

BJÖRN F.C. KAFSACK, PHD, MHS

Microbiology and Immunology

EDUCATION & TRAINING

University of Washington, Seattle, WA

1997-2001	B.S. with distinction in Microbiology, Minor in Chemistry
1997-2001	B.S. with distinction in Biochemistry, Minor in Medical History & Ethics
1997-2001	B.A. with distinction in Philosophy

Johns Hopkins University, Baltimore, MD

2002-2009	Ph.D. in Molecular Microbiology & Immunology
	Thesis: Molecular Determinants of Toxoplasma Invasion and Egress
2003-2006	Masters of Health Sciences in Bioinformatics
	Capstone: Mathematical Modeling of Toxoplasma Invasion

Princeton University, Princeton, NJ

2009-2012 *Post-doctoral Fellow*, Llinás Lab, Lewis-Sigler Institute for Integrative Genomics, Project: *Regulation of Sexual Differentiation in Malaria Parasites*

Additional Training & Certifications

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2014	Learning Bioconductor for Sequence Analysis Course, Seattle, WA
2004	Certificate in Vaccine Science & Policy, Johns Hopkins School of Public Health
2004	Biology of Parasitism Course, Marine Biological Laboratory, Woods Hole, MA
2002	Field Course in Disease Ecology and Behavior, Sevilleta NWR, NM

POSITIONS

2015-Present	Assistant Professor, Department of Microbiology and Immunology, Weill Cornell Medicine, New York, NY
2013-2015	Staff Scientist, Division of Basic Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA

HONORS & AWARDS

2021	Weill Cornell Graduate School Faculty Diversity Award
2010-2012	Damon Runyon Cancer Research Foundation Postdoctoral Fellowship
2012	PLoS Pathogens Talk Award, Molecular Parasitology Meeting
2011	Outstanding Poster Prize, BioMalPar Meeting
2008	ASTMH Molecular, Cellular, and Immunoparasitology Scientific Award
2008	Outstanding Oral Presentation, Molecular Parasitology Meeting
2005-2007	American Heart Association Predoctoral Fellowship
2005	Fredrick B. Bang Award for Student Research in Pathobiology
2004	Biology of Parasitism, Marine Biological Laboratory Scholarship
2004	Francis A. Coventry Fellowship in Molecular Microbiology and Immunology
2003	Otis & Calista Causey Fellowship in Immunology
2000	University of Washington Mary Gates Scholar
1998	University of Washington Mary Gates Scholar

SERVICE & MEMBERSHIPS

Editorial and Review Activities

Editorial Roles

- 2022 PLOS Pathogens, *Academic Editor* (ad hoc)
- 2021- ASM Microbiology Spectrum, *Editor* (Editorial board member)
- 2019- PLOS Pathogens, *Reviews Editor* (Editorial board member)
- 2019,20 PLOS Pathogens, Academic Editor (ad hoc)
- 2019-21 Frontiers in Cellular & Infection Microbiology, Associate Editor
- 2018-19 Frontiers in Cellular & Infection Microbiology, Review Editor

Grant Review

- 2022 UK Medical Research Council
- 2021 Swiss National Science Foundation, Wellcome Trust
- 2020 Swiss National Science Foundation, Israel Science Foundation
- 2019 France L'Agence Nationale de la Recherche, UK Biotechnology & Biological Sciences Research Council
- 2018 Netherlands Organization for Scientific Research

Manuscript Review

- 2022 Nature, mSphere
- 2021 PNAS, PLOS Pathogens, Trends in Parasitology,
- 2020 BioEssays, PLOS Pathogens, Nature Communications Biology, Molecular Microbiology, mSphere, Frontiers in Cellular & Infection Microbiology
- 2019 Nature, Nature Microbiology, PNAS, Scientific Reports,
- Frontiers in Cellular & Infection Microbiology
- 2018 Nature Communications, WellcomeOpenResearch, PLoS ONE, mSphere
- 2017 Cell, Cell Host & Microbe, Trends in Parasitology, mSphere
- 2016 J. Exp. Medicine, PLoS ONE, mSphere, Genome Research
- 2015 Infection Genetics and Evolution, Malaria Journal

Teaching

- 2018 Lecturer, Fundamentals of Immunology & Microbiology, Weill Cornell Medicine
- 2017 Course Co-Director, Parasitology Focus Group, Weill Cornell Medicine
- 2017 Lecturer, Single Cell Biology for Parasitologists, ASTMH Meeting, Baltimore
- 2017 Lecturer, Single Cell Analysis Course, University of Michigan, Ann Arbor
- 2016- *Instructor*, Parasitology Plate Rounds, Weill Cornell Medicine
- 2016 Instructor, Microbiology Lab Instructor, Weill Cornell Medicine
- 2015 *Graduate Advisor,* Weill Cornell BCMB Graduate Program

Other Service

- 2020-22 Founding Co-chair, WCM Social Justice and Anti-Racism Taskforce
- 2021 Outside Promotions Evaluator, Texas Biomedical Research Institute
- 2021 Outside Thesis Examiner, University of Oxford, UK
- 2019 Session Chair, BioMalPar XV Meeting, EMBL, Heidelberg, Germany
- 2018 Co-Organizer, Young Investigators in Parasitology Meeting
- 2017- Member, Weill Cornell BCBM Admissions Committee
- 2016 Lead Organizer/Founder, Young Investigators in Parasitology Meeting
- 2016 Session Chair, Molecular Parasitology Meeting XXVI, Woods Hole, MA

Professional Memberships

Member, American Society for Microbiology Member, American Society for Biochemistry and Molecular Biology

PUBLICATIONS

^e authors contributed equally, [#] pre-print or pending peer review

[#]Nötzel C, **Kafsack BFC**. *PfD123 modulates K13-mediated survival and recovery after artemisinin exposure*. <u>BioRXiv</u>. 2022 Jan 28.

[#] Harris CT, Tong X, Campelo R, Vanheer LN, Marreiros IM, Nahiyann N, Zuarte-Luis VA, Deitsch KW, Mota MM, Rhee KY, **Kafsack BFC**. *Metabolic competition between phospho-choline synthesis and histone methylation regulates sexual commitment in Plasmodium falciparum*. <u>BioRXiv</u>. 2022 Jan 18.

Campelo R, Tong X, Xie W, Able S, Orchard LM, Daher W, Patel DJ, Llinás M, Le Roch KG, **Kafsack BFC**. *The essential transcriptional regulator HDP1 controls expansion of the inner membrane complex during early sexual differentiation of malaria parasites*. <u>Nature Microbiology</u>, 2022. https://doi.org/10.1038/s41564-021-01045-0

Nötzel C, **Kafsack BFC**. There and back again: malaria parasite single-cell transcriptomics comes full circle. <u>Trends in Parasitology</u> 2021 Aug 11; S1471-4922(21)00176-8

Vanheer N, **Kafsack BFC**. Activity comparison of epigenetic modulators against the hemoprotozoan parasites Babesia divergens and Plasmodium falciparum, <u>ACS Infectious Disease</u>, 2021 Feb 18, PMID: 33599488

Reed J, Kirkman LA, **Kafsack BFC**, Mason C, Deitsch KW. *Telomere length dynamics in response to DNA damage in malaria parasites*. <u>iScience</u>, 2021 Feb 18, (24) 102082

Neveu G, Beri D, **Kafsack BFC.** *Metabolic regulation of sexual commitment in malaria parasites*. <u>Current</u> <u>Opinions in Microbiology</u> 2020 Dec, 58:93-98, PMID: 33053503

Vanheer LN, Zhao H, Gan, L, **Kafsack BFC**. Activity of epigenetic inhibitors against Plasmodium falciparum asexual and sexual blood stages. <u>Antimicrobial Agents & Chemotherapy</u>. 2020 Jun 23;64(7):e02523-19, PMID: 32366713

Matthews KA, Senagbe KM, Nötzel C, Gonzalez CA, Tong X, Rijo-Ferreira F, Natarajan BV, Miguel-Blanco C, Lafuente-Monasterio MJ, Garcia BA, **Kafsack BF**, Martinez ED. *Disruption of the Plasmodium falciparum life cycle through transcriptional reprogramming by inhibitors of Jumonji demethylases*. <u>ACS Infectious Disease</u>. 2020 Apr 9. PMID: 32272012

McLean KJ, Straimer J, Hopp CS, Vega-Rodriguez J, Tripathi A, Mlambo G, Doumolin PC, Harris CT, Tong X, Shears MJ, Ankarklev J, **Kafsack BFC**, Fidock DA, Sinnis P. *Generation of Transgenic Human Malaria Parasites with Strong Fluorescence in the Transmission Stages*. <u>Scientific Reports</u>. 2019 Sep 11;9(1):13131. PMID: 31511546

Zhan W, Visone J, Ouellette T, Harris JC, Wang R, Zhang H, Singh PK, Ginn J, Sukenick GD, Wong TT, Okoro JI, Scales RM, Tumwebaze PT, Rosenthal PJ, **Kafsack BFC**, Cooper R, Meinke PT, Kirkman LA, Lin G. *Improvement of asparagine ethylenediamines as anti-malarial Plasmodium-selective proteasome inhibitors*. Journal of Medicinal Chemistry. 2019 Jun 9. PMID: 3117777

Bancells C, Llorà-Batlle O, Poran P, Nötzel N, Rovira-Graells N, Elemento O, **Kafsack BFC**, Cortés A. *Revisiting the initial steps of sexual development in the malaria parasite Plasmodium falciparum*. <u>Nature</u> <u>Microbiology</u>. 2019 Jan;4(1):144-154. PMID: 30478286

Kirkman L, Zhan W, Visone V, Dziedziech A, Fan H, Singh PK, Tong X, Bruzual I, Hara R, Kawasaki M, Sato K, Michino M, Aso K, Fernandez Alvaro E, Wang R, Ling Y, Guiang LF, Sanz L, Mota D, Kavitha G, Tumwebaze PK, Sukenick G, Shi L, Vendome J, Bhanot P, Rosenthal PJ, Cooper R, **Kafsack BFC**, Doggett JS, Nathan C, Lin G. *Antimalarial proteasome inhibitor reveals collateral sensitivity from intersubunit interactions and fitness cost of resistance*. <u>PNAS</u> 2018 Jul 17;115(29), PMID: 29967165

Nötzel C, Poran A, **Kafsack BFC**. *Single-cell transcriptome profiling of protozoan and metazoan parasites.* <u>Trends in Parasitology</u> 2018 May 25, PMID: 29807759

Poran A, Nötzel C, Aly O, Mencia-Trinchant N, Harris CT, Guzman ML, Hassane DC, Elemento O, **Kafsack BFC**. *Single-cell RNA-seq reveals a signature of sexual commitment in malaria parasites*. <u>Nature</u> 2017; 551(7678):95-99. PMID: 29094698

Coleman B, Skillman K, Jiang R, Childs L, Altenhofen L, Ganter M, Leung Y, Goldowitz I, **Kafsack B,** Marti M, Llinas M, Buckee C, Duraisingh M. *A Plasmodium falciparum histone deacetylase regulates antigenic variation and gametocyte conversion*. <u>Cell Host & Microbe</u> 2014; 16(2):177-86. PMID: 25121747

Kafsack BFC, Rovira-Graells N, Clark TG, Christina Bancells, Crowley VM, Campino SG, Williams AE, Drought LG, Kwiatkowski DP, Baker DA, Cortés A, Llinás M. *A transcriptional switch controls commitment to sexual development in malaria parasites*. <u>Nature</u> 2014;507(7491):248-52. PMID: 24572369

Sinha A, Hughes KR, Modrzynska KK, Otto TD, Pfander C, Dickens NK, Religa AA, Bushell E, Graham AL, Cameron R, **Kafsack, BFC**, Williams A, Llinás M, Berriman M, Billker O, Waters AP. *A cascade of DNA binding proteins for sexual commitment and development in Plasmodium*. <u>Nature</u> 2014 507(7491) pp. 253-7. PMID: 24572359

Carter LM, **Kafsack BFC**, Llinás M, Mideo N, Pollitt LC, Reece SE. *Stress and sex in Malaria Parasites: Why does commitment vary*? <u>Evolution, Medicine, and Public Health.</u> 2013 (1):135-47. PMID: 24481194

Painter HJ, Altenhofen LM, **Kafsack BF**, Llinás M. *Whole-Genome analysis of Plasmodium spp. utilizing a new Agilent Technologies DNA microarray platform*. <u>Methods in Molecular Biology</u> 2013; 923:213-9. PMID: 22990780

Kafsack BFC[®] Painter HJ[®], Llinás M. New Agilent platform DNA microarrays for transcriptome analysis of P. falciparum and P. berghei for the malaria research community. <u>Malaria Journal</u> 2012 11:187. PMID: 22681930

Kafsack BFC, Llinás M. Eating at the table of another: Metabolomics of host/parasite interactions. Cell Host & Microbe 2010 Feb 7(2):90-99. PMID: 20159614

Kafsack BFC, Carruthers VB. *Apicomplexan MACPF proteins*, <u>Communicative & Integrative Biology</u>. 2010 Jan/Feb: 3(1):68-73 PMID: 20539776

Lagal V, Binder EM, Huynh MH, **Kafsack BFC**, Harris PK, Diez R, Chen D, Cole RN, Carruthers VB, Kim K. *Toxoplasma gondii protease TgSUB1 is required for cell surface processing of micronemal adhesive complexes and efficient attachment of tachyzoites to host cells*. <u>Cellular Microbiology</u> 2010 (12):1792-180 PMID: 20678172

Kafsack BFC, Pena J, Coppens I, Ravindran S, Boothroyd JC, Carruthers VB. *Rapid membrane disruption by a perforin-like protein facilitates parasite exit from host cells*. <u>Science</u> 2009 Vol. 323, No. 5913, pp. 530-533. PMID: 20159614

Kafsack BFC, Carruthers VB, Pineda FJ. *Kinetic modeling of Toxoplasma invasion*. <u>Journal of Theoretical</u> <u>Biology</u> 2007 Dec, 249(4):817-25 PMID: 17942124

Zhou XW[®], **Kafsack BFC[®]**, Cole RN, Beckett P, Shen RF, Carruthers VB. The opportunistic pathogen Toxoplasma gondii deploys a diverse legion of invasion and survival proteins. <u>Journal of Biological</u> <u>Chemistry</u> 2005 Oct 7;280(40):34233-44. PMID: 16002397

Kafsack BFC, Beckers CJM, Carruthers VB. Synchronous invasion of host cells by Toxoplasma gondii. <u>Molecular and Biochemical Parasitology</u> 2004 Aug; 136(2):309-311 PMID: 15478810

Harper JM, Zhou XW, Pszenny V, **Kafsack BFC**, Carruthers VB. *The Novel Coccidian Micronemal Protein MIC11 Undergoes Proteolytic Maturation by Sequential Cleavage to Remove an Internal Propeptide*. <u>International Journal of Parasitology</u> 2004 Aug; 34(9):1047-58 PMID: 15313131

Rasoloson D, Shi L, Chong CR, **Kafsack BF**, Sullivan DJ. *Copper pathways in Plasmodium falciparum infected erythrocytes indicate an efflux role for the copper P-ATPase*. <u>Biochemical Journal</u> 2004 Aug 1;381(Pt 3):803-11 PMID: 15125686

Seamons A, Sutton J, Bai D, Baird E, Bonn N, **Kafsack BFC**, Shabanowitz J, Hunt DF, Beeson C, Goverman J. *Competition between two MHC binding registers in a single peptide processed from myelin basic protein influences tolerance and susceptibility to autoimmunity*. <u>Journal of Experimental Medicine</u> 2003 May 19;197(10):1391-7. PMID: 12756272

دور المحلفة المحل

RESEARCH SUPPORT

Active

R01 Al141965 (Role: PI) Jun 2019 – May 2024 *Regulation of Sexual Differentiation in Malaria Parasites* Annual Direct Costs: \$355,938

R01 Al138499 (Role: Co-Investigator, PI: Kirk Deitsch) Apr 2018 – Mar 2023 *Mechanisms of environmental sensing and responses by malaria parasites* Annual Direct Costs: \$440,031 Total, \$197,533 to Kafsack Lab

Weill Cornell Medicine Tri-I TDI Project Matching Funds (Role: Co-PI with Laura Kirkman) Jul 2021-Jun 2023 Advancing novel antimalarial compounds identified through a new phenotypic in vitro screen that models Plasmodium falciparum growth in humans. Annual direct costs: \$175,235 Total, \$82,775 to Kafsack Lab

Charles A. Frueauff Foundation Equipment Grant (Role: PI) 2021 Support the replacement purchase of a 4-laser/13 color flow cytometer Annual Direct Costs: \$42,000

Startup Funds, Weill Cornell Medicine Research Support (Role: PI) Aug 2015-Present

Pending

NIH GMS S10 OD032386-01 (Role: PI) 2022 Next generation analyzer for multi-parameter live-cell flow cytometry. Annual Direct Costs: \$184,859

NIH NIAID R21 AI166436-01A1 (Role: PI) 2022 Identifying the Target of a Potent and Selective Inhibitor of Babesia Blood Stages. Annual Direct Costs: \$137,500

Completed

DoD PRMRP Discovery Award PR171496 (DoD CDMRP) (Role: PI) Oct 2018 - Dec 2020 Probing Mechanisms of P. falciparum Artemisinin Resistance using Single Cell Transcriptomics Annual Direct Costs: \$133,000

Alice Bohmfalk Charitable Trust Research Grant (Role: PI) Jul 2018 – Jun 2019 *Targeting epigenetic regulation of gene expression during malaria stage transitions* Annual Direct Costs: \$61,250

SCIENTIFIC PRESENTATIONS

Talk **, Richard Carter Memorial Symposium, University of Edinburgh, Sept 8-9, 2022 Seminar *, I2BC Université Paris-Saclay, Genome Biology Department, March 11, 2022 Seminar *, Federal Drug Administration, Division of Bacterial, Parasitic and Allergenic Products, Mar 8, 2022 Talk[#], Cellular Biology of Eukaryotic Pathogens Conference, Clemson SC, Oct 22, 2021 Seminar, Johns Hopkins Malaria Research Institute, Baltimore, USA, May 21, 2021 Lecture *, Marine Biological Laboratory, Biology of Parasitism course, July 28, 2020 **Keynote** ^x, British Society for Parasitology Meeting, Edinburgh, UK, April 2020. Talk, EMBO Symposium: Metabolism Meets Epigenetics, Heidelberg, Germany, Nov 20-23, 2019 Seminar, NIAID, Laboratory of Malaria & Vector Research, Aug 21, 2019 Seminar, Uniformed Services University of Health Sciences, Aug 20, 2019 Talk #. FASEB Microbial Pathogenesis Conference. Snowmass. CO July 21-25. 2019 Seminar, Heidelberg University Hospital, Center for Infection Biology, May 27, 2019 Seminar, Bernard Nocht Institute for Tropical Medicine, Hamburg, Germany, December 20, 2018 Seminar, University of Washington, Department of Biology, December 5, 2018 Seminar, University of Pennsylvania, Department of Pathobiology, April 23, 2018 Talk[#], American Society of Tropical Medicine & Hygiene Meeting, Pre-meeting Course: Single Cell Biology for Parasitologists, Nov 5, 2017 Talk, The Future of Malaria Research Conference. Johns Hopkins University, Nov 3, 2017 Lecture, University of Michigan, Ann Arbor, Single Cell Analysis Course, Oct 31, 2017 Seminar, University of Virginia, Charlottesville, Division of Infect. Disease & Int. Health, Apr 20, 2017 Talk #, NIAID Workshop on Single Cell Technologies for Infectious Diseases, Apr 18-19 2017 Seminar, CUNY Hunter College, Dept. of Biology, Dec 12, 2016 Seminar, Johns Hopkins University, Malaria Research Institute, Jan 9, 2015 Seminar, Weill Cornell Medical College, Dept. of Microbiology & Immunology, Jan 6, 2015 Seminar, Center for Infectious Disease Research, Seattle, WA, Sept 29, 2014 Seminar, Fred Hutchinson Cancer Research Center, Div. of Basic Sciences, WA Oct 18, 2013 Seminar, Institut Pasteur, Dept. of Parasites and Insect Vectors, Dec 10, 2012 Talk, American Society of Tropical Medicine & Hygiene Meeting, Nov 11-15, 2012 Talk, Molecular Parasitology Meeting, Sept 22-26, 2012 Talk, Molecular Parasitology Meeting, Sept 12-16, 2010 Talk, American Society of Tropical Medicine & Hygiene Meeting, Dec 7-11, 2008 Talk, Molecular Parasitology Meeting, Sept 21-25, 2008 Seminar, University of Michigan, Ann Arbor, Dept. of Microbiology & Immunology, May 6, 2008

[#] invited talk * upcoming * Cancelled due to COVID-19 pandemic

MENTORSHIP

Mentorship Activities

- 2016 Founder / Lead Organizer, Young Investigators in Parasitology Meeting
- 2018 Co-Organizer, Young Investigators in Parasitology Meeting
- 2016- Graduate Student Advisor, Weill Cornell BCBM Graduate Program

Current Trainees

<u>Graduate Students</u> Chantal Harris, 2016-present

Post-doctoral Fellows Riward Campelo-Morillo, PhD, 2015-present Kit Kennedy, PhD, 2019-present Gaelle Neveu, PhD, 2020-present

Past Trainees

<u>Post-doctoral/ Research Fellows</u> Leen Vanheer, MD, 2018-2020, *currently Ph.D. student at London School of Hygiene & Tropical Medicine* Divya Beri, PhD 2020-2021, *currently post-doc at New York Blood Center*.

Graduate Students

Asaf Poran (co-mentored, 2015-2018), *currently Group Leader at BioNTech* Christopher Nötzel (2016-2021), *currently post-doc with Boris Striepen at UPenn*.

Undergraduate & Visiting Students

Idri Abdullah (2019 Summer Student) *currently Senior, U. of Maryland* Xinran Tong (Technician 2015-2018), *currently Ph.D. student, Weill Cornell Medicine* Gabrielle Paniccia (2018 Summer Student), *currently Ph.D. student, Rockefeller U.* Nusrat Tabassum (2017-2018 Bronx Science student), *currently Pharmacy student, St. Johns U.* Victor Vazquez Marrero (2017 Summer Student), *currently Ph.D. student, U. of Pennsylvania* Scott Segura (2017 Summer Student), *currently Ph.D. student, U. of Texas, Medical Branch* Randy Coupet (2016 Visiting Medical Student), *currently completing residency in France*

Conference Presentations by Trainees

2021 Oral Presentation by Chantal Harris (Graduate Student) Molecular Parasitology Meeting, Woods Hole, MA, Oct 5-9

> **Oral Presentation** by Christopher Nötzel (Graduate Student) <u>Molecular Parasitology Meeting</u>, Woods Hole, MA, Oct 5-9

Oral Presentation by Leen Vanheer (Research Fellow) 2020 International Babesiosis Meeting, New Haven, CT, April 24-24

- **2018 Oral Presentation** by Riward Campelo, (Post-doctoral Fellow) <u>Molecular Parasitology Meeting</u>, Woods Hole, MA, Sept 09-13
- **2017 Oral Presentation** by Christopher Nötzel, (Graduate Student) <u>American Society of Tropical Medicine & Hygiene Annual Meeting</u>, Baltimore, MD, Nov 5-10

Oral Presentation by Riward Campelo, Ph.D. (Post-doctoral Fellow) <u>NYC-Area Parasitology Symposium</u>, New York, NY, Oct 27

Oral Presentation by Christopher Nötzel, (Graduate Student) <u>Molecular Parasitology Meeting</u>, Woods Hole, MA, Sept 10-14

2016 Oral Presentation by Christopher Nötzel, (Graduate Student) <u>Molecular Parasitology Meeting</u>, Woods Hole, MA, Sept 18-22, 2016

Oral Presentation by Christopher Nötzel, (Graduate Student) <u>NYC-Area Parasitology Symposium</u>, New York, NY Sept 4, 2016

Awards & Fellowships by Trainees

- **2021** Best Talk at the Molecular Parasitology Meeting, Oct 5-9 Trainee: Chantal Harris, Graduate Student
- **2021** Best Talk (Runner Up) at the Molecular Parasitology Meeting, Oct 5-9 Trainee: Christopher Nötzel, Graduate Student
- **2020** Australian American Foundation Scholar Trainee: Kit Kennedy, Postdoctoral Fellow

Best Poster Award, Molecular Parasitology Meeting 2020 Trainee: Jiacheng Liu, Rotation Student

Best Poster Award, Tri-Institutional Chemical Biology Symposium, 2020 Trainee: Jiacheng Liu, Rotation Student

- **2019 2nd Place, New York City Science & Engineering Fair, Category: Microbiology** Trainee: Nusrat Tabassum, 2017-18 Bronx High School of Science Summer Student
- **2018 F31 NRSA NIH Individual Predoctoral Fellowship** Trainee: Chantal Harris, Graduate Student

Jacques Cohenca Predoctoral Fellowship Trainee: Christopher Nötzel, Graduate Student

Belgian American Educational Foundation Fellowship Trainee: Leen Vanheer, Post-doctoral Fellow

Poster Presentation Award at ABRCMS Meeting, Nov 14-17, 2018 Trainee: Gabrielle Paniccia, ACCESS Undergraduate Summer Student

Julian R. Rachele Prize for Best Original Research Paper Trainee: Christopher Nötzel, Graduate Student

- **2017 Best Talk at the Molecular Parasitology Meeting,** Sept 10-14 Trainee: Christopher Nötzel, Graduate Student
- **2016** Best FlashTalk/Poster at the Molecular Parasitology Meeting, Sept 18-22 Trainee: Christopher Nötzel, Graduate Student