

NUTTADA PANPRADIST, PH.D. (SHE)

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I am an experienced researcher and educator with expertise in global health and bioengineering who leverages inclusion and diversity to:

- Develop innovative, high-quality, and sustainable diagnostic technologies
- Train the next generation of global citizens
- Promote health equity through transnational multi-disciplinary collaborations and local capacity building

EDUCATION AND TRAINING

- 2004 – 2007 **Silpakorn University**, Nakhon Pathom, Thailand
Bachelor of Engineering, Petrochemical and Polymeric Materials (4th class rank)
- 2009 – 2010 **Pima Medical Institute**, Washington, USA
Certificate, Pharmacy Technician (1st class rank)
- 2011 – 2013 **Seattle's Hub for Industrial-Driven Nanotechnology Education**,
North Seattle College, Washington, USA
Certificate, Nanotechnology
- 2018 **Stanford University**, California, USA
Predoctoral Fellow
- 2015 – 2021 **Department of Global Health, University of Washington (UW)**,
Washington, USA
Graduate Certificate of Global Health for Women, Adolescents, and Children
- 2015 – 2021 **Department of Bioengineering, UW**, Washington, USA
PhD, Bioengineering
- 2021 – 2023 **Department of Bioengineering, UW**, Washington, USA
Post-doctoral Associate

PROFESSIONAL DEVELOPMENT TRAINING

- 2022 UW CoMotion Researchers and Academic Innovators Success in
Entrepreneurship (RAISE)
- 2022 Global Innovation Exchange courses – Python and Data Science
- 2022 UW Center for AIDS Research Behavior Science Qualitative Workshop Series
- 2022 UW School of Medicine Future Faculty Fellows Workshop Series
- 2022 UW Global Health and TRTC Annual Advanced TB Research Training Course
- 2023 UW School of Medicine Women Faculty Leadership Series
- 2023 McGill University. 3D Printing and Microfluidic Workshop

CURRENT POSITIONS

- 2023 – Present Post-doctoral Associate, Department of Global Health,
University of Washington (main appointment)
- 2022 – Present Research Officer, National Public HIV Reference Laboratory,
Ministry of Health, Kenya (invited, unpaid position)
- 2022 – Present Faculty Lecturer, Associated Medical Science,
Chiang Mai University, Thailand (invited, unpaid position)
- 2023 – Present External Faculty, Master in Forest Biology,
Kasetsart University, Thailand (invited, unpaid position)
- 2023 – Present External Faculty, PhD in Nursing,

2021 – Present Khon Kaen University, Thailand (invited, unpaid position)
Shareholder, Anavasi Diagnostics (a startup that commercializes a molecular detection technology I co-developed during my Ph.D.)

PROFESSIONAL MEMBERSHIPS/SERVICES

2017 – Present **Member**, UW/Fred Hutch Center for AIDS Research
2022 – Present **Member**, UW Institute of Translational Health Science
2022 – Present **Member**, Seattle Tuberculosis Research Advancement Center
2022 – Present **Member**, UW Center for Environmental Forensic Science
2022 – Present **Member**, UW Molecular Systems Information Lab
2022 – Present **Member**, Biomedical Engineering Society
2023 – Present **Member**, Society for Research in Child Development
Accepting the invitation
Academic Editor, PLOS Global Public Health

HONORS, AWARDS, AND SCHOLARSHIPS

2004 Valedictorian, Math-Science Program, Class of 2004, Kasetsart University Laboratory School
2005 Academic Achievement Scholarship, Silpakorn University
2006 Academic Achievement Scholarship, Silpakorn University
2007 Second Class Honors, Bachelor of Engineering, Silpakorn University
2010 Highest Achievement Award, Pharmacy Technician Program, Pima Medical Institute
2013 Merit Scholarship North Seattle College
2015 Outstanding Graduate Student Mentor Award (UW Bioengineering selected one graduate student awardee based on his/her recognition of excellent research mentorship)
2015 HHMI International Student Research Fellowship Nominee (representing UW)
2015 UW Graduate School's Funding for Excellence and Innovation
2016 3rd National competition Prize and Finalist APF Student Technology by Massachusetts General Hospital
2016 UW Undergraduate Research Mentor Award (1 of 7 awardees selected from graduate students and faculty members from tri-campus nominations. This award recognizes excellent mentorship as indicated by the accomplishments of mentees.)
2016 HHMI International Student Research Fellowship Nominee (1 of 10 students representing UW)
2017 Biomedical Engineering Society Early Career Award
2017 Young Scientist Scholarship, 26th International Workshop for HIV Drug Resistance and Treatment Strategies, South Africa
2017 Show-and-Tell Award, 26th International Workshop for HIV Drug Resistance and Treatment Strategies, South Africa
2017 UW Graduate School's Funding for Excellence and Innovation
2018 Graduate School Medal Nominee (representing UW Bioengineering)
2018 UW CoMotion Prototype Fund (team competition)
2018 Best Idea for Global Reach Award and 1 of 16 Finalist, UW Business Plan Competition (team competition)
2018 2nd Prize Hollomon Health Innovation Challenge (team competition)
2018 Husky 100 (a tri-campus student competition, 1 of 100 UW students recognized for making the most of their time at the UW)

- 2018 \$50,000 Bud Tribble and Susan Barnes Graduate Discovery Fellowship
UW School of Medicine funded three graduate students to explore a new area of research that is independent of, but complementary to, their Ph.D. I received a six-month fellowship to conduct research at Stanford University (see training session)
- 2019 UW National Science Foundation I-Corp Program
- 2020 Semi-Finalist, X-Prize Rapid Covid Testing Team Competition
- 2021 UW College of Engineer Graduate Student Research Award (1 of 2 Ph.D. students selected based on excellence in research impact and productivity among students from all 11 engineering departments)
- 2022 Gonfalonier (representing the UW Graduate School to lead the procession of 2022 graduating students from different departments into the UW Stadium during the commencement)
- 2022 UW Bioengineering Commencement Doctoral Speaker
- 2022 Schmidt Science Fellowship Nominee
- 2022 UW Center for Environmental Forensic Science Seed Grant Award
- 2022 New Investigator Award, UW/Fred Hutch Center for AIDS Research
- 2022 New Investigator Award, Seattle Tuberculosis Research Advancement Center
- 2022 UW Population Health Tier II Award (Winter)
- 2022 Early Career Development Award, Thrasher Research Foundation
- 2023 Early Career Catalyst Award, ITHS (Winter)
- 2023 Early Career Catalyst Award, ITHS (Spring)
- 2023 THB Junior Investigator Research Fund, Chiang Mai University, Thailand
- 2023 UW Global Innovation Fund Fellow (UW-Thailand Circle)
- 2023 Promising Point-of-Care Technology Award, based on oral presentation, 30th International Workshop for HIV Drug Resistance and Treatment Strategies, South Africa
- 2024 Innovation and Leadership in Global Health Award from Rice 360 Institute for Global Health Technologies

PUBLICATIONS 27 total; 427 citations, h index = 11, i10 index 12

1. 2014, **Nuttada Panpradist**, Bhushan J Toley, Xiaohong Zhang, Samantha Byrnes, Joshua R Buser, Janet A Englund, Barry R Lutz. "Swab sample transfer for point-of-care diagnostics: characterization of swab types and manual agitation methods" *PLoS One*. PMID: 25181250. DOI: 10.1371/journal.pone.0105786 (IF 3.234)
2. 2016. **Nuttada Panpradist**, James J Lai. "Point-of-care diagnostics" 2016. *Biomaterials Nanoarchitectonics*. 2016. DOI: 10.1016/B978-0-323-37127-8.00009-1
3. 2016. **Nuttada Panpradist**, Ingrid A Beck, Michael H Chung, James N Kiarie, Lisa M Frenkel, Barry R Lutz. "Simplified paper format for detecting HIV drug resistance in clinical specimens by oligonucleotide ligation". *PLoS One*. DOI: 10.1371/journal.pone.0145962 (IF 2.806)
4. 2017, Horacio A Duarte, **Nuttada Panpradist**, Ingrid A Beck, Barry Lutz, James Lai, Ruth M Kanthula, Rami Kantor, Anubhav Tripathi, Shanmugam Saravanan, Iain J MacLeod, Michael H Chung, Guoqing Zhang, Chunfu Yang, Lisa M Frenkel. "Current status of point-of-care testing for human immunodeficiency virus drug resistance" *Journal of Infectious Disease*. PMID: 29040621. DOI: 10.1093/infdis/jix413. (IF 3.623)
5. 2019, **Nuttada Panpradist**, Ingrid A Beck, Justin Vrana, Nikki Higa, David McIntyre, Parker S Ruth, Isaac So, Enos C Kline, Ruth Kanthula, Annie Wong-On-Wing, Jonathan Lim, Daisy Ko, Ross Milne, Theresa Rossouw, Ute D Feucht, Michael Chung, Gonzague Jourdain,

- Nicole Ngo-Giang-Huong, Laddawan Laomanit, Jaime Soria, James Lai, Eric Klavins, Lisa M Frenkel, Barry R Lutz. “OLA-Simple: A software-guided HIV-1 drug resistance test for low-resource laboratories”. *EBiomedicine*. DOI: 10.1016/j.ebiom.2019.11.002 (IF 5.736)
6. 2019, Amy Oreskovic, Norman D Brault, **Nuttada Panpradist**, James J Lai, Barry R Lutz. “Analytical comparison of methods for extraction of short cell-free DNA from urine” 2019. *The Journal of Molecular Diagnostics*. PMID: 31442674. DOI: 10.1016/j.jmoldx.2019.07.002 (IF 5.326)
 7. 2020, Amy Oreskovic, **Nuttada Panpradist**, Diana Marangu, Norman D Brault, James J Lai, David Horne, Barry R Lutz. “Sensitive hybridization capture and detection of urine cell-free DNA for tuberculosis diagnosis” *The Journal of Molecular Diagnostics*. 21(6):1164-1165. (IF 5.326)
 8. 2020, **Nuttada Panpradist***, Ingrid A Beck*, Parker S Ruth, Santiago Avila-Rios, Claudia Garcia-Morales, Maribel Soto-Nava, Daniela Tapia-Trejo, Margarita Matias-Florentino, Hector E Paz-Juarez, Silvia Del Arenal-Sanchez, Gustavo Reyes-Teran, Barry R Lutz, Lisa M Frenkel. “Near point-of-care, point-mutation test to detect drug resistance in HIV-1: A validation study in a Mexican cohort.” * **Authors with equal contributions.** *AIDS*. PMID:32205723 DOI: 10.1097/QAD.0000000000002524 (IF 4.511)
 9. 2020, Sylvia M LaCourse, Daniel Leon, **Nuttada Panpradist**, Barbra Richardson, Elizabeth Maleche-Obimbo, Jerphason Mecha, Daniel Matemo, Jacklyn Escudero, John Kinuthia, Barry Lutz, Grace John-Stewart. “Biomarker assessment of infant adherence to isoniazid prophylaxis in a primary TB infection prevention trial in Kenya.” 2020. *Journal of the International AIDS Society*. July, Volume 23: 29-30. (IF 5.396)
 10. 2021, Amy Oreskovic, **Nuttada Panpradist**, Diana Marangu, M William Ngwane, Zanele P Magcaba, Sindiswa Ngcobo, Zinhle Ngcobo, David J Horne, Douglas PK Wilson, Adrienne E Shapiro, Paul K Drain, Barry R Lutz. “Diagnosing pulmonary tuberculosis using sequence-specific purification of urine cell-free DNA.” *Journal of Clinical Microbiology*. 2021. PMID: 33789959; DOI: 10.1128/JCM.00074-21 (IF 5.897)
 11. 2021, **Nuttada Panpradist**, Robert Atkinson, Michael Roller, Enos Kline, Ian Hull, Qin Wang, Jack Henry Kotnik, Amy K Oreskovic, Crissa Bennett, Daniel Leon, Victoria Lyon, Peter D Han, Lea M Starita, Matthew Thompson, Barry R Lutz. “Covid-19 Harmony: development and evaluation of ready-to-use reagents, hardware, and software package for point-of-care SARS-CoV-2 nucleic acid amplification test” *Science Advances*. (IF 14.14)
 12. 2021, **Nuttada Panpradist**, Qin Wang, Parker S Ruth, Jack H Kotnik, Amy K Oreskovic, Abraham Miller, Samuel WA Stewart, Justin Vrana, Peter D Han, Ingrid A Beck, Lea M Starita, Lisa M Frenkel, Barry R Lutz. “Simpler and faster Covid-19 testing: Strategies to streamline SARS-CoV-2 molecular assays.” *EBiomedicine*. PMID: 33582488. DOI: 10.1016/j.ebiom.2021.103236 (IF 8.143)
 13. 2021, Jason Hoffman, Matthew Hirano, **Nuttada Panpradist**, Josept Breda, Parker Ruth, Yuanyi Xu, Jonathan Lester, Bichlien Nguyen, Luis Ceze, Shwetak N Patel. “Passive sensing SARS-CoV-2 RNA in public transit buses”. 2022. *Science of the Total Environment*. PMID: PMC8741327. DOI: 10.1016/j.scitotenv.2021.152790 (IF 7.963)
 14. 2021, Ian Hull, Enos Kline, Gaurav Gulati, Jack Henry Kotnik, **Nuttada Panpradist**, Kamal Shah, Qin Wang, Lisa M Frenkel, James Lai, Joanne Stekler, Barry Lutz. “Isothermal amplification with a target-mimicking internal control and quantitative lateral flow readout for rapid HIV viral load testing in low-resource settings.” 2021. *Analytical Chemistry*. PMID: 34920665; DOI: 10.1021/acs.analchem.1c03960. (IF 6.986)

15. 2021, Zhiyuan Yao, Fabio Zanini, Sathish Kumar, Marwah Karim, Sirle Saul, Nishank Bhalla, **Nuttada Panpradist**, Avery Muniz, Aarthi Narayanan, Stephen R Quake, Shirir Einav. "The transcriptional landscape of Venezuelan equine encephalitis virus infection" *PLoS Neglected Diseases*, DOI: 10.1371/journal.pntd.0009306 (IF 3.885)
16. 2021, Sylvia M LaCourse, Daniel Leon, **Nuttada Panpradist**, Barbra A Richardson, Elizabeth Maleche-Obimbo, Jerphason Mecha, Daniel Matemo, Jaclyn N Escudero, John Kinuthia, Barry Lutz, Grace John-Stewart. "Urine Biomarker Assessment of Infant Adherence to Isoniazid Prophylaxis" *Pediatric Infectious Disease Journal*. Jan;40(1):e43-e45. DOI: 10.1097/INF.0000000000002936 (IF 2.732)
17. 2021, Jackson J Wallner, Ingrid A Beck, **Nuttada Panpradist**, Santiago Avila-Ríos, Humberto Valenzuela-Ponce, Maribel Soto-Nava, Barry R Lutz, Lisa M Frenkel. "Rapid, Near Point-of-Care Assay for HLA-B*57:01 Genotype Associated with Severe Hypersensitivity to Abacavir". *AIDS Research and Human Retroviruses*. (IF 1.805)
18. 2022, Justin D Vrana*, **Nuttada Panpradist***, Nikki Higa, Daisy Ko, Parker Ruth, Ruth Kanthula, James J Lai, Yaoyu Yang, Samar Rafie Sakr, Bhavna Chohan, Michael H Chung, Lisa M Frenkel, Barry R Lutz, Eric Klavins, Ingrid A Beck. "Implementation of an interactive mobile application to pilot a rapid assay to detect HIV drug resistance mutations in Kenya." * **Authors with equal contributions.** *PLoS Global Public Health*.
19. 2022, Gaurav Gulati*, **Nuttada Panpradist***, Samuel W A Stewart, Amy K Oreskovic, Santiago Avila, Gustavo Reyes-Terán, Peter D Han, Lea M Starita, Ingrid Beck, Lisa M Frenkel, Barry R Lutz, James J Lai. "Inexpensive workflow to enable simultaneous screening for Covid-19 and monitoring HIV viral load" * **Authors with equal contributions.** 2022. *Analyst*. PMID: 35762367 DOI: 10.1039/d2an00405d (IF 4.616)
20. 2022, Gonzague Jourdain, **Nuttada Panpradist** Dying while waiting for a hepatitis B cure? (*Alimentary Pharmacology & Therapeutics*) <https://doi.org/10.1111/apt.17081>
21. 2022, Ross S. Milne, Ingrid A Beck, Molly Levine, Isaac So, Nina Andersen, Wenjie Deng, Thomas R Sibley, **Nuttada Panpradist**, James Kingoo, Catherine Kiptinness, Nelly Yatic, James N Kiarie, Samah R Sakr, Michael H Chung. "Low-frequency pretreatment HIV drug-resistance effects on 2-year outcome of first-line efavirenz-based antiretroviral therapy" *AIDS*. DOI: 10.1097/QAD.0000000000003361 (IF 4.177)
22. 2022, Andrew C Hunt, James Brett Case, Young-Jun Park, Longxing Cao, Kejia Wu, Alexandra C Walls, Zhuoming Liu, John E Bowen, Hsien-Wei Yeh, Shally Saini, Louisa Helms, Yan Ting Zhao, Tien-Ying Hsiang, Tyler N Starr, Inna Goresnik, Lisa Kozodoy, Lauren Carter, Rashmi Ravichandran, Lydia B Green, Wadim L Matochko, Christy A Thomson, Bastain Vögeli, Antje Krüger-Gericke, Laura A VanBlargan, Rita E Chen, Baoling Ying, Adam L Bailey, Natasha M Kafai, Scott Boyken, Ajasja Ljubetič, Natasha Edman, George Ueda, Cameron Chow, Amin Addetia, **Nuttada Panpradist**, Michael Gale, Benjamin S Freedman, Jesse D Bloom, Hannele Ruohola-Baker, Sean PJ Whelan, Lance Stewart, Michael S Diamond, David Veessler, Michael C Jewett, David Baker. "Multi-valent designed proteins protect against SARS-CoV-2 variants of concern." *Science Translational Medicine*. DOI: 10.1126/scitranslmed.abn1252. (IF 17.99)
23. 2022, Enos C Kline, **Nuttada Panpradist**, Ian T Hull, Qin Wang, Amy K Oreskovic, Peter D Han, Lea M Starita, Barry R Lutz. "Multiplex Target-Redundant RT-LAMP for Robust Detection of SARS-CoV-2 Using Fluorescent Universal Displacement Probes" *Microbiology Spectrum*. DOI: <https://doi.org/10.1128/spectrum.01583-21> (IF 9.043)
24. 2022, Ian Hull, Enos Kline, Gaurav Gulati, Jack Henry Kotnik, **Nuttada Panpradist**, Kamal Shah, Qin Wang, Lisa M Frenkel, James Lai, Joanne Stekler, Barry Lutz. "Addition to

Isothermal amplification with a target-mimicking internal control and quantitative lateral flow readout for rapid HIV viral load testing in low-resource settings. *Analytical Chemistry*. DOI:10.1021/acs.analchem.2c01256. (IF 6.986)

25. 2022, Lucy F. Yang, Nataly Kacherovsky, **Nuttada Panpradist**, Stephen J. Salipante, Barry R. Lutz, Suzie H. Pun “Aptamer sandwich lateral flow assay (AptaFlow) for antibody-free SARS-CoV-2 detection” *Analytical Chemistry*. (IF 6.986)
26. 2022, Leonard Kingwara, Nancy Njebungei Bowen, **Nuttada Panpradist**, Peter Lokamar, Vera Onwonga Morangi, Rukia Sarah Madada, Emmanuel Nyakeriga, Christabel Awuor, Jonah Onentia Magare, Sarah Masyuko, Rose Wafula, John Ndemi Kiiru. “Evaluation of operational characteristics and performance of HIV rapid diagnostic tests (RDTs): Systematic review and meta-analysis of the literature from 2012 to 2020”. MedRxiv. doi: <https://doi.org/10.1101/2022.05.11.22274936>
27. 2023, Pojsakorn Danpanichkul, Sorawit Ongsupankul, Pinyada Moolkaew, Ranchana Yamsiri, **Nuttada Panpradist**, “Increased Incidence of Early-Onset Colorectal Cancer in Low Sociodemographic Inflex Countries: Higher Rising Burden in Young Females”. *Cereus*. Doi: 10.7759/cereus.38998 [IF 1.20]
28. 2023, Qin Wang, **Nuttada Panpradist**, Jack Henry Kotnik, Richard C. Willson, Katerina Kourentzi, Zoe L. Chau, Joanne K. Liu, Barry R. Lutz, James J. Lai. “A simple agglutination system for rapid antigen detection from large sample volumes with enhanced sensitivity”. *Analytica Chimica Acta*. Doi: 10.1016/j.aca.2023.341674 [IF 6.911]
29. 2023, Sayamon Hongjaisee, Nang Kham-Kjing, Piyagorn Musikul, Wannaporn Daengkaokhew, Nuntita Kongson, Ratchadakorn Guntala, Nitipoom Jaiyapan, Enos C Kline, **Nuttada Panpradist**, Nicole Ngo-Giang-Huong, Woottichai Khamduang. “A Single-Tube Colorimetric Loop-Mediated Isothermal Amplification for Rapid Detection of SARS-CoV-2 RNA.” *Diagnostics*. Doi: 10.3390/diagnostics13193040 [IF 3.6]
30. 2023, Dickens Otieno Onyango, Marianne A B van der Sande, Courtney M Yuen, Joyce Were, Jerphason Mecha, Lilian N Njagi, **Nuttada Panpradist**, Daniel Matemo, Daniel Leon, Barry Lutz, John Kinuthia, Grace John-Stewart, Sylvia M Lacourse. “Biomarker-confirmed suboptimal adherence to isoniazid preventive therapy among children living with HIV in western Kenya” *AIDS*. Doi: 10.1097/QAD.0000000000003719 [IF = 4.632]

ABSTRACTS & PRESENTATIONS

1. 2012: **N Panpradist**. UW Bioengineering / Global WACH Event - Seed Grant Progress Report “1st-Step Towards Point-of-Care HIV Drug Resistance.” **University of Washington**, Seattle, Washington, USA on 10th June 2012.
2. 2013: **N Panpradist**, I Beck, J Lai, L Frenkel, B Lutz. “Point-of-Treatment HIV Drug Resistance Test,” Biomedical Engineering Society Conference, 2013, Seattle, Washington, USA.
3. 2013: **N Panpradist**. UW Center for AIDS Research’s Annual STD/HIV Research Symposium. “1st Step towards a point-of-care HIV drug resistance test” **South Lake Union**, Washington, USA on 29th October 2013.
4. 2014: **N Panpradist**. UW Bioengineering / Global Health Exposition “OLA-Simple: HIV drug resistance screening” the University of Washington, USA on 26th February 2014.
5. 2014: **N Panpradist**. Achievement Rewards for College Scientist (ARCS) Visit, “Point-of-treatment HIV drug resistance test: re-engineering the oligonucleotide ligation assay (OLA)

- for simplicity and speed” University of Washington, Seattle, Washington, USA on 21st April 2014.
6. 2015: **N Panpradist**, I Beck, J Lai, L Frenkel, B Lutz. “Engineering a Paper-based Microfluidic Device for Genotyping HIV Drug Resistance at Point-of-Treatment.” XXV International Workshop on HIV Drug Resistance. Seattle, 2015, WA.
 7. 2015: **Panpradist**, I Beck, M Chung, J Kiarie, L Frenkel, B Lutz. “Simplified Paper Format for Detecting HIV Drug Resistance in Clinical Specimens by Oligonucleotide Ligation Assay (OLA).” XXV International Workshop on HIV Drug Resistance. Seattle, 2015, WA.
 8. 2015: **N Panpradist**. IRD-PHPT - a non-profit, non-governmental, collaborative program between the Institut de recherche pour le développement and Department of Medical Technology, Faculty of Associated Medical Sciences at Chiang Mai University, Chiang Mai, **Thailand** “Special Talk on Point-of-Care HIV/TB Diagnostics: My Journey from Waitress to Bioengineer” on 14th September 2015.
 9. 2015: **N Panpradist**. Department of Material Sciences, Silpakorn University, Nakhon Pathom, **Thailand** “Special Talk on Point-of-Care HIV/TB Diagnostics: My Journey from Waitress to Bioengineer” on 22nd September 2015.
 10. 2015: **N Panpradist**. MEMS Research Unit, University of Mechanical Engineering, Chulalongkorn University, Bangkok, **Thailand**. “Special Talk on Point-of-Care HIV/TB Diagnostics: My Journey from Waitress to Bioengineer” on 10th September 2015.
 11. 2015: **N Panpradist**. Seattle Area Tuberculosis Diagnostics Symposium - **Mycobacterial Interest Group MIG II, South Lake Union**, Washington, USA. “Point-of-Care Tuberculosis Diagnostics from a Urine Sample.” Co-presented with Dr. Barry Lutz on 20th November 2015.
 12. 2015: **N Panpradist**. UW Bioengineering / Global WACH Event - Seed Grant Progress Report “Point-of-Care Tuberculosis Diagnostics from a Urine Sample.” **University of Washington**, Seattle, Washington, USA on 27th May 2015.
 13. 2016: **N Panpradist**, A Wong-On-Wing, I Beck, J Lai, L Frenkel, B Lutz. “Progress towards Development of a Novel Isothermal Ligation Reaction for HIV Drug Resistance Testing.” XXV International Workshop on HIV Drug Resistance, 2016, Boston, MA.
 14. 2016: **N Panpradist**, N Higa, A Wong-On-Wing, I Andrews, B Atkinson, I Beck, L Frenkel, B Lutz. “Novel Platform for Simple Lab-based Oligonucleotide Ligation Assay for Detection of HIV Drug Resistance in sub-Saharan Africans.” XXV International Workshop on HIV Drug Resistance. Boston, 2016, MA.
 15. 2016: **N Panpradist**. BioEngage Symposium, Department of Bioengineering, **University of Washington**, USA. “Engineered Advances Nucleic Acid Tests for Resource-limited Settings” Co-presented with Dr. Barry Lutz and Amy Oreskovic on 10th December 2016.
 16. 2017: **N Panpradist**. Michael Mayer Lab, University of Fribourg, **Switzerland**. “Development of OLA-Simple Technology Series for Detection of HIV Infection and Resistance in Low Resource Settings” on 26th July 2017.
 17. 2017: **N Panpradist**, D McIntyre, A Wong-On-Wing, A Sriram, I Beck, L Frenkel, B Lutz. “Development of a Near Equipment-free, Self-Contained HIV Drug Resistance Test.” Biomedical Engineering Society Conference, 2017, Phoenix, Arizona, USA.
 18. 2017: **N Panpradist**, I So, I Beck, D McIntyre, N Higa, A Wong-On-Wing, J Lim, D Ko, R Kanthula, T Russouw, UD Feucht, L Frenkel, B Lutz. “Evaluation of Low-Cost OLA Simple 1.0 Lab Kit for Detection of HIV Drug Resistance in Dried Blood Spot Specimens from South African Infants”. XXVI International Workshop on HIV Drug Resistance and Treatment Strategies. 2017. Johannesburg, South Africa.
 19. 2017: **N Panpradist**, D McIntyre, N Higa, I So, D Ko, A Wong-On-Wing, I Andrews, I Beck, L Frenkel, B Lutz. “OLA Simple 1.0: Laboratory Kit for HIV Drug Resistance Testing in Low-Resource Settings”. 12th HIV Transmission Workshop, 2017, Paris, France.

20. 2017: **N Panpradist**. Bioengineering Journal Club, **University of Washington**, USA. “Development of OLA Simple Technology Series for Detection of HIV Infection and Resistance in Low Resource Settings” on 14th May 2017.
21. 2018: **N Panpradist**, IA Beck, J Vrana, N Higa, D McIntyre, P Ruth, I So, E Kline, R Milne, R Kanthula, A Wong-On- Wing, J Lim, D Ko, T Rossouw, U Feucht, M Chung, G Jourdain, N Ngo-Giang-Huong, L Laomanit, J Soria, J Lai, E Klavins, LM Frenkel, BR Lutz. “OLA Simple”: a deployable, software-guided assay for detection of drug resistance in HIV-1 DNA and RNA from multiple patient cohorts”. XXVI International Workshop on HIV Drug Resistance and Treatment Strategies. 2018 Johannesburg, South Africa.
22. 2018: **N Panpradist**. KwaZulu-Natal Research Innovation and Sequencing Platform (KRISP), UKZN, Durban, **South Africa**, “Development of OLA-Simple – HIV drug resistance test” on October 22nd, 2018.
23. 2019: **N Panpradist**. Department of Medicine, University of **Zimbabwe**, “Development of OLA-Simple – HIV drug resistance test” on 24th October 2019.
24. 2019: **N Panpradist**, EC Kline, IA Beck, AK Oreskovic, I Hull, M Purfield, S Avila-Ríos, C García-Morales, G Reyes- Terán, LM Frenkel, BR Lutz. “Rapid semi-quantitative viral load assay and reflex drug resistance test for management of HIV antiretroviral therapy.” 28th International Workshop on HIV Drug Resistance & Treatment Strategies. 2019. Johannesburg, South Africa.
25. 2019: **N Panpradist**, F Zanini, S Quake, S Einav. “Identification of Molecular Biomarkers for Severe Dengue.” 2019 **University of Washington Global WACH End of the Year Event**, Seattle, Washington.
26. 2020: **N Panpradist**. PHPT Thailand, Chiang Mai University, **Thailand**, “Development of tests for HIV drug resistance and diagnosis of other infections” on 2nd March 2020.
27. 2022: C Simonich and **N Panpradist**. “How Researchers Contributed to Battling Global Infectious Diseases: COVID-19, HIV & Others.” 2022 Youth Global Health Conference (Virtual Presentation)
28. 2022: **N Panpradist**. Center for Environmental Forensic Sciences Seminar Series, **University of Washington**, USA “Fish-OLA: Fast and simple methods to source-identify codfish.” on 19th July 2022.
29. 2022: **N Panpradist**. Research Institute for Health Sciences, Chiang Mai University, **Thailand**, “Overcoming barriers in molecular diagnostics in and outside labs” on 8th Sep 2022. (Virtual Presentation)
30. 2022: **N Panpradist**. Faculty of Associated Medical Science, Chiang Mai University, **Thailand**.
31. 2022: **N Panpradist**. CHANGE Seminar Computer Science Engineering Department, **University of Washington**, USA. “Overcoming barriers in diagnostics in and outside labs through local capacity building and cross-disciplined collaborations.” on 29th Nov 2022.
32. “Overcoming barriers in molecular diagnostics in and outside labs through local capacity building and cross-disciplined collaboration” on 15th Dec 2022.
33. 2022: **N Panpradist**. Science and Innovation Park, Chiang Mai University, **Thailand**, “Pathway for sustainable molecular diagnostics in Thailand through a partnership with the University of Washington” on 15th Dec 2022.
34. 2022: **N Panpradist**. Faculty of Nursing, Chiang Mai University, **Thailand**, “Overcoming barriers in molecular diagnostics in and outside labs through local capacity building and cross-disciplined collaboration” on 16th Dec 2022.

35. 2022: **N Panpradist**. Faculty of Forest Biology, Department of Forestry, Kasetsart University, **Thailand**, “Development and evaluation of low-cost and easy-to-use single nucleotide polymorphism detection methods: applications in healthcare and forensic science” on 20th Dec 2022.
36. 2022: **N Panpradist**. Bangkok Governor International Affairs Team, Bangkok Metropolitan Administration City Hall, **Thailand**, “*Overcoming barriers in molecular diagnostics in and outside labs through local capacity building and cross-disciplined collaboration*” on 23rd Dec 2022.
37. 2023: **N Panpradist**, 1st Barbados THINK Symposium. St. James. Barbados. “*Overcoming barriers in molecular diagnostics in and outside labs through local capacity building and transnational, cross-disciplined collaboration*” on 6th Feb 2023.
38. 2023: **N Panpradist**. Global Surgery, Department of Global Health, **University of Utah, USA**. “*Overcoming barriers in molecular diagnostics in and outside labs through local capacity building and transnational, cross-disciplined collaboration*” on 28th March 2023.
39. 2023: **N Panpradist**, “*Bringing new platforms to market: what can we learn from novel low-cost testing for HIV-Resistance?*” 2023 Antimicrobial Resistance Workshop. McGill Summer Institute of Global Health, Montreal, Canada.
40. 2023: **N Panpradist**, B. Tran, K Yamashita, I. Beck, S. Gilligan-Steinberg, E. Kline, JM. Campbell, J. Okpokwu, GE. Imade, B. Chaplin, P. Kanki, LM. Frenkel, H. Rawizza “*Development of a low-cost ART resistance test for Nigeria’s HIV population,*” International Aids Society. Brisbane, Australia.
41. 2023: IA Beck, CL Boyce, M Bishop, YL Vu, A Fung, S Styrchak, **N Panpradist**, BR Lutz, LM Frenkel “*Development and Optimization of Oligonucleotide Ligation Assay (OLA) Probes for Detection of HIV-1 Resistance to Dolutegravir,*” HIV Drug Resistance Workshop. Cape town, South Africa.
42. 2023. **N Panpradist**^{1,2*}, IA Beck^{3*}, A Miller¹, AM Cash¹, J Campbell¹, SWA Stewart^{1,3}, PS Ruth⁴, B Chohan^{1,5}, P Owiti⁶, G Akinyi⁷, N Nyakundi⁷, VA Sewe⁷, RS Madada², V Onwonga², S Akasa², K Yamashita¹, B Tran¹, EC Kline¹, J Vrana¹, G Thakur¹, JH Kotnik¹, J Sprecher¹, Q Wang¹, S Gilligan-Steinberg¹, J Henthorn¹, JK Liu¹, KL Tukei¹, M Samadpour⁸, L Kingwara², N Bowen², V Opollo⁷, LM Frenkel^{1,3}, L Abuogi⁹, E Klavins¹, P Oyaro⁷, BR Lutz^{1†}, R Patel. “*Diagnostic accuracy of a near point-of-care HIV drug resistance test OLA-Simple: a field validation study in Kenya.*” HIV Drug Resistance Workshop. Cape town, South Africa.
43. 2023: **N Panpradist**, “*Co-creating innovations to overcoming barriers in molecular diagnostics in and outside labs*”, University of Pretoria, Pretoria, South Africa
44. 2023: **N Panpradist**, A Wray, C Tarpey, BA. Briones-Ortiz, PS Ruth, I Spies, KF Böhringer, BR Lutz, L Hauser. “*Fish Oligonucleotide Ligation Assay: a molecular classifier assay for rapid, portable, and inexpensive Pacific cod (Gadus macrocephalus) population assignment,*” Biomedical Engineering Society. Seattle, Washington.
45. 2023: A Kim*, K Ruslim*, X Hu, S Macris, J Brown III, K Bohringer, **N Panpradist** “*Development of a rapid assay and portable device to detect tuna species,*” Biomedical Engineering Society. Seattle, Washington. * Equal contributions
46. 2023: I Seo*, B Tran*, BR Lutz, **N Panpradist**. “*High-throughput probe development for oligonucleotide ligation assay to detect tuberculosis resistance,*” Biomedical Engineering Society. Seattle, Washington. * Equal contributions
47. 2023: B Tran*, K Yamashita*, I Seo, W Nakata, R Odera, BR Lutz, **N Panpradist**. “*Development of oligonucleotide ligation assay and lateral flow test to detect multi-drug*

- resistance tuberculosis*,” Biomedical Engineering Society. Seattle, Washington. * Equal contributions
48. 2023: K Yamashita, S Gilligan-Steinburg, Josef Henthron, BR Lutz*, **N Panpradist***. 2023. “*Amplicon-contained lateral flow test that enables sequential delivery: a demonstration on HIV resistance detection*,” Biomedical Engineering Society. Seattle, Washington.
 49. 2023: R Sonigra, BR Lutz, **N Panpradist**, “*Python-based algorithm for binary classification of lateral flow test for HIV drug resistance detection*,” Biomedical Engineering Society. Seattle, Washington.
 50. 2023: I Seo, B Tran, BR. Lutz, **N Panpradist**, “*A rapid, high-throughput, melt-based assay for rapid optimization of oligonucleotide ligation assay to detect multi-drug resistant tuberculosis*,” Biomedical Engineering Society. Seattle, Washington.
 51. 2023: **Nuttada Panpradist**, Jack Henry Kotnik, Qin Wang, Parker S Ruth, Chunjong Park, Samuel W A Stewart, Annika Sahota, Charalampos Mystakelis, David Nelson, Sejal Bavishi, Ami Patel, Barry R Lutz, Ruth Kanthula, “*In-clinic feasibility testing of a point-of-care low-cost COVID-19 RT-PCR test: a case study at MedStar Georgetown University Hospital Pediatric clinic*,” Biomedical Engineering Society. Seattle, Washington.
 52. 2023: Megan van Meurs, Jeff Navila, Georg Seelig, **Nuttada Panpradist**, “*A model system to detect virulent S. marcescens infection using an engineered restriction endonuclease mediated DNA strand displacement (resDSD) circuit*,” Biomedical Engineering Society. Seattle, Washington.
 53. 2023: Anastasia Giyouun Kim, Lesley Chan, Xuanchang Hu, **Nuttada Panpradist**. “*Point-of-care assay for screening congenital cytomegalovirus*,” Biomedical Engineering Society. Seattle, Washington.
 54. 2023: Sami Nguyen, Enos Kline, Barry R Lutz, **Nuttada Panpradist**, “*Development of a reverse transcription recombinase polymerase amplification assay targeting long terminal repeat regions of the HIV-1 genome to enable HIV-1 RNA viral quantification at point-of-care*,” Biomedical Engineering Society. Seattle, Washington.

Upcoming:

55. 2023: Kyla Yamashita, Anastasia Kim, Brian Tran, Ronald Odero, Barry Lutz, **Nuttada Panpradist**, “*Development of low-cost oligonucleotide ligation assay and lateral flow test to detect multi-drug resistant tuberculosis*,” 2023 International Lung TB Union, Paris, France.

PATENT APPLICATIONS

- 1) Provisional Patent Application 63/165,029 filed 3/23/2021 Entitled: "**SYSTEMS AND METHODS FOR DETECTING SARS-COV-2 RNA.**"
- 2) Provisional Patent Application 63/049,941 filed 7/9/2020 Entitled: "**Kit for Sample Collection and Preparation for Amplification.**"
- 3) Provisional Patent Application 63/049,758 filed 7/9/2020 Entitled: "**Amplification Device.**"
- 4) PCT Application WO 2019/222716 filed on 05/17/2019 Entitled: "**Systems and Methods for ligation.**"

ONGOING AND RECENTLY ENDED SUPPORTS

NIH/NIAID 2R01 AI145486-06

Lutz (PI)

12/2023-11/2028 (pending)

V-OLA: Point-of-Care HIV Viral Load Monitoring and Drug Resistance Testing

Role: Co-Investigator

NIH/NIAID P30 AI027757

Celum (PI)

06/01/2023-05/31/2028

UW/Fred Hutch Center for AIDS Research

Role: Co-Investigator

NIH/NIAID R01 AI145486

Lutz (PI)

07/01/2019-06/30/2024

V-OLA: Point-of-Care HIV Viral Load Monitoring and Drug Resistance Testing

Role: Co-Investigator

NIH/NIAID R21 A164468

Rawizza (PI)

07/07/2020-07/06/2023

Acquired HIV drug resistance among Nigerian children failing first-line ART: Implications for second-line dolutegravir use

Role: Co-Investigator

Thrasher Early Career Award Proposal

Panpradist (PI)

01/01/2023-01/31/2024

Development of a point-of-care wearable device for congenital cytomegalovirus screening in newborns

University of Washington ITHS Catalyst Award

Panpradist (PI)

06/01/2023-11/30/2023

Evaluation of rapid assay for screening congenital cytomegalovirus in pediatric urine samples

University of Washington Population Health Initiative (Tier II)

Panpradist (MPI)

02/01/2023-01/31/2024

Development of PCR-free, phage-mediated molecular diagnostic tools for bacterial infection detection at the point-of-care

University of Washington ITHS Catalyst Award

Panpradist (PI)

03/01/2023-08/30/2023

Development of a versatile point-of-care diagnostic toolkit for seafood safety analyses

Seattle Tuberculosis Advancement Center New Investigator Award

Panpradist (PI)

01/30/2023-01/29/2025

Development of a near point-of-care assay for tuberculosis drug resistance detection in Kenya

U of WA/FHCC for AIDS Research New Investigator Award

Panpradist (PI)

12/01/2022-11/30/2024

Feasibility study of a novel wearable ultrasensitive, quantitative HIV viral load test

U of WA Center for Environmental Forensic Science

Bohringer (PI)

03/01/2022-06/30/2022

Development of Tuna Species Identification tool

Role: Project Director/ Co-Investigator

ADHOC REVIEWER FOR SCIENTIFIC MANUSCRIPTS

Journal of BMC Infectious Disease, Journal of Acquired Immune Deficiency Syndromes, Journal of Pathogens, Journal of Transactions, Journal of Acquired Immune Deficiency Syndromes

WORKSHOP

1. 2023: Chiang Mai University, Thailand. Sep 12th – 14th:
I co-organized and served as the lecturer for a capacity building workshop titled, “*Academic writing for NIH proposals and technology transfer from innovative ideas to commercialization*”

TEACHING

- | | |
|----------|--|
| 11.29.22 | INVITED GUEST LECTURER
BIOEN215 Introduction to Bioengineering (Dr. Sarah Snyder)
“Overcoming barriers in diagnostics in and outside the lab” (class of 200 students, Department of Bioengineering, University of Washington) |
| 11.07.22 | INVITED GUEST LECTURER
BIOEN404 Capstone Team Design (Dr. Chris Neils)
“Development of Point-of-care Technologies for HIV Drug Resistance Testing”
Pith project for senior bioengineering students |
| 03.26.18 | INVITED GUEST LECTURER
GH403/503 Multidisciplinary Perspectives in Global Health (Dr. Patricia Pavlinac) “Engineering, Bioengineering Interventions, and Global Health” (Class of 120 students, Department of Global Health, University of Washington). |
| 02.14.18 | INVITED GUEST LECTURER
GH499/599 Bioengineering Solutions to Improve the Health of Women, Children, and Adolescents (Dr. Brandon Guthrie) “Challenges and Opportunities to Improve Health of Women, Adolescents and Children in Resource-Poor Settings” (class of 30 students, Department of Global Health, University of Washington) |
| 11.20.17 | INVITED GUEST LECTURER |

BIOEN215 Introduction to Bioengineering (Dr. Dianne Hendricks)
“Development of Point-of-care Technologies for HIV Drug Resistance Testing” (class of 200 students, Department of Bioengineering, University of Washington)

03.30.17 INVITED GUEST LECTURER
GH403/503 Multidisciplinary Perspectives in Global Health (Dr. Patricia Pavlinac) “Engineering, Bioengineering Interventions, and Global Health” (Class of 150 students, Department of Global Health, University of Washington)

01.25.17 INVITED GUEST LECTURER
GH499/599 Bioengineering Solutions to Improve the Health of Women, Children, and Adolescents (Dr. Brandon Guthrie) “Etiology Diagnosis of Pediatric Diarrhea” co-lectured with Asst. Prof. Patricia Pavlinac, co-director of the Health Growth & Development Core, Global WACH (class of 30 students, Department of Global Health, University of Washington)

01.20.16 INVITED GUEST LECTURER
GH499/599 Bioengineering Solutions to Improve the Health of Women, Children, and Adolescents (Dr. Brandon Guthrie) “Opportunities for Point-of-Care Tuberculosis Diagnostics from a Urine Sample” co-lectured with Dr. Silvia LaCourse, a clinician, research, and tuberculosis expert. (Class of 30 students, Department of Global Health, University of Washington)

01.2016 — 03.2016 TEACHING ASSISTANT
BIOEN531 Proposal Writing (Dr. Martha Scatena)
This is one of the three graduate-level core classes (class of 27 students, the Department of Bioengineering, University of Washington)

09.2014 —12.2014 GRADER
BIOEN499 Biomaterials (Dr. James Bryers and Dr. Buddy Ratner)
(Class of 40 students, the Department of Bioengineering, University of Washington)

RESEARCH MENTORING/ SUPERVISING

Graduate student mentored/advised:

Completed:

10.2015 —12.2015 Surasak Kasetsirikul (He) (Intern from M.S. Mechanical Engineering Program at Chulalongkorn University, Thailand). Recent Ph.D. Graduate at Griffin University in Australia

Ongoing:

05.2023 – Present Amornrat Sangsaikaew (She) (2024 Ph.D. Nursing, Khon Kaen University, Thailand) – co-advised with Dr. Wasana Ruaisungnoen

Undergraduate student mentored:

Completed:

- 01.2014 — 06.2016 Ian Andrews (He) (2016 B.S. Bioengineering) 2014 Mary Gates Research Scholar, 2015 President of UW Biomedical Engineering Society, 2016 Husky 100. Recent Ph.D. graduate from Massachusetts Institute of Technology
- 12.2015 — 06.2017 Nikki Higa (She) (2017 B.S. Bioengineering) 2015 Mary Gates Research Scholar, Current Ph.D. student at USC
- 11.2015 — 06.2017 Annie Wong-On-Wing (She) (2017 B.S. Chemistry and Biochemistry) 2016 Mary Gates Research Scholar, ACS Certified, Recent MD from UW
- 01.2016 — 06.2018 Jonathan Lim (He) (2018 B.S. Bioengineering, co-mentor with Amy Oreskovic) 2017 Mary Gates Research Scholar. Current research scientist at Juno Therapeutics.
- 10.2016 — 06.2018 Annapurni Sriram (She) (2018 B.S. Bioengineering) 2017 Mary Gates Research Scholar, 2017 President of UW Biomedical Engineering Society. Current medical student at Pittsburg University.
- 12.2015 — 06.2018 David McIntyre (He) (2018 B.S. Bioengineering) 2016 Mary Gates Research Scholar, 2016 President of UW Engineering Without Border, 2017 Husky 100, 2017 Member of UW Engineering Without Border. Recent Ph.D. graduate at Boston University.
- 02.2017 — 06.2018 Betelhem Yohannes (She) (2018 B.S. Bioengineering, co-mentor with Dr. James Lai) 2015 Mary Gates Research Scholar, 2016 William P. and Ruth Gerberding/Early Identification Program Scholar. Recent MD at UW.
- 10.2022 — 03.2023 Daniel Shin (He) (2023 B.S. Bioengineering)
- 05.2022 — 09.2023 Kenneth Ruslim (He) (2023 B.S. Electrical Engineering and Computer Science). 2023 Mary Gates Research Scholar. Engineer at the UW Formula One Racing Team.
- 10.2022 — 06.2023 Ellie Bagley (She) (2023 B.S. Bioengineering)

Ongoing:

- 05.2022 — Present Anastasia Kim (She/They) (2023 B.S. Molecular Cellular and Development Biology, Minor in Gender, Women, and Sexuality Studies). 2022 Mary Gates Research Scholar.
- 06.2022 — Present Annika Sahota (She) (2022 M.S. Applied Bioengineering, Cert. Global WACH; 2021 B.S. Microbiology, B.A. Biochemistry, Minors in Human Rights and Computational Neuroengineering), Prospective Ph.D. Bioengineering student.
- 08.2022 — Present Sophia Reyes Lopez (She) (2024 Lakeside High School, Seattle)
- 09.2022 — Present Xuanchang Hu (He) (2024 B.Eng. Electrical and Computer Engineering)
- 09.2022 — Present Stephen Macris (He) (2024 B.Eng. Electrical and Computer Engineering)
- 10.2022 — Present Megan Van Meurs (She/He/They) (2025 B.S. Bioengineering). 2023 Mary Gates Research Scholar

- 10.2022 — Present Lesley Chan (She) (2025 B.S. Bioengineering)
 11.2022 — Present Inyoung Seo (He) (2024 B.S. Bioengineering)
 11.2022 — Present Sami Nguyen (She) (2025 B.S. Bioengineering)
 01.2023 — Present Mathea L Caole (She) (2025 B.S. Bioengineering)

Research Scientist supervised:

- 10.2016 — 07.2017 Isaac So (He) (Researcher from Seattle Children’s Research Institute, 2015 B.S. Molecular Biology). Recent dental school graduate from University of Washington
 03.2021 — 06.2022 Jordan Campbell (He)
 06.2022 — Present Brian Tran (He) (2022 B.S. Bioengineering)
 07.2022 — Present Kyla Yamashita (She) (2022 B.S. Bioengineering)

Graduate Thesis Supervisory Committee:

- 05.2023 – Present Shane Gilligan-Steinberg (He) (2025 Ph.D. Bioengineering, UW)

External Ph.D. Examination Committee:

- 06.2023 – 07.2023 Khulula Maluleke (She) (2025 Ph.D. Public Health, University of Pretoria)

LEADERSHIP & SERVICE

Non-UW services

- 03.29. 2019 **PANELIST**
 Venturewell/OPEN Panel (National Event)
 MedTech Rising in Nascent and Emerging Markets – Fact or Fiction?
 Other panels are Melissa L Mugambi (UW Global Health), Flora Amwayi (Attorney), Emily Hillman (USAID), Mark Lim (Gates Foundation), Washington, DC, USA.
 We discussed challenges for medical devices to enter the markets and ways to overcome these issues.
- 10.10 —12.10.2017 **VOLUNTEER**
 Recruitment Booth at UW Biomedical Engineering Society, Phoenix, Arizona (National Event)
 Graduate student representatives to provide the information of research and academic programs at the University of Washington for prospective graduate students.
- 10.04.2014 **VOLUNTEER**
 Innovation Day at Bill & Melinda Gates Visiting Center
 Represented the UW College of Engineering with other members in the Lutz Research Group to introduce high school kids and parents to resonance frequencies and their applications in biomedical research.
- 05.18.2014 **PANELIST**
 Bio/Chemical Engineering Panelist, STEM Career Fair for Bellevue School Districts, Sammamish High School

Sole Ph.D. student representative to share my path to engineering school. The other panelists were Jim Pfaendtner (UW Faculty), Alison Bianchi (Principal Scientist at Amgen, Inc.), Mike Roberts (Executive Director of Pulp and Paper Foundation).

07.19.2013

PANELIST

SHINE Nano Teacher Workshop

Invited to share my experience as a student in the Nanotechnology Program and discussed how to educate high school students the basic principles and applications of nanotechnology.

UW services

03.2023

CHAIR, REVIEW COMMITTEE

Global WACH Seeds for Change Awards

12.04.2022

UW GLOBAL AFFAIRS | UW ALUMNI ASSOCIATION IN THAILAND

Participated in stimulating discussions with the Bangkok Governor and Thailand UW Alumni Chapter on how to promote the recruitment of Thai students to the UW and promote alumni engagement with current and prospective students

12.2020 – 01.2021

BIOENGINEERING CHAIR SEARCH

Represented bioengineering students to interview the Bioengineering Chair candidates

01.2017 – 06.2019

COMMITTEE MEMBER

UW Bioengineering International Working Group (Faculty Lead: Dr. Karen Thickman)

Invited to serve as a graduate student representative of this working group, which aims to pioneer a new departmental curriculum that focuses on enhancing the international experience for bioengineering students. I routinely participate in discussions for the development of plans and proposals.

09.2017 –06.2018

COMMITTEE MEMBER

UW Bioengineering Diversity Committee (Faculty Lead: Dr. Lara Gamble)
Selected as a graduate student representative to participate in discussion for development of plans and proposals to create an inclusive environment for students, faculty, and staff.

11.2015 — 07.2016

MENTOR

Making Connections, UW Women's Center

Served as a mentor for high school students from socio-economically disadvantaged backgrounds in the Seattle area and exposed them to education and career opportunities in the STEM fields.

03.04.2017

VOLUNTEER

UW Bioengineering Interview Weekend

Presented a poster and recruited graduate student candidates

- 08.09.2017 **PANELIST**
 General Exam Workshop, Department of Bioengineering, University of Washington
 Selected as one of the three student representatives in the 2013 Ph.D. cohort to provide guidance and share experience in preparing for General Exam for the rising 3rd year Ph.D. students in the department.
- 07.15.2015 **PANELIST**
 Qualifying Exam Workshop, Department of Bioengineering, University of Washington
 Selected as one of the five student representatives in the 2013 Ph.D. student cohort to provide guidance and share experience on how to prepare for the Qualifying Exam for the rising 2nd year Ph.D. students.
- 11.24.2014 **PANELIST**
 Re-engineering Global Health arranged by Global Health Undergraduate Leadership Committee
 Invited to represent the Department of Bioengineering to discuss research opportunities in the conjoined field of bioengineering and global health.
- 04.25.2014 **VOLUNTEER**
 UW Engineering Discovery Days
 Represented the Department of Bioengineering to promote the bioengineering concepts to high school students with other members in the Lutz Research Group.
- 03.21.2014 **VOLUNTEER**
 UW Bioengineering Annual Rushmer Lecture Event Presented poster and recruited graduate student candidates

Prior to my time as a Ph.D. student

- 05.17.2012 **STUDENT REPRESENTATIVE**
 Visit of the National Science Foundation Representative to North Seattle College Nanotechnology Program Selected as one of the three student representatives to present research from the internship at the University of Washington, titled "Point-of-care HIV diagnostics."
- 10.29.2012 **STUDENT REPRESENTATIVE**
 Visit of the White House Representative for President Obama's Council on Asian American Affairs
 Sole student at North Seattle College participated and promoted the NorthStar Peer Navigation Leadership Program. NorthStar Peer Navigation Program is a student support service for underrepresented African Americans, Asian Pacific Islander, Native American, and Hispanic student populations. Navigators assist each student in creating an individual success plan unique to each student's particular needs, abilities, and academic pathway.

INTERVIEWS AND MEDIA

Non-UW media

- 01.2022 FOX 13 News. "UW Researchers develop fast, highly-accurate COVID-19 test <<https://www.q13fox.com/news/uw-researchers-develop-fast-highly-accurate-covid-19-test>>
- 08.2021 News Medical Life Science. "Study suggests Harmony COVID-19 assay is superior to laboratory-based tests" by Jocelyn Solis-Moreira <<https://www.news-medical.net/news/20210818/Study-suggests-Harmony-COVID-19-assay-is-superior-to-laboratory-based-tests.aspx>>
- 04.2020 Reuters Health. "New Test Accurately Detects Drug Resistance Mutations in HIV-1" <<https://www.newshealth.biz/health-news/new-test-accurately-detects-drug-resistance-mutations-in-hiv-1/>>
- 09.2019 Bus and postage campaign in Seattle area advertising by North Seattle College. "Nuttada changes the world, and she started at North."
- 04.2019 North Seattle College "GRADUATE SPOTLIGHT" <<https://www.youtube.com/watch?v=ZOKWam3l3uY>>
- 02.2018 GEEKWIRE. "Student entrepreneurs tackle genetic testing, clinical trials at health startup competition" by Clare McGrane <<https://www.geekwire.com/2018/student-entrepreneurs-tackle-genetic-testing-clinical-trials-health-startup-competition/>>
- 02.2017 SEATTLE KING 5 NEWS "UW student wins coveted grant to develop HIV rapid test" By Lily Tan <<http://www.king5.com/article/news/local/uw-student-wins-coveted-grant-to-develop-hiv-rapid-test/415096016>>
- 09.2017 Biomedical Engineering Society (BMES) "BMES ANNOUNCES TRAVEL AWARD WINNERS" <http://www.bmes.org/blog_home.asp?display=57>
- 09.2016 Massachusetts General Hospital Press Release "\$400,000 Awarded to Three Students for Primary Healthcare Technology." <<http://www.massgeneral.org/apf/assets/pdf/APF-2016-PressRelease.pdf>>

UW Bioengineering, College of Engineering website

- 07.2023 Brotman Baty Institute Promising Young Scientist: From Bangkok to Seattle, Nuttada Panpradist is a Profile in Courage. "Hard Work and Perseverance can Allow You to Reach Your Goal." <<https://brotmanbaty.org/news/promising-young-scientist-from-bangkok-to-seattle-nuttada-panpradist-is-a>>
- 02.2022 Department of Bioengineering, University of Washington New Ph.D. grad Nuttada Panpradist ready for next challenge: faculty position <<https://bioe.uw.edu/new-ph-d-grad-nuttada-panpradist-ready-for-next-challenge-faculty-position/>>
- 07.2021 Department of Bioengineering, University of Washington BioE members win teaching, staff, student research awards <<https://bioe.uw.edu/bioe-members-win-teaching-staff-student-research-awards/>>
- 11.2020 Chelsea Yates, A Culture of collaboration: Bioengineering Faculty Pivot Diagnostics Research to Support the Need for COVID-19 Testing

- <<https://www.engr.washington.edu/news/article/2020-11-16/engineering-covid19-testing>>
- 06.2020 Department of Bioengineering, University of Washington. Meeting the need for COVID-19 test kits: pivoting from Seattle Flu Study and developing new rapid tests <<https://bioe.uw.edu/meeting-the-need-for-covid-19-test-kits-pivoting-from-seattle-flu-study-and-developing-new-rapid-tests/>>
- 06.2018 Department of Bioengineering, University of Washington
 “A-Alpha Bio, Nanodroper, OLA Simple finish strong, win \$32,500 at 2018 UW Business Plan Competition” <<https://bioe.uw.edu/a-alpha-bio-nanodropper-ola-simple-finish-strong-win-32500-at-2018-uw-business-plan-competition/>>
- 03.2018 Department of Bioengineering, University of Washington
 “A-ALPHA BIO, OLA SIMPLE WIN TOP PRIZES AT 2018 HOLLomon HEALTH INNOVATION CHALLENGE”
 < <https://bioe.uw.edu/a-alpha-bio-ola-simple-win-top-prizes-at-2018-hollomon-health-innovation-challenge/>>
- 02.2017 Department of Bioengineering, University of Washington
 “NUTTADA PANPRADIST WINS \$50,000 THIRD PLACE APF STUDENT TECHNOLOGY PRIZE FOR PRIMARY HEALTHCARE”
 By Laura Wright <<http://bioe.uw.edu/nuttada-panpradist-wins-50000-third-place-apf-student-technology-prize/>>
- 12.2017 Department of Bioengineering, University of Washington “NUTTADA PANPRADIST PRESENTS OLA-SIMPLE HIV DRUG RESISTANCE TEST IN SOUTH AFRICA” By Laura Wright <<http://bioe.uw.edu/nuttada-panpradist-ola-simple-south-africa-2017/>>
- 06.2017 Department of Bioengineering, University of Washington
 “NUTTADA PANPRADIST RECEIVES GRADUATE DISCOVERY FELLOWSHIP”
 By Laura Wright <<http://bioe.uw.edu/nuttada-panpradist-receives-graduate-discovery-fellowship/>> <<http://bioe.uw.edu/coulter-seed-grant-tb-diagnosis-urine-2/>>
- 02.2017 College of Engineering, University of Washington
 “Global research impact: BioE grad student seeks to develop instrument-free diagnostic device to detect HIV infection and drug resistance” By Chelsea Yates
 <<http://www.engr.washington.edu/news/panpradist>>
- 05.2016 Department of Bioengineering, University of Washington
 “WENDY THOMAS AND NUTTADA PANPRADIST RECEIVE 2016 UW UNDERGRADUATE RESEARCH MENTOR AWARDS” By Laura Wright
 <<https://bioe.uw.edu/wendy-thomas-and-nuttada-panpradist-receive-uw-undergraduate-research-mentor-awards/>>
- 06.2015 Department of Bioengineering, University of Washington “2015 BIOE AWARDS RECIPIENT PROFILES: SUZIE PUN, NUTTADA PANPRADIST, TED CHEN AND COLLEEN IRVIN” By Laura Wright
 <<https://bioe.uw.edu/2015-bioe-awards-profiles-suzie-pun-nuttada-panpradist-ted-chen-colleen-irvin/>>
- 12.2014 Department of Bioengineering, University of Washington

- “PH.D. STUDENT AND HHMI NOMINEE NUTTADA PANPRADIST BRINGS GLOBAL PERSPECTIVE TO CONFRONTING HIV, TB” By Laura Wright
<<https://bioe.uw.edu/nuttada-panpradist-global-perspective-hiv-tb/>>
- 10.2014 Department of Bioengineering, University of Washington “PH.D. STUDENT’S QUANTITATIVE ANALYSIS OF SWAB PERFORMANCE PUBLISHED IN PLOS ONE, MAY INFORM FUTURE DIAGNOSTIC TEST DEVELOPMENT” By Laura Wright < <https://bioe.uw.edu/swab-performance-plos-one/> >
- 09.2014 Department of Bioengineering, University of Washington
“PH.D. STUDENT’S IDEA FOR DEVICE THAT DIAGNOSES TUBERCULOSIS FROM URINE LEADS TO GLOBAL WACH/W.H. COULTER FOUNDATION SEED GRANT” By Laura Wright

Global WACH, Global Health, School of Public Health

- 03.2017 School of Public Health, University of Washington
“CLOSE UP MARCH 2017: NUTTADA PANPRADIST” By Ashlie Chandler
<http://sph.washington.edu/news/closeup/profile.asp?content_ID=8363>
- 08.2014 Global Center for Integrated Health of Women, Adolescents and Children, University of Washington “Global WACH & Coulter Foundation 2014 Pilot Award”
By Jennifer Spragg
<<http://depts.washington.edu/gwach/global-wach-coulter-foundation-2014-pilot-award/>>

UW Commercialization/Business school

- 06.2020 Why I-Corp? Interview participant for the UW CoMotion NSF I-Corps Program
<https://www.youtube.com/watch?v=RYWm6Zy5vo&list=PLgY5Ho7zWk2OdddvkMzeqwcQQqlhKqe_K&index=3>
- 05.2018 Foster Blog. “Innovation Smorgasbord: seen, heard and tasted at the UW Business Plan Competition” by Ed Kromer <<https://blog.foster.uw.edu/innovation-smorgasbord-taking-uw-business-plan-competition/>>