

**KOENRAAD VAN DOORSLAER, PH.D.**

---

**Assistant Professor**  
School of Animal and Comparative Biomedical Sciences  
College of Agriculture and Life Sciences  
BIO5 Institute  
University of Arizona

**Research interests: DNA tumor viruses, viral ecology, viral evolution, and viral oncogenesis**

#### **CHRONOLOGY of EDUCATION**

- 2005-2010    **Albert Einstein College of Medicine**  
Bronx, NY  
**Ph.D., Biomedical Sciences, January 2011**  
Dissertation: The evolution of papillomavirus carcinogenicity.  
Thesis Advisor: Dr. Robert D. Burk  
Major Fields: Virology, Molecular & Cellular Biology, Evolution, Epidemiology
- 2002-2004    **University of Leuven**  
Leuven, Belgium  
Dissertation: Genetic characterization of the *Procyon lotor* papillomavirus type 1  
Thesis Advisor: Dr. Marc Van Ranst  
Graduated Magna cum Laude  
**M.S., Biomedical sciences, June 2004**
- 2000-2002    **University of Leuven**  
Leuven, Belgium  
**B.S., Biomedical sciences, June 2002**

#### **CHRONOLOGY of EMPLOYMENT**

- 2017-present**        **University of Arizona**  
Tucson, Arizona  
**Member**, Arizona Cancer Center  
**Assistant Professor**, Cancer Biology Graduate Interdisciplinary Program  
**Assistant Professor**, Genetics Graduate Interdisciplinary Program  
**Assistant Professor**, Department of Immunobiology
- 2016-present**        **University of Arizona**  
Tucson, Arizona  
**Assistant Professor**, School of Animal and Comparative Biomedical Sciences  
**Assistant Professor**, BIO5 Institute
- 2016-2016        **National Institute of Allergy and Infectious diseases**  
Bethesda, MD  
**Research fellow**, Lab of Viral diseases  
Mentor: Dr. Alison A. McBride
- 2011-2015        **National Institute of Allergy and Infectious diseases**

Bethesda, MD  
**Postdoctoral Fellow**, Lab of Viral diseases  
Mentor: Dr. Alison A. McBride

## HONORS and AWARDS

2017 Award for best oral presentation at 2017 DNA tumor virus meeting  
2014 ASM Conference on Viral Manipulation of Nuclear Processes Travel Award  
2010 Albert Einstein College of Medicine Student Service Award  
2009 International Papillomavirus Society Travel Award  
2007 International Papillomavirus Society Travel Award  
2006 International Papillomavirus Society Travel Award  
2005 Fellow of the Belgian American Educational Foundation (BAEF)

## PROFESSIONAL SERVICE

### International service

2018-present **Director** animal papillomavirus reference center  
2017-present **Chair** of the International Committee for the Nomenclature of Viruses (ICTV) papillomavirus study group  
2017 **Organizing committee**, DNA tumor virus meeting, Birmingham  
2017-present **Review Editor** in Frontiers in Cellular and Infection Microbiology  
2016 **Organizer** Second Annual David J. Heslin Symposium  
2015 **Organizer** First Annual David J. Heslin Symposium  
2011-2017 **Member** of the International Committee for the Nomenclature of Viruses (ICTV) papillomavirus study group

### College of Agriculture and Life Sciences Committees

2018-present ACBS Director Search Committee.

### Departmental Committees

2017-present ACBS Inclusive Excellence Committee  
2017-present ACBS IT Advisory Committee

### Other service appointments

1. Faculty Mentor, MARC program (Maximizing Access to Research Careers)
2. Faculty Mentor, KEYS program (Keep Engaging Youth in Science)
3. Science Advisor to JTED Bioscience

## PUBLICATIONS and CREATIVE ACTIVITY

### Refereed Journal Articles (h-index = 22)

\*Corresponding Author

1. **Diverse papillomaviruses identified in Weddell seals.** Smeele ZE, Burns JM, **Van Doorslaer K**, Fontenele RS, Waits K, Stainton D, Shero MR, Beltran RS, Kirkham AL, Bergartt R, Kraberger S, Varsani A. J Gen Virol. 2018 Feb 22. doi: 10.1099/jgv.0.001028. PMID: 29469687
2. **Roles of APOBEC3A and APOBEC3B in Human Papillomavirus Infection and Disease Progression.** Warren CJ, Westrich JA, **Van Doorslaer K**, Pyeon D. **Viruses**. 2017 Aug 21;9(8). pii: E233. doi: 10.3390/v9080233. PMID 28825669

3. **Persistence of an Oncogenic Papillomavirus Genome Requires cis Elements from the Viral Transcriptional Enhancer.** Van Doorslaer K, Chen D, Chapman S, Khan J, McBride AA. **Mbio**. 2017 Nov 21;8(6). pii: e01758-17. doi: 10.1128/mBio.01758-17 PMID 29162712
4. **Unique genome organization of non-mammalian papillomaviruses provides insights into the evolution of viral early proteins.** Van Doorslaer K\*, Ruoppolo V, Schmidt A, Lescroël A, Jongsomjit D, Elrod M, Kraberger S, Stainton D, Dugger KM, Ballard G, Ainley DG, Varsani A. **Virus Evol**. 2017 Oct 6;3(2):vex027. doi: 10.1093/ve/vex027. eCollection 2017 Jul. PMID 29026649
5. **The Papillomavirus Episteme: a major update to the papillomavirus sequence database.** Van Doorslaer K, Li Z, Xirasagar S, Maes P, Kaminsky D, Liou D, Sun Q, Kaur R, Huyen Y, McBride AA. **Nucleic Acids Res**. 2017 Jan 4;45(D1):D499-D506. doi: 10.1093/nar/gkw879. Epub 2016 Oct 5. PMID 28053164
6. **Novel recombinant papillomavirus genomes expressing selectable genes.** Van Doorslaer K, Porter S, McKinney C, Stepp WH, and McBride AA. **Sci Rep**. 2016 Nov 28;6:37782. doi: 10.1038/srep37782. PMID 27892937
7. **Detection and genotyping of Alpha Human Papillomaviruses from archival formalin fixed tissue samples.** Van Doorslaer K, Chen Z, and McBride AA. **Curr Protoc Microbiol**. 2016 Nov 18;43:14B.9.1-14B.9.20. doi: 10.1002/cpmc.16. PMID 27858973
8. **The Papillomavirus Episteme: a major update to the papillomavirus sequence database.** Van Doorslaer K, Li Z, Xirasagar S, Maes P, Kaminsky D, Liou D, Sun Q, Kaur R, Huyen Y, McBride AA. **Nucl. Acids Res**. 2016. doi: 10.1093/nar/gkw879.
9. **Molecular archeological evidence in support of the repeated loss of a papillomavirus gene.** Van Doorslaer K\* and McBride AA. **Sci Rep**. 2016 Sep 8;6:33028. doi: 10.1038/srep33028. PMID 27604338
10. **The Ancient Evolutionary History of Polyomaviruses.** Buck CB, Van Doorslaer K, Peretti A, An P, Katz JP, Pipas JM, McBride AA, Camus A, McDermott A, Delwart E, Ng T, Farkas K, Austin C, Kraberger S, Davison W, Pastrana DV, and Varsani A. **PLoS Pathog**. 2016 Apr 19;12(4):e1005574. doi: 10.1371/journal.ppat.1005574. eCollection 2016 Apr. PMID 27093155
11. **Papillomavirus Evolution Driven by the Host Restriction Factor APOBEC3 and DNA Methylation.** Van Doorslaer K, Warren C, and Pyeon D. **Virus Evol** (2015) 1 (1):vev015
12. **UbSRD: The Ubiquitin Structural Relational Database.** Harrison JS, Jacobs TM, Houlihan K, Van Doorslaer K and Kuhlman B. **J Mol Biol**. 2015 Sep 18. pii: S0022-2836(15)00522-7. doi: 10.1016/j.jmb.2015.09.011. PMID 26392143.
13. **Degradation of Human PDZ-Proteins by Human Alphapapillomaviruses Represents an Evolutionary Adaptation to a Novel Cellular Niche.** Van Doorslaer K, DeSalle R, Einstein MH, Burk RD. **PLoS Pathog**. 2015 Jun 18;11(6):e1004980. doi: 10.1371/journal.ppat.1004980. eCollection 2015 Jun. PMID:26086730
14. **A Proteomic approach to discover and compare interacting partners of Papillomavirus E2 proteins from diverse phylogenetic groups.** Jang MK, Anderson DE, Van Doorslaer K, McBride AA. **Proteomics**. 2015 Mar 11. doi: 10.1002/pmic.201400613. PMID: 25758368
15. **Evolution of the *Papillomaviridae*.\*** Van Doorslaer K. **Virology**. 2013 Oct;445(1-2):11-20. doi: 10.1016/j.virol.2013.05.012. Epub 2013 Jun 14. PMID: 23769415
16. **Condylomatous genital lesions in cynomolgus macaques from Mauritius.** Harari A, Wood CE, Van Doorslaer K, Chen Z, Domaingue MC, Elmore D, Koenig P, Wagner JD, Jennings RN, Burk RD. **Toxicol Pathol**. 2013 Aug;41(6):893-901. doi:

- 10.1177/0192623312467521. Epub 2012 Dec 21. PMID: 23262641
17. **The Papillomavirus Episteme: a central resource for papillomavirus sequence data and analysis.** Van Doorslaer K, Tan Q, Xirasagar S, Bandaru S, Gopalan V, Mohamoud Y, Huyen Y, McBride AA. **Nucleic Acids Res.** 2013 Jan;41(Database issue):D571-8. doi: 10.1093/nar/gks984. Epub 2012 Oct 23. PMID: 23093593
  18. **Association between hTERT activation by HPV E6 proteins and oncogenic risk.** Van Doorslaer K, Burk RD. **Virology.** 2012 Nov 10;433(1):216-9. doi: 10.1016/j.virol.2012.08.006. Epub 2012 Aug 25. PMID: 22925336
  19. **Sequence imputation of HPV16 genomes for genetic association studies.** Smith B, Chen Z, Reimers L, Van Doorslaer K, Schiffman M, Desalle R, Herrero R, Yu K, Wacholder S, Wang T, Burk RD. **PLoS One.** 2011;6(6):e21375. doi: 10.1371/journal.pone.0021375. Epub 2011 Jun 23. PMID: 21731721
  20. **Papillomaviruses: evolution, Linnaean taxonomy and current nomenclature.** Van Doorslaer K, Bernard HU, Chen Z, de Villiers EM, zur Hausen H, Burk RD. **Trends Microbiol.** 2011 Feb;19(2):49-50; author reply 50-1. doi: 10.1016/j.tim.2010.11.004. Epub 2010 Dec 7. PMID: 21144754
  21. **Evolution of human papillomavirus carcinogenicity.** Van Doorslaer K, Burk RD. **Adv Virus Res.** 2010;77:41-62. doi: 10.1016/B978-0-12-385034-8.00002-8. Review. PMID: 20951869
  22. **Degradation of p53 by human Alphapapillomavirus E6 proteins shows a stronger correlation with phylogeny than oncogenicity.** Fu L, Van Doorslaer K, Chen Z, Ristriani T, Masson M, Travé G, Burk RD. **PLoS One.** 2010 Sep 17;5(9). doi:pil: e12816. 10.1371/journal.pone.0012816. PMID: 20862247
  23. **Overexpression of miR-21 promotes an in vitro metastatic phenotype by targeting the tumor suppressor RhoB.** Connolly EC, Van Doorslaer K, Rogler LE, Rogler CE. **Mol Cancer Res.** 2010 May;8(5):691-700. doi: 10.1158/1541-7786.MCR-09-0465. Epub 2010 May 11. PMID: 20460403
  24. **Classification of papillomaviruses (PVs) based on 189 PV types and proposal of taxonomic amendments.** Bernard HU, Burk RD, Chen Z, Van Doorslaer K, zur Hausen H, de Villiers EM. **Virology.** 2010 May 25;401(1):70-9. doi: 10.1016/j.virol.2010.02.002. Epub 2010 Mar 5. PMID: 20206957
  25. **Lack of heterogeneity of HPV16 E7 sequence compared with HPV31 and HPV73 may be related to its unique carcinogenic properties.** Safaeian M, Van Doorslaer K, Schiffman M, Chen Z, Rodriguez AC, Herrero R, Hildesheim A, Burk RD. **Arch Virol.** 2010 Mar;155(3):367-70. doi: 10.1007/s00705-009-0579-2. Epub 2010 Jan 6. PMID: 20049619
  26. **Genomic diversity and interspecies host infection of alpha12 Macaca fascicularis papillomaviruses (MfPVs).** Chen Z, Van Doorslaer K, DeSalle R, Wood CE, Kaplan JR, Wagner JD, Burk RD. **Virology.** 2009 Oct 25;393(2):304-10. doi: 10.1016/j.virol.2009.07.012. Epub 2009 Aug 28. PMID: 19716580
  27. **Human papillomaviruses: genetic basis of carcinogenicity.** Burk RD, Chen Z, Van Doorslaer K. **Public Health Genomics.** 2009;12(5-6):281-90. doi: 10.1159/000214919. Epub 2009 Aug 11. Review. PMID: 19684441
  28. **Serological response to an HPV16 E7 based therapeutic vaccine in women with high-grade cervical dysplasia.** Van Doorslaer K\*, Reimers LL, Studentsov YY, Einstein MH, Burk RD. **Gynecol Oncol.** 2010 Feb;116(2):208-12. doi: 10.1016/j.ygyno.2009.05.044. Epub 2009 Jun 24. PMID: 19555999
  29. **Identification of unusual E6 and E7 proteins within avian papillomaviruses: cellular**

- localization, biophysical characterization, and phylogenetic analysis.** Van Doorslaer K, Sidi AO, Zanier K, Rybin V, Deryckère F, Rector A, Burk RD, Lienau EK, van Ranst M, Travé G. **J Virol.** 2009 Sep;83(17):8759-70. doi: 10.1128/JVI.01777-08. Epub 2009 Jun 24. PMID: 19553340
30. **Macaca fascicularis papillomavirus type 1: a non-human primate betapapillomavirus causing rapidly progressive hand and foot papillomatosis.** Joh J, Hopper K, Van Doorslaer K, Sundberg JP, Jenson AB, Ghim SJ. **J Gen Virol.** 2009 Apr;90(Pt 4):987-94. doi: 10.1099/vir.0.006544-0. Epub 2009 Mar 4. PMID: 19264664
  31. **A single amino acid substitution in a segment of the CA protein within Gag that has similarity to human immunodeficiency virus type 1 blocks infectivity of a human endogenous retrovirus K provirus in the human genome.** Heslin DJ, Murcia P, Arnaud F, Van Doorslaer K, Palmarini M, Lenz J. **J Virol.** 2009 Jan;83(2):1105-14. doi: 10.1128/JVI.01439-08. Epub 2008 Nov 12. PMID: 19004950
  32. **Genomic characterization of two novel reptilian papillomaviruses, Chelonia mydas papillomavirus 1 and Caretta caretta papillomavirus 1.** Herbst LH, Lenz J, Van Doorslaer K, Chen Z, Stacy BA, Wellehan JF Jr, Manire CA, Burk RD. **Virology.** 2009 Jan 5;383(1):131-5. doi: 10.1016/j.virol.2008.09.022. Epub 2008 Oct 29. PMID: 18973915
  33. **Genomic characterization of novel dolphin papillomaviruses provides indications for recombination within the Papillomaviridae.** Rector A, Stevens H, Lacave G, Lemey P, Mostmans S, Salbany A, Vos M, Van Doorslaer K, Ghim SJ, Rehtanz M, Bossart GD, Jenson AB, Van Ranst M. **Virology.** 2008 Aug 15;378(1):151-61. doi: 10.1016/j.virol.2008.05.020. Epub 2008 Jun 24. PMID: 18579177
  34. **Ancient papillomavirus-host co-speciation in Felidae.** Rector A, Lemey P, Tachezy R, Mostmans S, Ghim SJ, Van Doorslaer K, Roelke M, Bush M, Montali RJ, Joslin J, Burk RD, Jenson AB, Sundberg JP, Shapiro B, Van Ranst M. **Genome Biol.** 2007;8(4):R57. PMID: 17430578
  35. **Complete genomic characterization of a murine papillomavirus isolated from papillomatous lesions of a European harvest mouse (Micromys minutus).** Van Doorslaer K, Rector A, Jenson AB, Sundberg JP, Van Ranst M, Ghim SJ. **J Gen Virol.** 2007 May;88(Pt 5):1484-8. PMID: 17412977
  36. **Genetic characterization of the first chiropteran papillomavirus, isolated from a basosquamous carcinoma in an Egyptian fruit bat: the Rousettus aegyptiacus papillomavirus type 1.** Rector A, Mostmans S, Van Doorslaer K, McKnight CA, Maes RK, Wise AG, Kiupel M, Van Ranst M. **Vet Microbiol.** 2006 Oct 31;117(2-4):267-75. Epub 2006 Jul 18. PMID: 16854536
  37. **Genetic characterization of the Capra hircus papillomavirus: a novel close-to-root artiodactyl papillomavirus.** Van Doorslaer K, Rector A, Vos P, Van Ranst M. **Virus Res.** 2006 Jun;118(1-2):164-9. Epub 2006 Jan 23. PMID: 16430985
  38. **Isolation and cloning of the raccoon (Procyon lotor) papillomavirus type 1 by using degenerate papillomavirus-specific primers.** Rector A, Van Doorslaer K, Bertelsen M, Barker IK, Olberg RA, Lemey P, Sundberg JP, Van Ranst M. **J Gen Virol.** 2005 Jul;86(Pt 7):2029-33. PMID: 15958682
  39. **Isolation and cloning of a papillomavirus from a North American porcupine by using multiply primed rolling-circle amplification: the Erethizon dorsatum papillomavirus type 1.** Rector A, Tachezy R, Van Doorslaer K, MacNamara T, Burk RD, Sundberg JP, Van Ranst M. **Virology.** 2005 Jan 20;331(2):449-56. PMID: 15629787

### Scholarly Book Chapters

1. **Recent developments in the interactions between caveolin and pathogens.** Machado FS, Rodriguez NE, Adesse D, Garzoni LR, Esper L, Lisanti MP, Burk RD, Albanese C, **Van Doorslaer K**, Weiss LM, Nagajyothi F, Nosanchuk JD, Wilson ME, Tanowitz HB., 2010. *In Caveolins and caveolae: Role in signaling and Disease mechanisms* . Edited by Jasmin JF, Frank PG and Lisanti MP. Landes Bioscience. Pubmed PMID: 22411314
2. **Replication and Maintenance of Viral Genomes by Association with Host Chromatin .** **Van Doorslaer K**, Sekhar V, Khan J, McBride AA., 2012. *In Small DNA Viruses*. Edited by Kevin L. Gaston. Horizon Press

### **General public publications**

1. **PaVE: The Papillomavirus Episteme.** McBride AA and **Van Doorslaer, K**. HPV today (number 26)

### **Electronic Publications**

#### *Websites*

1. **The Papillomavirus Episteme (PaVE)**  
<https://pave.niaid.nih.gov/>

#### *Computer Code/scripts*

1. GitHub Repository  
<https://github.com/Van-Doorslaer>

## **SCHOLARLY PRESENTATIONS**

### **Selected Talks at International/National Conferences**

- |          |   |
|----------|---|
| Jul 2017 | DNA tumor virus meeting<br>Birmingham, UK<br>Genomic plasticity near the root of the papillomavirus evolutionary tree                                   |
| Jul 2016 | DNA tumor virus meeting<br>Montreal, Canada<br>Molecular archeological evidence in support of the repeated loss of a papillomavirus gene                |
| Jul 2016 | DNA tumor virus meeting<br>Montreal, Canada<br>Viral transcriptional enhancer is required for optimal persistence of an oncogenic papillomavirus genome |
| Jul 2015 | DNA tumor virus meeting<br>Trieste, Italy<br>Fish papillomaviruses!   |
| Jul 2015 | DNA tumor virus meeting<br>Trieste, Italy<br>Viral transcriptional enhancer is required for optimal persistence of an oncogenic papillomavirus genome   |
| Sep 2015 | 30 <sup>th</sup> International Papillomavirus conference (invited plenary seminar)<br>Lisbon, Portugal<br>PaVE: The Papillomavirus Episteme             |

- Aug 2014 29<sup>th</sup> International Papillomavirus conference  
Seattle, WA, USA  
Degradation of Human PDZ-Proteins by Human Alphapapillomaviruses  
Represents an Evolutionary Adaptation to a Novel Cellular Niche.
- Jul 2014 DNA tumor virus meeting  
Madison, USA  
Viral transcriptional enhancer is required for optimal persistence of  
an oncogenic papillomavirus genome
- Aug 2013 Octet User Meeting  
Bethesda, MD, USA  
The Papillomavirus E2 protein; Evolutionary analysis of DNA binding  
functions
- Jul 2013 DNA tumor virus meeting  
Birmingham, UK  
Viral transcriptional enhancer is required for optimal persistence of  
an oncogenic papillomavirus genome
- Jul 2012 DNA tumor virus meeting  
Montreal, Canada  
Viral transcriptional enhancer is required for optimal persistence of  
an oncogenic papillomavirus genome
- Nov 2012 28<sup>th</sup> International Papillomavirus conference (invited plenary seminar)  
San Juan, Puerto Rico  
PaVE: The Papillomavirus Episteme
- Jul 2011 DNA tumor virus meeting  
Trieste, Italy  
Conservation of a tri-peptide implicated in tethering of viral genomes  
to host chromosomes
- Jul 2010 26<sup>th</sup> International Papillomavirus conference  
Montreal, Canada  
Association between hTERT activation by E6 proteins and oncogenic risk
- May 2009 25<sup>th</sup> International Papillomavirus Conference  
Malmo, Sweden  
Macaca fascicularis papillomaviruses (MfPVs).
- Nov 2007 24<sup>th</sup> International Papillomavirus Conference  
Beijing, China  
Identification of unusual E6 and E7 proteins within avian  
papillomaviruses: cellular localization, biophysical characterization, and  
phylogenetic analysis.
- Sep 2006 23<sup>rd</sup> International Papillomavirus Conference  
Prague, Czech Republic  
Genetic characterization of the Capra hircus papillomavirus:  
a novel close-to-root artiodactyl papillomavirus.
- Apr 2005 22<sup>nd</sup> International Papillomavirus Conference  
Vancouver, Canada  
Isolation and cloning of the raccoon papillomavirus type 1 by using  
degenerate papillomavirus-specific primers.

**Invited Seminars from Outside Institutions**

- Apr 2017      *Anchor Talk* at 56<sup>th</sup> Annual meeting of the Arizona/Southern Nevada ASM Branch  
Tucson, AZ  
*Comparative Genomics as a Tool to Understand Papillomavirus Evolution and Disease*
- Mar 2017      CIDD seminar  
Penn State University  
Hershey, PA, USA  
*Comparative Genomics as a Tool to Understand Papillomavirus Evolution and Disease*
- Mar 2017      Frontiers in Immunobiology & Immunopathogenesis Symposium 2017  
Dept. of Immunobiology, University of Arizona  
*Use of comparative virology to understand papillomavirus oncogenicity*
- Oct 2016      Inaugural CME collaborative seminar  
Arizona State University, Phoenix, AZ, USA  
*Comparative Genomics as a Tool to Understand Papillomavirus Evolution and Disease*
- Mar 2016      University of Arizona, Tucson, AZ, USA  
*Comparative Genomics as a Tool to Understand Papillomavirus Evolution and Disease*
- Sep 2015      University of Western Ontario  
London, Ontario, Canada  
*Viral Transcriptional Enhancer is Required for the Optimal Persistence of a Papillomavirus genome*
- Jul 2014      National Institutes of Health  
Comparative Biomedical Science Day symposium  
*Papillomavirus diversity and evolutionary history*  
Bethesda, MD, USA
- Jan 2009      Ecole Supérieure de Biotechnologies de Strasbourg  
Strasbourg, France  
*Evolution of the Papillomavirus E6 oncoprotein*

#### **Invited Seminars at the University of Arizona**

- Apr 2017      MicroLunch, Cross Campus Microbiology Focus Group, UA  
*Papillomaviruses as tools to study evolution*
- Mar 2017      UA Microbiology Club meeting  
*Papillomaviruses; replication and cancer*
- Nov 2016      Head and Neck Cancer collaborative seminar  
University of Arizona Cancer Center  
*In vitro* tools to study the papillomavirus lifecycle
- Nov 2016      AZCC, Cancer Biology Program Seminar  
*Comparative Genomics as a Tool to Understand Papillomavirus Evolution and Disease*
- Oct 2016      MicroLunch, Cross Campus Microbiology Focus Group, UA  
*Comparative Genomics as a Tool to Understand Papillomavirus Evolution and Disease*

#### **Symposia and Colloquia**



- Mar 2017            MARC Biomedical Research Colloquium  
                         Tucson, AZ, USA  
                         *Papillomaviruses, replication and cancer*
- Aug 2008            Microbial Evolution & Genomics NYC Area Symposium  
                         New York, NY, USA  
                         *Unusual features of the avian papillomavirus early proteins*

## FUNDING

1. American Cancer Society (ACS IRG award)            **2018-present**  
*Principal Investigator*  
"Dissecting the role of anatomical tissue origin on HPV induced cancer"
2. CALS early career Seed Grant            **2017-2018**  
*Principal Investigator*  
"Optimizing in vitro papillomavirus infection for molecular studies"
3. UA Research, Discovery & Innovation (RDI) Faculty Seed Grant    **2017-2018**  
*Principal Investigator*  
"Determine the role of recombination in Papillomavirus evolution"

## EVALUATION of TEACHING and ADVISING

### Extent of Teaching

#### *Courses*

- Spring 2017            MIC433/MIC533 Medical and Molecular Virology  
                         *Primary Instructor*
- Spring 2017            MCB565 Principles and Molecular Mechanisms of Microbe-Host  
                         Interactions  
                         *Guest Lecturer*

### Individual Student Contact/Mentoring

- Advisor, Undergraduate First year Honors project*  
2017            Kayleigh Berthiaume  
                         Thesis Title: *Analysis of host-parasite coevolution*
- Advisor, Minority access to research (MARC) fellow*  
2017-            Jayme Jackson  
*Undergraduate individual research Advisor*  
2017            Melissa H. Ayres  
2017            Josh Pace  
2017            Emma Paunil  
                         Recipient of a Spirit of Inquiry research Grant
- Advisor, Keep Engaging Youth in Science (KEYS) fellow*  
2017            Gabrielle Russell (Vail High School)

### Thesis Committee

#### *Comprehensive examination*

- 2017            Aaron P. Roznowski (Genetics GIDP)

## LIST of COLLABORATORS

**Samuel K. Campos, PhD**, University of Arizona, Department of Medicine, Tucson, AZ, USA

**Steven J. Wang, MD, FACS**, University of Arizona, Department of Medicine, Tucson, AZ, USA

**Arvind Varsani, PhD**, Arizona State University, The Biodesign Institute and School of Life Sciences, Tempe, AZ, USA

**Joseph S. Harison, PhD**, Lineberger Comprehensive Cancer Center, University of North Carolina Medical School, Chapel Hill, NC, USA

**Piet Maes**, PhD, Rega Institute, University of Leuven, Leuven, Belgium