reesema LL, Poster Lafever AC, Collier AL, Iyer AS, Britt LD, Winston JS, Allen CA, Chang DZ, Petersen GM, Hoefer RA. Conquering undruggable oncogenic K-RAS-driven incurable metastatic cancer, and delivering precision medicine at neoadjuvant settings. American Society of Cell Biology (ASCB-EMBO) Annual Meeting, Philadelphia, PA December 2017 Poster Van Sciver RE, Cao Y, Ahmed AU, Tang AH. Loss of function of Seven-In-Absentia (SINA) E3 ligase impedes proper RAS signaling and alters peripheral nervous system (PNS) development in Drosophila. 110th Annual American Association for Cancer Research, Washington DC **April** 2017 Van Sciver RE, Cao Y, Ahmed AU, Tang AH. The "gatekeeper" function of Drosophila Seven-IN-Poster Absentia (SINA) E3 ligase and its human homologs, SIAH1 and SIAH2, is highly conserved for proper RAS signal transduction in *Drosophila* development. The Allied Genetics Conference, Orlando, FL July 2016 Poster Van Sciver RE, Cao Y, Ahmed AU, Tang AH. The "gatekeeper" function of Drosophila Seven-IN-Absentia (SINA) E3 ligase and its human homologs, SIAH1 and SIAH2, is highly conserved for proper RAS signal transduction in Drosophila eye development. 40th Annual Council for High Blood Pressure Research, San Francisco, CA September 2014 Poster Gildea JJ, Bigler Wang D, Van Sciver RE, Felder RA. Loss of Caveolin-1 in Mouse, Rat, and Human Proximal Tubule Cells Increases GRK4 Activity and Decreases D1-Like Receptor Cell Surface Levels. 39th Annual Council for High Blood Pressure Research, New Orleans, LA September 2013 Talk Gildea JJ, Howell NL, Van Sciver RE, Kemp BA, Carey RM, Felder RA. Caveolin-1 Knockout Mice Have Salt-Sensitive Hypertension and Dopamine-1 Receptor Defects in Renal Cortex and Isolated Renal Proximal Tubule Cells. Poster Bigler Wang D, Van Sciver RE, Gildea JJ, Felder RA. Caveolin-1 (CAV1) Levels Determine the Cell Surface Expression of the Dopamine D1-like Receptors. 38th Annual Council for High Blood Pressure Research, Washington DC September 2012 Gildea JJ, Lahiff DT, Keene SA, Van Sciver RE, Carey RM, Schoeffel CD, Felder RA. A Rapid Talk Method for Clinical Diagnosis of Salt Sensitivity of Blood Pressure. Van Sciver RE, Gildea JJ, Bigler Wang D, Felder RA. Caveolin-1 (CAV1) inhibits G Protein Poster Coupled Receptor Kinase Type 4 (GRK4) Kinase Activity. Gildea JJ, Keene SA, Lahiff DT, Van Sciver RE, Schoeffel CD, Carey RM, Felder RA. A Novel Poster Test for Low Salt Sensitivity: Angiotensin type-II Receptor Recruitment After Dopamine-1 Receptor Stimulation in Urine-Derived Renal Proximal Tubule Cells.

37th Annual Council for High Blood Pressure Research, Orlando, FL

Necessary for Dopaminergic Activity in the Proximal Tubule.

Poster

September 2011

Gildea JJ, Shah N, Van Sciver RE, Tran HT, Felder RA. The Dopamine-1 Receptor (D₁R) and Poster

Tran HT, Gildea JJ, Van Sciver RE, Bigler Wang D, Felder RA. c-Myc Inactivation by PP2A is

Angiotensin Type 2 Receptor (AT₂R) Cooperate to Increase Adenylyl Cyclase and Protein Phosphatase 2A (PP2A) Activity in Human Renal Proximal Tubule Cells.

Poster Gildea JJ, **Van Sciver RE**, Tran HT, Bigler Wang D, Felder RA. Dopamine D1 vs D5 Receptor Selective Activation of cAMP and PLC and Relative Contribution to Inhibition of Sodium Influx.

Poster Gildea JJ, Tran HT, Bigler Wang D, **Van Sciver RE**, Felder RA. A Role for Transcription Factor, c-myc, in GRK4 Transcriptional Regulation.

Poster Gildea JJ, Lahiff DT, **Van Sciver RE**, Schoeffel CD, Carey RM, Felder RA. Urine Derived Living Renal Proximal Tubule Cells Differentially Respond to AngII in Patients from a Salt Sensitivity Study.

36th Annual Council for High Blood Pressure Research, Washington DC

October 2010

Talk Gildea JJ, **Van Sciver RE**, McGrath HE, Weiss RS, Shah IT, Shah N, Felder RA. Renal Proximal Tubule Cells Isolated from Human Urine Report the Degree of Salt Sensitivity in Test Subjects.

Poster Van Sciver RE, Gildea JJ, Bigler Wang D, McGrath HE, Felder RA. G Protein Coupled Receptor Kinase Type 4 (GRK4) Variants Play a Role in Dopamine-1 Receptor (D₁R) Desensitization.

Poster Felder RA, Gildea JJ, **Van Sciver RE**, McGrath HE. Human Renal Proximal Tubules Express In Vivo Form and Function in 3D Culture.

REGIONAL CONFERENCE PRESENTATIONS

30th Annual EVMS Research Day, Norfolk, VA

October 2018

Poster **Van Sciver RE**, Cao Y, Ahmed AU, Tang AH. The Critical Role of Seven-In-Absentia (SINA) Family E3 ligases in Developmental, Evolutionary, and Oncogenic K-RAS-Driven Cancer Biology.

EVMS Graduate Student Research Conference, Norfolk, VA

March 2018

Talk Van Sciver RE. Seven-In-Absentia (SINA) Family E3 Ligases in *Drosophila* Development.

29th Annual EVMS Research Day, Norfolk, VA

October 2017

Poster **Van Sciver RE**, Cao Y, Ahmed AU, Tang AH. Loss of function of Seven-In-Absentia (SINA) E3 ligase blocks proper RAS signaling in *Drosophila* PNS development.

* Received a Travel Award for this presentation

Commonwealth of Virginia Cancer Research Conference, Charlottesville, VA

September 2017

Talk **Van Sciver RE**, Cao Y, Ahmed AU, Tang AH. Loss of function of Seven-In-Absentia (SINA) E3 ligase blocks proper RAS signaling in *Drosophila* PNS development.

* Received a Trainee Award for this presentation in the Intracellular Signaling session

EVMS Graduate Student Research Conference, Norfolk, VA

March 2017

Talk Van Sciver RE. Seven-In-Absentia (SINA) Family E3 Ligases in *Drosophila* Development.

18th Annual Tidewater Student Research Poster Session, Newport News, VA

November 2016

Poster **Van Sciver RE**, Cao Y, Ahmed AU, Tang AH. The "gatekeeper" function of Drosophila Seven-IN-Absentia (SINA) E3 ligase and its human homologs, SIAH1 and SIAH2, is highly conserved for proper RAS signal transduction in *Drosophila* eye development.

28th Annual EVMS Research Day, Norfolk, VA

October 2016

Poster **Van Sciver RE**, Cao Y, Ahmed AU, Tang AH. The "gatekeeper" function of Drosophila Seven-IN-Absentia (SINA) E3 ligase and its human homologs, SIAH1 and SIAH2, is highly conserved for proper RAS signal transduction in *Drosophila* eye development.

EVMS Graduate Student Research Conference, Norfolk, VA

March 2016

Talk **Van Sciver RE**. Functional analysis of Seven-IN-Absentia (SINA) E3 ligase in Drosophila photoreceptor cell fate determination.

27th Annual EVMS Research Day, Norfolk, VA

October 2015

Poster Van Sciver RE, Cao Y, Ahmed AU, Tang AH. Functional analysis of Seven-IN-Absentia (SINA)

E3 ligase in *Drosophila* photoreceptor cell fate determination.

EVMS Graduate Student Research Conference, Norfolk, VA

March 2015

Talk Van Sciver RE. Regulated proteolysis by seven-in-absentia (SINA) E3 ligase in Drosophila.

NeuroConnections 2014, Norfolk, VA

October 2014

Poster Van Sciver RE, Rushing JG, Tang AH. Loss of Function of Seven-IN-Absentia (SINA) Negatively Affects Drosophila Melanogaster Photoreceptor Development.

26th Annual EVMS Research Day, Norfolk, VA

October 2014

Poster Van Sciver RE, Rushing JG, Tang AH. Loss of Function of Seven-IN-Absentia (SINA) Negatively Affects Drosophila Melanogaster Photoreceptor Development.

PROFESSIONAL MEMBERSHIPS

2017 –	American Society for Biochemistry and Molecular Biology (ASBMB) · Graduate Student Member
2017 –	American Society for Cell Biology (ASCB) · Graduate Student Member
2017 –	National Postdoctoral Association · Individual Graduate Student Member
2016 –	AAAS/Science Program for Excellence in Science · Sponsored Member
2016 –	Genetics Society of America · Graduate Student Member
2014 –	American Association for Cancer Research (AACR) · Associate Member
2014 -	The Histochemical Society (HCS) · Student Member

LINKS TO SCIENTIFIC PROFILES

A full list of my publications can be found at PubMed's MyBibliography at the following URL: https://www.ncbi.nlm.nih.gov/sites/myncbi/robert.van%20sciver.1/collections/51573944/public/

Alternatively, a complete list of publications and presentations can be found at the following URL: https://www.ncbi.nlm.nih.gov/sites/myncbi/robert.van sciver.1/bibliography/46308348/public/

SciENcv Biosketch: https://www.ncbi.nlm.nih.gov/myncbi/robert.van sciver.1/cv/163341/

Research Gate: https://www.researchgate.net/profile/Robert_Van_Sciver

Google Scholar: https://scholar.google.com/citations?user=rUzbBecAAAAJ&hl=en

ORCiD: https://orcid.org/0000-0002-1818-2661

LinkedIn: https://www.linkedin.com/in/robby-vansciver/

REFERENCES

Dr. Amy H. Tang - PhD Dissertation Advisor

Professor of Cancer Biology

Department of Microbiology & Molecular Cell Biology

Eastern Virginia Medical School

651 Colley Ave, Room 423

Norfolk, VA 23501

757-446-5664; TangAH@evms.edu

Dr. Robin A. Felder – Research Advisor (2009-2013)

Professor and Associate Director of Laboratory Medicine

Department of Pathology University of Virginia

450 Ray C Hunt Dr

Charlottesville, VA 22908

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Dr. Aurora Esquela Kerscher – PhD Dissertation Committee Member

Associate Professor

Department of Microbiology & Molecular Cell Biology Eastern Virginia Medical School

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Norfolk, VA 23507

757-446-7191; KerschAE@evms.edu

Dr. Stephen I. Deutsch – PhD Dissertation Committee Member

Anne Armistead Robinson Endowed Chair in Psychiatry Professor and Chairman, Department of Psychiatry and Behavioral Sciences Eastern Virginia Medical School 825 Fairfax Ave, Suite 710 Norfolk, VA 23507 757-446-5888; <u>DeutscSI@evms.edu</u>

Dr. Jerry L. Nadler – PhD Dissertation Committee Momber

Professor and the Harry H. Mansbach Endowed Chair in Internal Medicine and Vice Dean of Research Eastern Virginia Medical School 825 Fairfax Avenue, Suite 410 Norfolk, VA 23507 757-446-8910; NadlerJL@evms.edu