

# NICOLE A. VANDER SCHAAF

Van Andel Research Institute  
333 Bostwick Ave NE  
Grand Rapids, MI 49503  
Nicole.VanderSchaaf@vai.org  
| 616-234-5458 |

## EDUCATION

**Van Andel Institute Graduate School**, Grand Rapids, MI  
August 2014 – Present  
Expected Degree: Ph.D. in Cellular & Molecular Genetics  
*Current Status: Ph.D. Candidate*  
*Cumulative GPA: 3.95*

**Indiana Wesleyan University**, Marion, IN  
September 2011 – December 2013  
Degree Earned: Biology, B.S. (*summa cum laude*)

**Glen Oaks Community College**, Centreville, MI  
August 2009 – May 2011

## RESEARCH & TEACHING EXPERIENCE

**Graduate Student** **Aug 2014 – Present**  
*Van Andel Research Institute, Laboratory of Cancer Epigenetics*  
Utilize *in vitro* and *in vivo* models to elucidate the role of DNA methylation in the initiation and maintenance of intestinal cancer.

**Adjunct Faculty** **Aug 2017 – Dec 2017**  
*Grand Valley State University, Department of Biology*  
Instruct a General Biology lab for science majors (BIO120).

**Assistant Research Technician** **May 2014 – Aug 2014**  
*Van Andel Research Institute, Lab of Transcriptional Regulation*  
Optimize a novel model of HSV-1 disease research.

**Biology Laboratory Support Adjunct Faculty** **Jan 2014 – May 2014**  
*Indiana Wesleyan University, Department of Biology*  
Supervise and assist student lab workers; revise lab manuals; substitute for other faculty as needed.

**Teaching Assistant** **Sept 2012 – Dec 2013**  
*Indiana Wesleyan University, Department of Biology*  
Set up and maintain the Microbiology, Molecular Biology, Genetics, and Crops & Society labs during their respective semesters; assist with experiments, interact with students, and grade papers.

**Research Assistant**

May 2012 – Dec 2013

*Indiana Wesleyan University, Department of Biology  
Hodson Summer Research Institute*

Perform biochemical tests, microscopy, subculturing, phylogenetic analyses, etc. on Antarctic bacteria; present research via publication, posters, and oral presentations.

## BIBLIOGRAPHY

***Origins of Cancer: Tackling Provocative Questions***

Solitto, A. R.<sup>1</sup> & Vander Schaaf, N. A.<sup>1\*</sup> (2017) *Genes & Cancer*, 8(7-8), 608–612.  
doi:10.18632/genesandcancer.150.

<sup>1</sup>Co-first authors; \*Corresponding author

***The Chlorobiaceae, Chloroflexaceae, and Heliobacteriaceae***

Madigan, M.T., Vander Schaaf, N.A., and Sattley, W.M. (2017) In: "Modern Topics in the Phototrophic Prokaryotes: Environmental and Applied Aspects" (Hallenbeck, P.C., ed.), 139-161, Springer, Berlin.

***Cold-Active, Heterotrophic Bacteria from the Highly Oligotrophic Waters of Lake Vanda, Antarctica***

Vander Schaaf, N.A., Cunningham, A.M.G., Cluff, B.P., Kraemer, C.K., Reeves, C.L., Riester, C.J., Slater, L.K., Madigan, M.T., and Sattley, W.M. (2015) *Microorganisms*, 3, 391–406.

## POSTER &amp; ORAL PRESENTATIONS

***The Effect of Dnmt1 Overexpression on Intestinal Tumorigenesis***

Vander Schaaf, N.A., Park, J, Dina, O, Lee, K, Laird, P.W.

Poster Presentation, AACR Annual Meeting 2018, Chicago, Illinois, April 2018

***The Role of DNA Methylation in Intestinal Tumorigenesis***

Vander Schaaf, N.A., Jansen, Z.J., Hinoue, T, Lee, K, Laird, P.W.

Oral Presentation, West Michigan Regional Undergraduate Science Research Conference, VARI, November 2017

***The Effect of Dnmt1 Overexpression on Intestinal Tumorigenesis***

Vander Schaaf, N.A., Park, J, Dina, O, Lee, K, Laird, P.W.

Poster Presentation, FASEB Meeting: Gastrointestinal Tract XVII, Steamboat Springs, Colorado, August 2017

***Modeling the Colon Cancer Epigenome in 3D Organoid Cultures***

Oral Presentation, Science Forum Series, Indiana Wesleyan University, March 2017

***The Role of Polycomb Target Gene DNA Methylation in Intestinal Tumorigenesis***

Vander Schaaf, N.A., Hinoue, T, Lee, K, Laird, P.W.

Poster Presentation, Epigenetics & Chromatin Meeting, Cold Spring Harbor Laboratories, September 2016

Poster Presentation, Epigenomics at VARI Short Course, VARI, July 2016

Poster Presentation, Graduate Student Association (GSA) Retreat, VARI, July 2016

Poster Presentation, VARI Scientific Retreat, Crystal Mountain Resort, June 2016

Poster Presentation, Midwest Chromatin & Epigenetics Meeting, VARI, June 2016  
 Poster Presentation, 24th Annual Short Course on Experimental Models of Human Cancer,  
 Jackson Laboratories, August 2015  
 Poster Presentation, Graduate Student Association (GSA) Retreat, VARI, July 2015  
 Poster Presentation, VARI Scientific Retreat, Crystal Mountain Resort, June 2015

***Cultivation and Description of Fourteen Strains of Cold-Active, Chemoorganotrophic Bacteria from Antarctica***

Vander Schaaf, N.A. and Sattley, W.M.  
 Oral & Poster Presentations, 3<sup>rd</sup> Annual Hodson Colloquium, Indiana Wesleyan University,  
 October 2013

***Characterization of Six Strains of Heterotrophic Bacteria from Lake Vanda, Antarctica***

Vander Schaaf, N.A. and Sattley, W.M.  
 Poster Presentation, Celebration of Scholarship, Indiana Wesleyan University, April 2013

***Characterization of 14 Strains of Antarctic Bacteria***

Cunningham, A.M.G., Vander Schaaf, N.A., and Sattley, W.M.  
 Poster Presentation, 2<sup>nd</sup> Annual Hodson Colloquium, Indiana Wesleyan University, October 2012

HONORS & AWARDS

**Ruth L. Kirschstein F31 Predoctoral Research Service Grant Award**      **July 2017 – June 2020**

*The Role of Polycomb Target Gene DNA Methylation in Intestinal Tumorigenesis*

National Institutes of Health / National Cancer Institute, 1F31CA213897-01A1

Total award amount: \$129,132.00

**FASEB Poster Presentation & Conference Travel Awards**      **August 2017**

Current Biology of the Gastrointestinal Tract Meeting XVII, Steamboat Springs, CO

**CSHL Conference Travel Award**      **September 2016**

Epigenetics & Chromatin Meeting, Cold Spring Harbor Laboratories

**VARI Scientific Retreat Poster Award**      **June 2016**

*Van Andel Research Institute*

**GSA Retreat Poster Presentation Award**      **July 2015**

*Van Andel Institute Graduate School*

**Best VARI Scientific Retreat Poster Presentation**      **June 2015**

*Van Andel Research Institute*

**Best Celebration of Scholarship Poster Presentation**      **April 2013**

*Indiana Wesleyan University*

**Rittenhouse Music, Math, and Science Scholarship**      **Fall 2012 – Spring 2013**

*Indiana Wesleyan University*

**Moorepark Community Church Scholarship**      **Fall 2012 – Spring 2013**

*Indiana Wesleyan University*

<b>Hodson Summer Undergraduate Research Fellowship</b> <i>Indiana Wesleyan University</i>	<b>Summers 2012 &amp; 2013</b>
<b>President's Academic Scholarship</b> <i>Indiana Wesleyan University</i>	<b>Fall 2011 – Fall 2013</b>
<b>Academic Dean's List</b> <i>Indiana Wesleyan University</i>	<b>Fall 2011 – Spring 2013</b>
<b>Three Rivers Mount Hermon Lodge Scholarship</b> <i>Indiana Wesleyan University</i>	<b>Fall 2011 – Spring 2012</b>
<b>High School Valedictorian Scholarship</b> <i>Indiana Wesleyan University</i>	<b>Fall 2011 – Spring 2012</b>
<b>President's Honor Roll</b> <i>Glen Oaks Community College</i>	<b>Fall 2009 – Spring 2011</b>

## SERVICE &amp; LEADERSHIP

<b>VAIGS Curriculum Committee</b> <i>Van Andel Institute Graduate School</i>	<b>Sept 2017 – Present</b>
<b>Graduate Student Association Leadership Committee</b> <i>Van Andel Institute Graduate School</i>	<b>Jan 2017 – Present</b>
<b>Epigenomics at VARI Short-Course Organizing Committee</b> <i>Van Andel Research Institute</i>	<b>Spring 2016 – Present</b>
<b>Mentorship</b> <i>Van Andel Institute Graduate School</i> Students mentored in the Laird lab: Menusha Arumugam ('17), Maggie Chasse ('17), Zachary Jansen ('16, '17), Mark Cunningham ('16), and Michael DeMeester ('15) Students mentored in other labs: Schyler Bennett ('17), Courtney Wernette ('17), Alexis Weber ('16-'17), Rachel House ('16), Candace King ('15-'16), and Devon Jeltema ('15)	<b>May 2015 – Dec 2017</b>
<b>2017 Origins of Cancer Symposium Organizing Committee</b> <i>Van Andel Research Institute</i>	<b>Fall 2016 – Summer 2017</b>
<b>Science "Engager" for K-12 Students</b> <i>Van Andel Education Institute</i> <i>Grand Rapids Adventist Academy</i>	<b>Fall 2015 – Spring 2017</b>

## PROFESSIONAL MEMBERSHIPS

<b>AACR &amp; AACR-WICR (Women in Cancer Research)</b>	<b>Dec 2017 – Present</b>
--	---------------------------

**Cancer Epigenetics Society**

**July 2017 – Present**

**AAAS/Science Program for Excellence in Science**

**July 2015 – Present**