



PharmAlliance

2024

Impact Report



**Annual Report &
Engagement
Metrics**

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A Message from PharAlliance Staff

Dear PharmAlliance Family,

As we approach the 10th anniversary of this remarkable partnership, it's the perfect moment to celebrate the incredible progress made together in advancing pharmacy education, research, and practice through relentless collaboration and innovation. Together, we have published over 130 peer-reviewed manuscripts and delivered more than 60 presentations at conferences globally. We have facilitated 176 student exchanges, both in person and virtually, and awarded over \$30,000 USD in seed funding and collaborative grants through our internal funding models. Our new initiatives, like the design thinking workshops, have harnessed our diverse perspectives to tackle pressing issues, empowering our researchers in areas such as opioid use disorders, mental health and pandemic preparedness. Looking ahead, we remain steadfast in our mission to cultivate innovative ideas and our vision of transforming pharmacy education, practice and research worldwide. The strong foundation we have built positions us to continue to make significant strides in our field and to improve human health.

Sincerely.

Sophia Mortha, PharmD

PharmAlliance Program Coordinator



About PharmAlliance

Mission & Vision

- **Mission:** To cultivate and pursue innovative ideas with a focus on big problems and opportunities that member institutions could not address alone.
- **Vision:** To transform pharmacy education, practice, and research worldwide.

Strategic Priorities

- Collaborative global educational opportunities in both pharmacy and pharmaceutical sciences
- Joint advocacy for pharmacy practice and practice models, facilitated through building a strong communications network
- Supporting and developing our global community
- Scholarship to support targeted, strategic global health missions in areas of critical mass and strength within our schools, including but not limited to
 - drug discover and development in antimicrobial resistance, pandemic readiness and responsiveness
 - underpinning science and translational research relating to neurological and neuropsychiatric disorders
 - pharmacoepidemiology and population studies in relation to medicines safety and usage
 - development of biologics (e.g., gene and cellular therapies)

Community Guidelines

- **Mission:** To ensure a culture where diversity of thought, background and perspective is welcomed in our partnership's collective pursuit of innovative ideas and solutions
- **Vision:** Aspire to be worldwide leaders in equity in pharmacy and pharmaceutical sciences education, practice and research through our commitment to diverse and inclusive practices
- **Community Guidelines and Commitments:**
 - PharmAlliance proactively seeks and values the perspectives and ideas of all its members in our collective pursuit of innovative ideas and solutions to big problems. This includes all roles, genders, races, ethnicities, religions, ages, sexualities, physical abilities, sexual identities, and cultural and geographical backgrounds
 - Our EDI events, initiatives, and opportunities are designed to be accessible by all faculty, staff, and students from each institution
 - PharmAlliance promotes advancement of research, teaching and career development for all, especially those underrepresented, marginalized and/or systemically and historically discriminated against.
 - PharmAlliance embeds cross-cultural interactions and encourages appreciation of cultural or other differences.
 - PharmAlliance values the thoughts and criticism of its community to constantly improve our approach to diversity, equity and inclusion.
 - Specifically, PharmAlliance commits to:
 - Diverse and inclusive panels, conference speakers, leadership, research promotion, and funding
 - Equitable and inclusive access to events and materials. This includes, but is not limited to, consideration of time zones and core work hours, leave/vacation policies, holidays and religious observations, in-person event accessibility (travel, financial, physical requirements), accessible communication formats, remote or delayed engagement methods, invitations to collaborate, differences in technology platforms, closed captioning needs, interpreter or translator needs
 - Recognition of historically marginalized populations in our initiatives, discussions, educational sessions, and research
 - Purposeful engagement with cultural and other differences, as well as their historical impacts on pharmacy and pharmaceutical sciences, during initiatives and activities
 - Continuous quality improvement in our pursuit of these community standards through feedback from staff, faculty, students, and our external audiences

Meet Our Leadership

RESEARCH DOMAIN



**DR. CHRIS
PORTER**

MONASH CHAIR



**DR. KIM
BROUWER**

UNC CHAIR



**DR. ZOE
WALLER**

UCL CHAIR



**DR. MICHELLE
HALLS**

MONASH DEPUTY
CHAIR



**DR. DELESHA
CARPENTER**

UNC DEPUTY
CO-CHAIR



**DR. KATHRYN
MORBITZER**

UNC DEPUTY
CO-CHAIR



**DR. OSCAR
DELLA PASQUA**

UCL DEPUTY
CHAIR



**DR. ORLAGH
FEENEY**

MONASH ECR
LIASON



**DR. KAROLINA
DZIEMIDOWICZ**

UCL ECR
LIASON

Meet Our Leadership

EDUCATION DOMAIN



DR. BETTY
EXINTARIS

MONASH CHAIR



DR JACQUI
MCLAUGHLIN

UNC CHAIR



PROF. LOUISE
BROWN

UCL CHAIR



PROF. PAUL
WHITE

MONASH DEPUTY
CHAIR



DR. AMANDA
SAVAGE

UNC DEPUTY
CHAIR



DR. MELISSA
RAYNER

UCL DEPUTY
CHAIR

Meet Our Leadership



PRACTICE DOMAIN



**PROF. SIMON
BELL**

MONASH CHAIR



**DR. SACHI
OZAWA**

UNC CHAIR



**DR. YOGINI
JANI**

UCL CO-CHAIR



**DR. SARA
GARFIELD**

UCL CO-CHAIR



**DR. JENNI
ILOMAKI**

MONASH DEPUTY
CHAIR



**DR. DENISE
RHONEY**

UNC DEPUTY
CHAIR



**DR. PINKIE
CHAMBERS**

UCL DEPUTY
CHAIR

Meet Our Leadership

STUDENT DOMAIN



DR. SUZANNE
CALIPH

MONASH CHAIR



DR. DENNIS
WILLIAMS

UNC CHAIR



MS. OKSANA
PYZIK

UCL CHAIR



DR. JUSTIN
TURNER

MONASH DEPUTY
CHAIR



DR. SARAH
MERRITT

UNC DEPUTY
CHAIR



DR. JOHN
MALKINSON

UCL DEPUTY
CHAIR

BY THE NUMBERS: 2015 - 2024



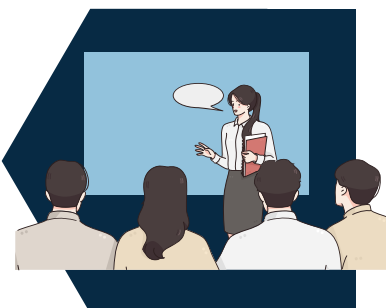
PUBLICATIONS: 133



SCIENTIFIC POSTERS: 25



STUDENT EXCHANGES: 176



PRESENTATIONS: 65



GRANTS AWARDED: 45

Events - June '23 - June '24

PHARMALLIANCE WEEK 2023

| Date | Title | Sponsoring Domain |
|--------------|---|------------------------------|
| 9 July 2023 | PharmAlliance Week 2023: Keynote Address | Leadership |
| 9 July 2023 | Core Concepts in Pharmacology, Medicinal Chemistry and Beyond (Part 1) | Education |
| 10 July 2023 | Signature Session 1 - Mental Health, Well-being, and Profile Snapshots Part 1 | Leadership |
| 10 July 2023 | Signature Session 2 - Mental Health, Well-being, and Profile Snapshots Part 2 | Leadership |
| 10 July 2023 | Signature Session 3 - Research Perspective on Mental Health | Research |
| 10 July 2023 | Research Domain Monthly General Meeting | Research |
| 10 July 2023 | Education Domain Monthly General Meeting | Education |
| 10 July 2023 | Practice Domain Monthly General Meeting | Practice |
| 10 July 2023 | COVID-19 Pandemic Lessons Learned Summit | Student |
| 10 July 2023 | Entrustable Professional Activities (EPAs) for Pharmacy Student Research Training | Education |
| 11 July 2023 | Signature Session 4 - Education, Practice, and Student Perspectives on Student Well-Being | Education, Practice, Student |
| 11 July 2023 | Research Seminar 1 - Nucleic Acid Therapeutics | Research |
| 11 July 2023 | Research Seminar 2 - Mental Health | Research |

Events - June '23 - June '24

PHARMALLIANCE WEEK 2023

| Date | Title | Sponsoring Domain |
|--------------|---|-------------------|
| 11 July 2023 | Building a Curriculum for Resilience and Well-being | Education |
| 11 July 2023 | Teaching of Mental Health Conditions | Education |
| 11 July 2023 | Academic Misconduct and ChatGPT | Education |
| 11 July 2023 | Student Skills Development | Student |
| 11 July 2023 | How Can I Help Series - Global Crises and the Effects on Personal and Professional Development and Wellness | Student |
| 11 July 2023 | Student Domain Project - GLIDE | Student |
| 11 July 2023 | Practice Research Talks | Practice |
| 11 July 2023 | Avenues to Disseminate Research Findings to Practice, Policy, and Consumers | Practice |
| 11 July 2023 | Practice Domain Working Group Discussion | Practice |
| 12 July 2023 | Signature Session 5 - PharmAlliance Domain Perspectives (Panel) | Leadership |
| 12 July 2023 | Signature Session 6 - Consumer Engagement Research from a Multi-Domain Perspective | Practice |
| 12 July 2023 | Core Concepts in Pharmacology, Medicinal Chemistry and Beyond (Part 2) | Education |

Events - June '23 - June '24

| Date | Title | Sponsoring Domain |
|------------------|---|-------------------|
| 10 October 2023 | Communication Tools & Techniques: Infographics as Communication Tools | Practice |
| 01 November 2023 | PARCDT Information Session | Education |
| 08 November 2023 | ECR Showcase: Tools and Techniques | Research |
| 23 February 2024 | Communication Tools & Techniques: Amplifying the Patient Voice | Practice |
| 13 March 2024 | Communication Tools & Techniques: Reaching the Policy Maker | Practice |
| 19 March 2024 | Leveraging Differences for Solutions: Assessing Impacts of High-Risk Medication Deprescribing | Leadership |
| 16 April 2024 | Leveraging Differences for Solutions: Improving Access to Highly Stigmatized Medications | Leadership |
| 01 May 2024 | E-Symposium Day 1 | Research |
| 02 May 2024 | E-Symposium Day 2 | Research |
| 29 May 2024 | Leveraging Differences for Solutions: Creating and Coordinating Community Partnerships to Address Vaccine Hesitancy | Leadership |

TOTAL NUMBER OF EVENTS FROM JUNE 2023 - JUNE 2024 = 35 EVENTS



**RESEARCH
DOMAIN = 8**



**EDUCATION
DOMAIN = 8**



**PRACTICE
DOMAIN = 9**



**STUDENT
DOMAIN = 5**



LEADERSHIP = 5

Engagement

“No one has the market on excellence. We need each other to be better.”

*- Stephen Eckel
UNC*



“Pharmacy academia must play a leading role in fighting misinformation & disinformation”

*- Oksana Pyzik
UCL*



Engagement

“Strategic discussions around collaborative opportunities for the coming year are energizing!”

*- Angela Kashuba
UNC*



“Always good to catch up with lovely friends and colleagues.”

*- Jenni Ilomaki
Monash*

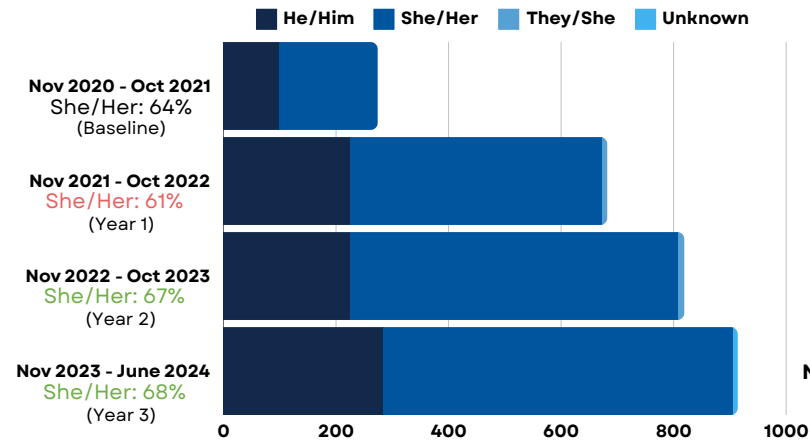


X/Twitter Metrics

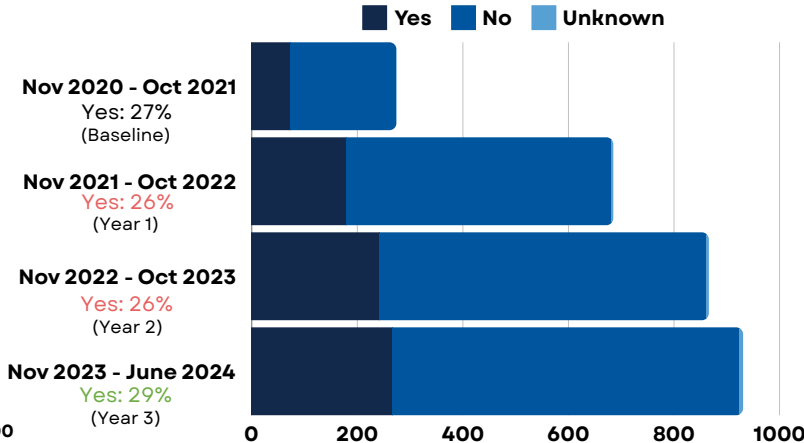
| | September 2022 | June 2023 | June 2024 |
|-----------|----------------|------------------|------------------|
| Followers | 483 | <div>↑</div> 557 | <div>↑</div> 639 |

PharmAlliance created and released Diversity, Equity, and Inclusion (DEI - CGC) Community Guidelines and Commitments in late 2021. The following data characterize some of the ways we promote, recognize, and support people across the Partnership through our social media. These figures compare “X/Twitter” data before and after implementation of the DEI - CGC. The Year 3 period is still ongoing and data represented is before June 2024

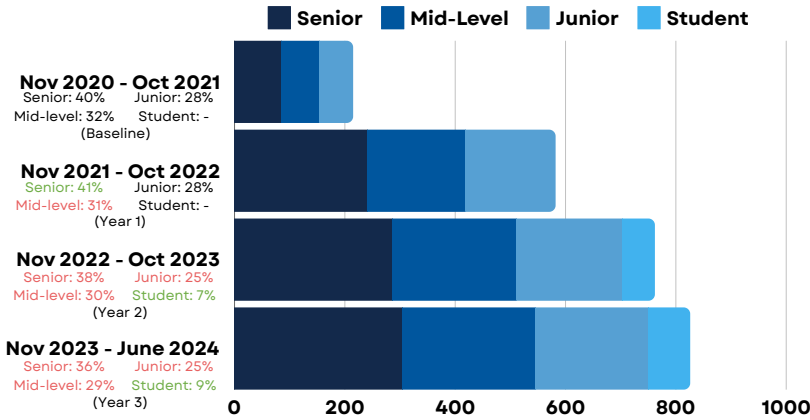
Gender*



Persons of Color**



Academic Rank***



*Gender - determined from pronouns used in online publications or in email signatures. "Unknown" used if pronouns not found.

**"Person of color" or "POC" designations were assumptions made by student/staff researchers, two of which was a POC, based on photos available online. "Unknown" was assigned if no photos were found.

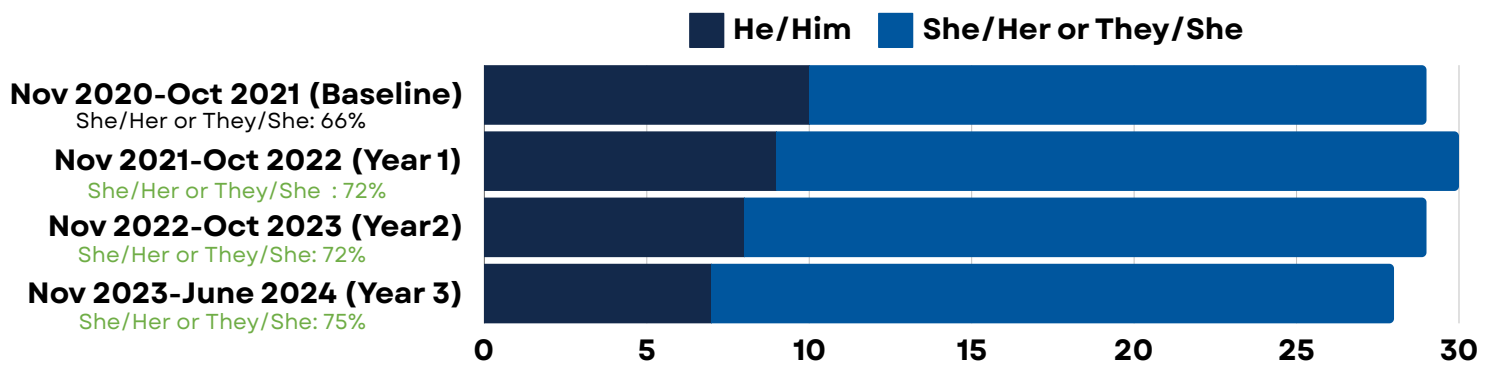
***Junior: Assistant Professor, Lecturer, Level A-C, Professional Services Staff. Mid-level: Associate Professor, Senior Lecturer, Reader, Level D, Director. Senior: Professor, Dean, Chair, Faculty/ Divisional/Departmental Manager, Level E

Leadership Composition Metrics

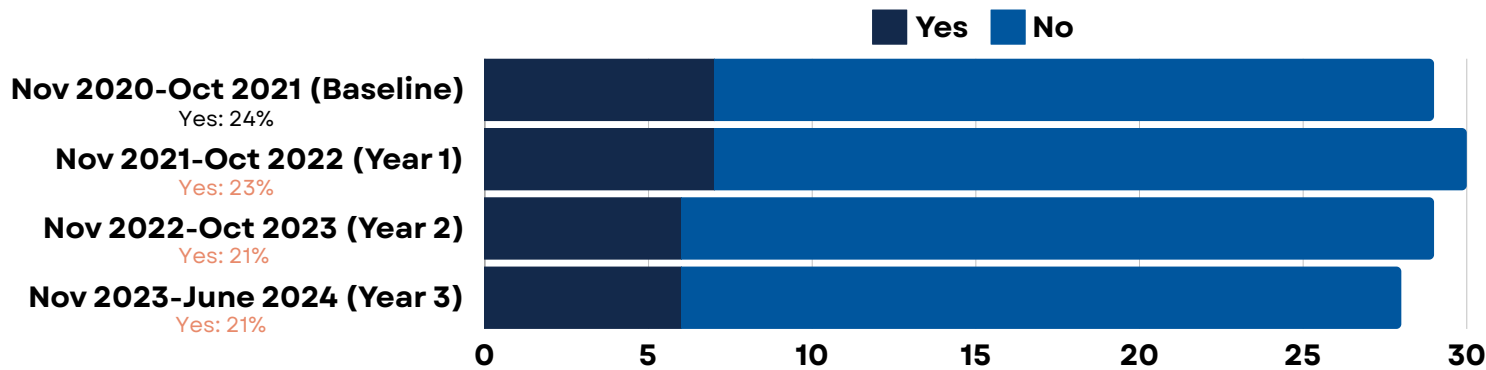


PharmAlliance created and released Diversity, Equity, and Inclusion (DEI - CGC) Community Guidelines and Commitments in late 2021. The following data characterize some of the ways we promote, recognize, and support people across the Partnership through our leadership and speaker composition. These figures compare data before and after implementation of the DEI - CGC. The Year 3 period is still ongoing and data represented is before June 2024

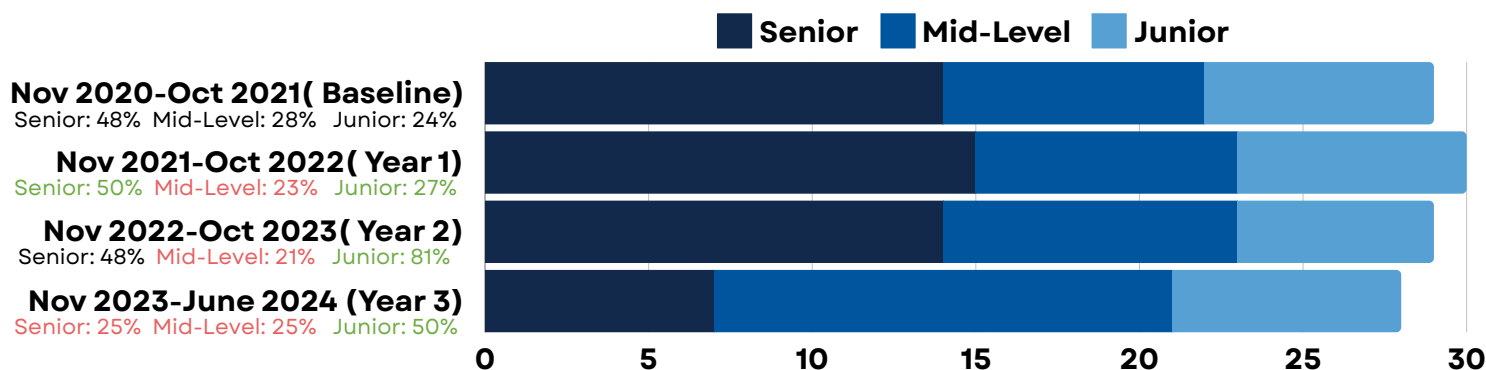
Gender*



Person of Color**



Academic rank ***



*Gender - determined from pronouns in online publications or in email signatures. "Unknown" used if pronouns not found.

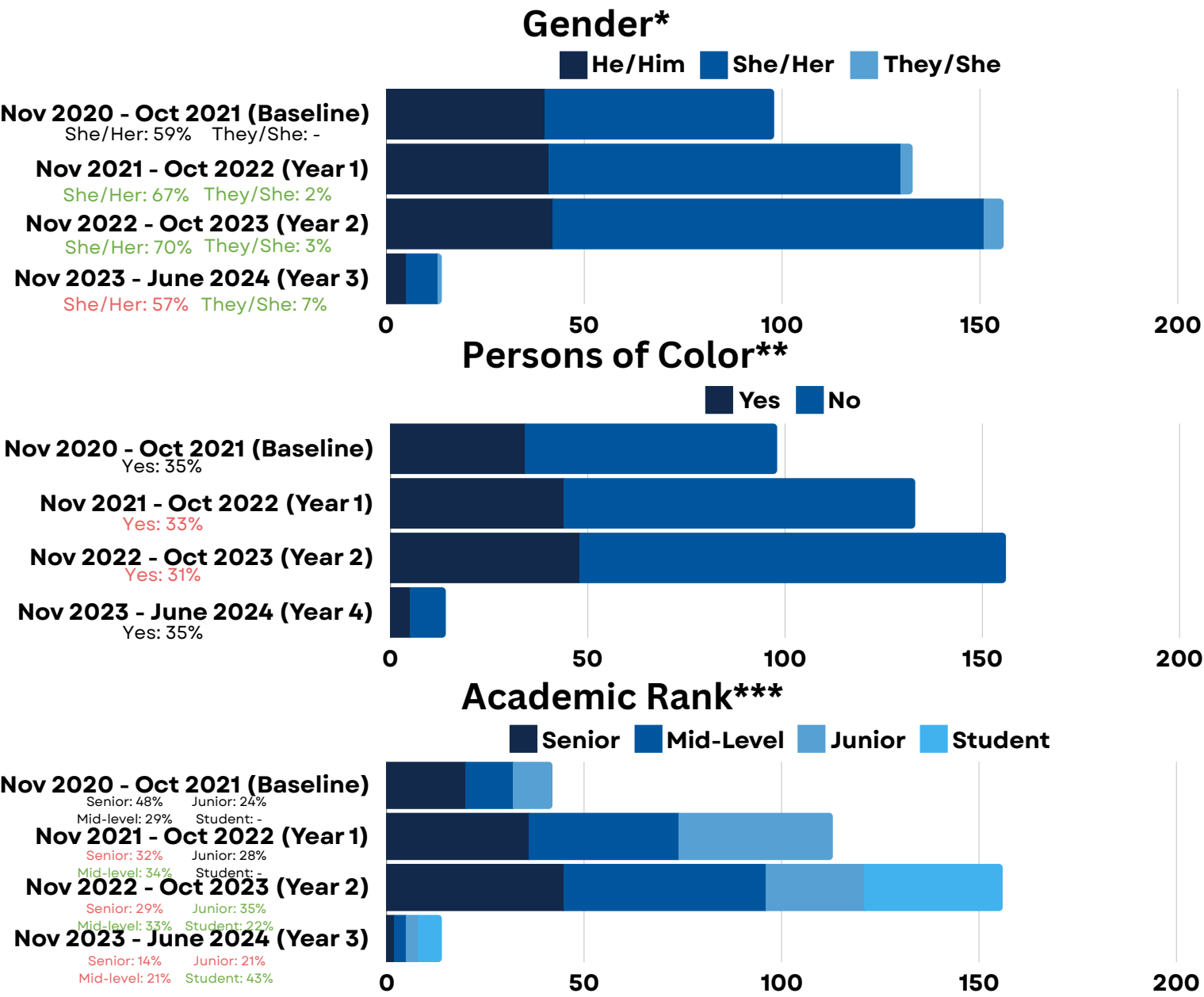
**"Person of color" or "POC" designations were assumptions made by student/staff researchers, two of which was a POC, based on photos available online. "Unknown" was assigned if no photos were found online.

***Junior: Assistant Professor, Lecturer, Level A-C, Professional Services Staff. Mid-level: Associate Professor, Senior Lecturer, Reader, Level D, Director. Senior: Professor, Dean, Chair, Faculty/ Divisional/Departmental Manager, Level E



Speaker Composition Metrics

PharmAlliance created and released Diversity, Equity, and Inclusion (DEI - CGC) Community Guidelines and Commitments in late 2021. The following data characterize some of the ways we promote, recognize, and support people across the Partnership through our leadership and speaker composition. These figures compare data before and after implementation of the DEI - CGC. The Year 3 period is still ongoing and data represented is before June 2024

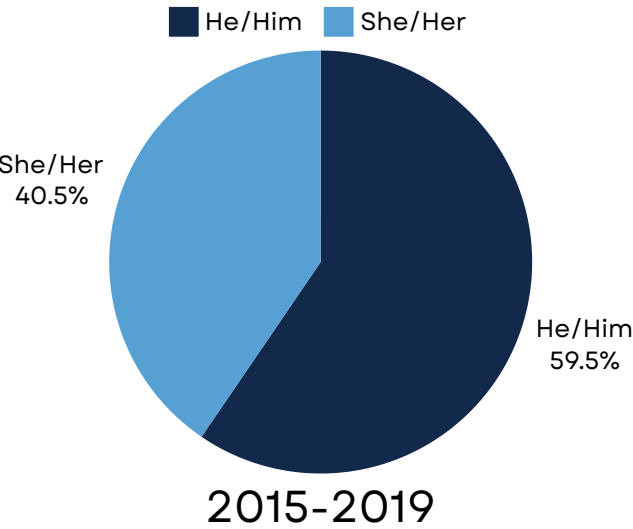


*Gender - determined from pronouns in online publications or in email signatures. "Unknown" used if pronouns not found.
**"Person of color" or "POC" designations were assumptions made by student/staff researchers, two of which was a POC, based on photos available online. "Unknown" was assigned if no photos were found online.
***Junior: Assistant Professor, Lecturer, Level A-C, Professional Services Staff. Mid-level: Associate Professor, Senior Lecturer, Reader, Level D, Director. Senior: Professor, Dean, Chair, Faculty/ Divisional/Departmental Manager, Level E

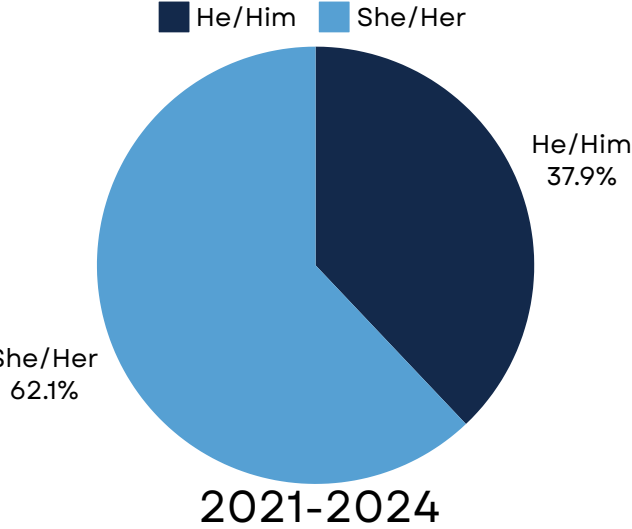
Grant Awardee Composition Metrics

Gender

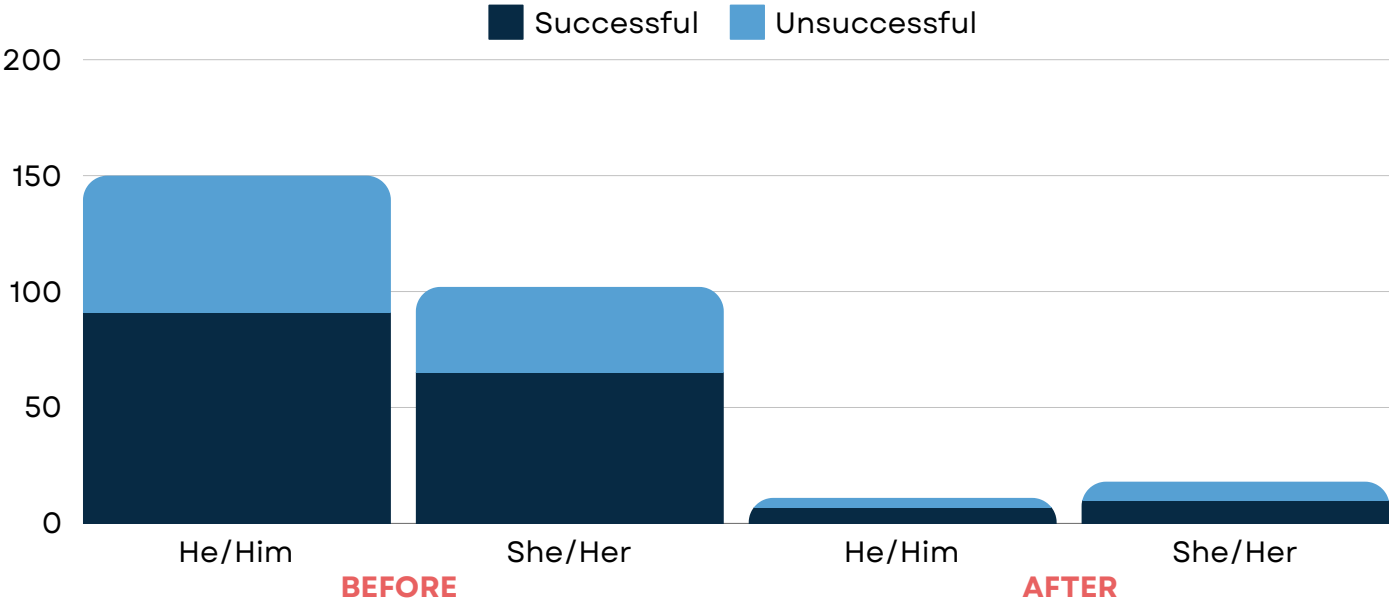
PharmAlliance Grant Applicants
BEFORE Community Guidelines
Release



PharmAlliance Grant Applicants
AFTER Community Guidelines
Release



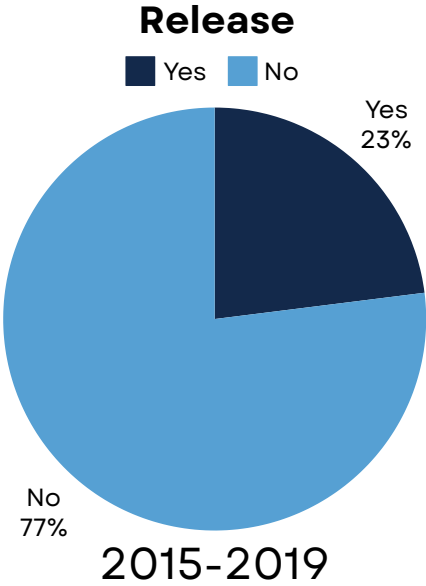
PharmAlliance Grant Applicants Before and After
Community Guidelines Release



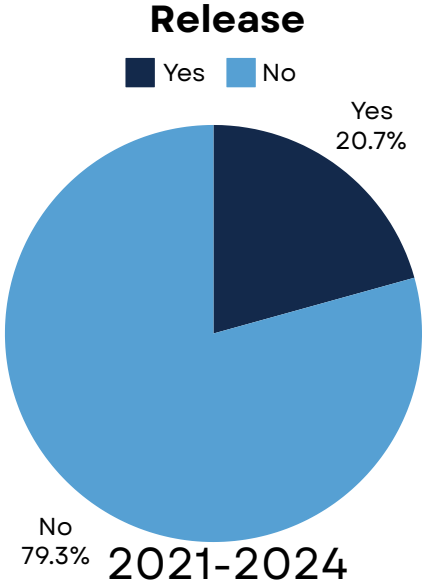
Grant Awardee Composition Metrics

Person of Color

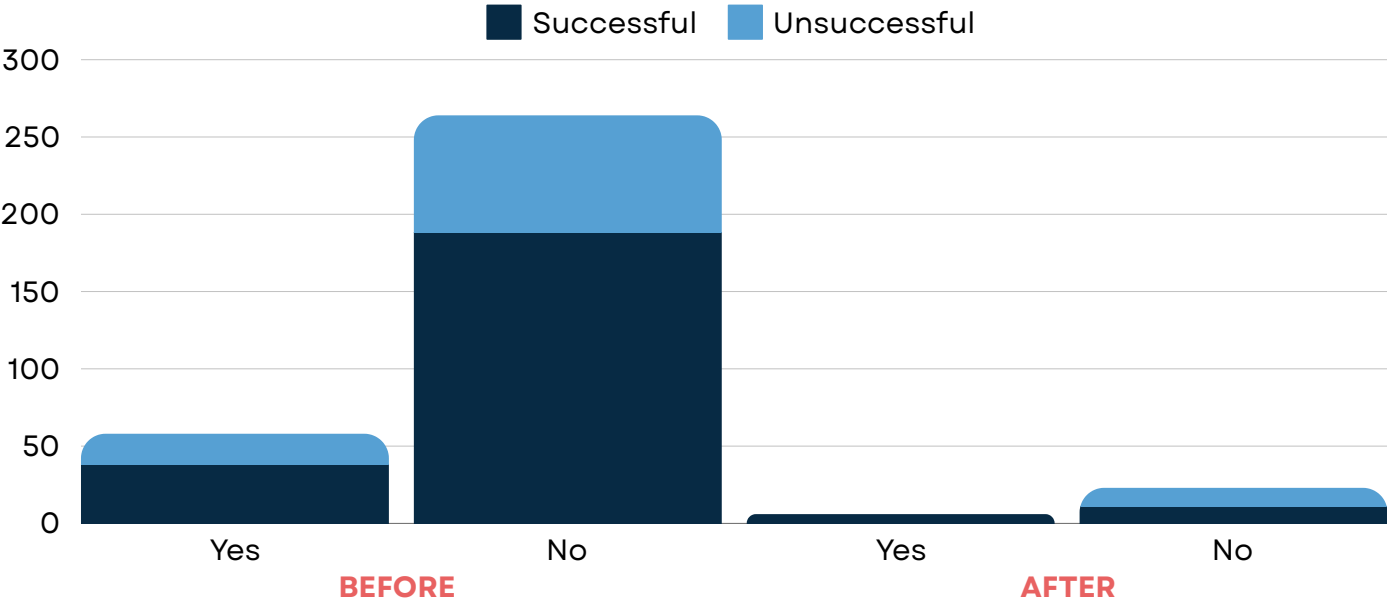
PharmAlliance Grant Applicants
BEFORE Community Guidelines Release



PharmAlliance Grant Applicants
AFTER Community Guidelines Release



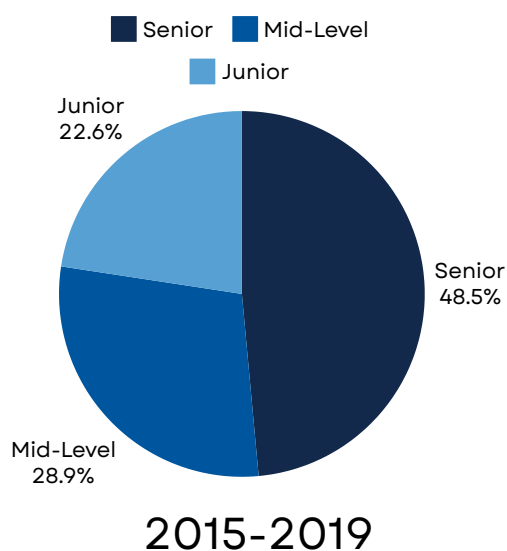
PharmAlliance Grant Applicants Before and After
Community Guidelines Release



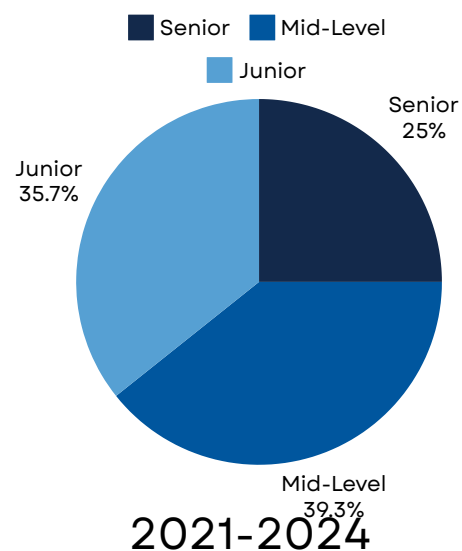
Grant Awardee Composition Metrics

Academic Rank

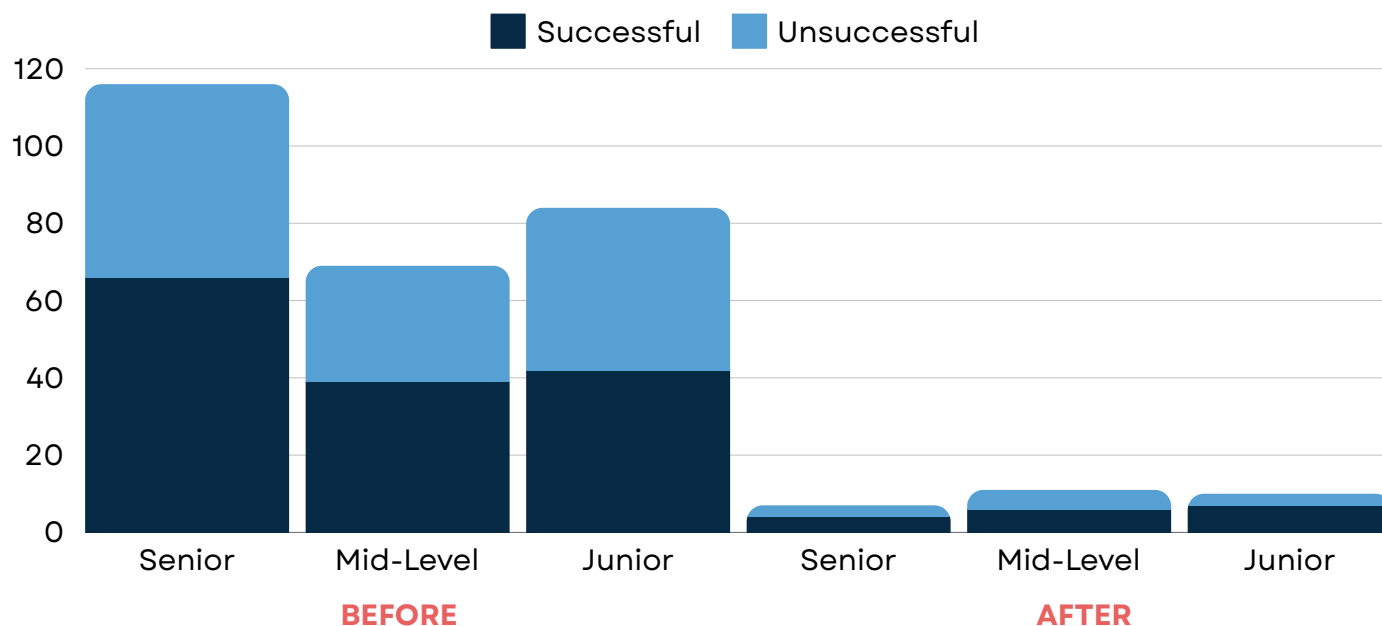
PharmAlliance Grant Applicants
BEFORE Community Guidelines
Release



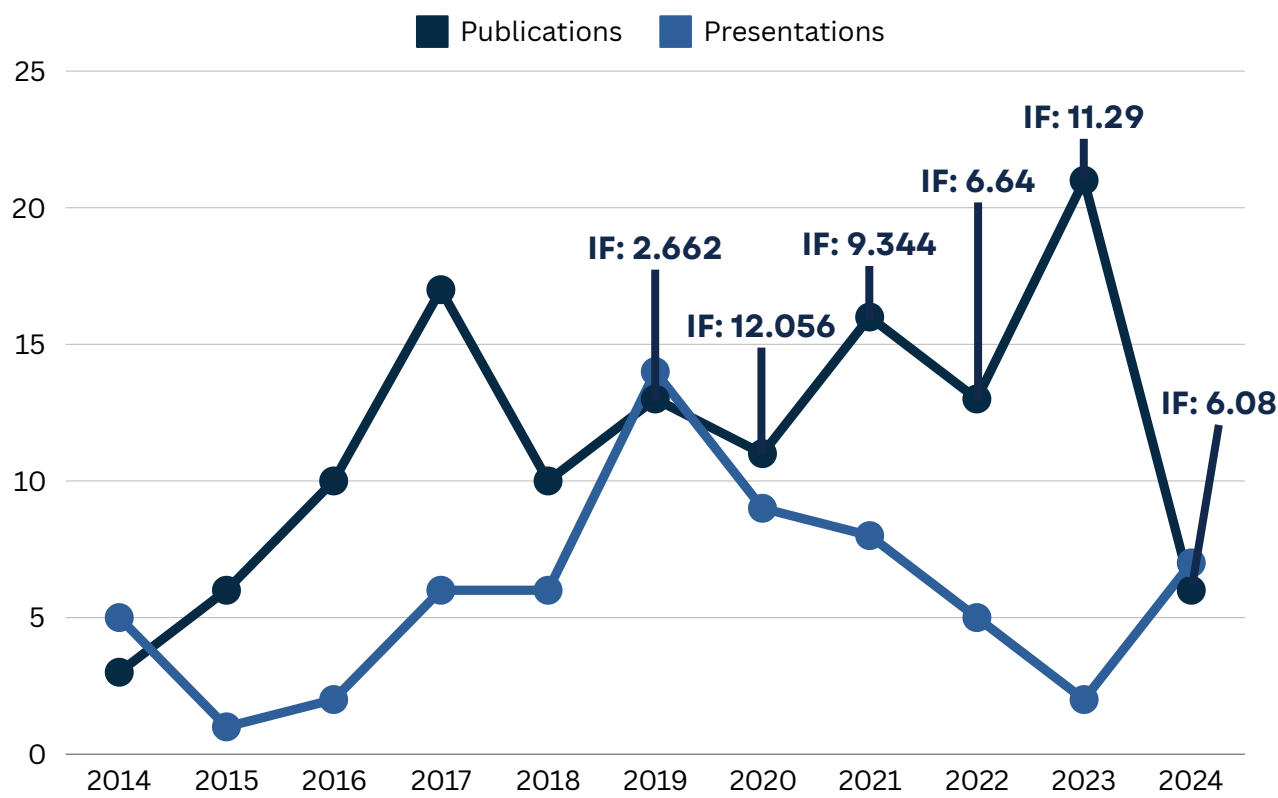
PharmAlliance Grant Applicants
AFTER Community Guidelines
Release



PharmAlliance Grant Applicants Before and After
Community Guidelines Release



Research Outputs





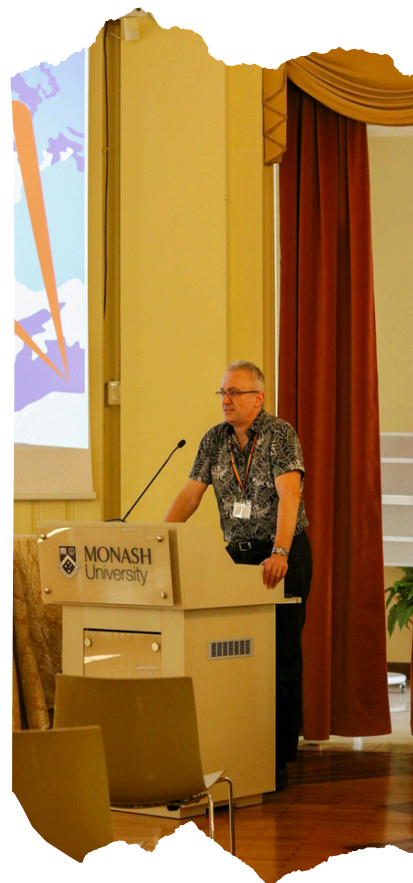
2024 Publications

1. Bonate PL, Barrett JS, Ait-Oudhia S, et al. Correction to: Training the next generation of pharmacometric modelers: a multisector perspective. *J Pharmacokinet Pharmacodyn*. 2024;51(1):89.
2. Guilding C, White PJ, Cunningham M, et al. Defining and unpacking the core concepts of pharmacology: A global initiative [published correction appears in *Br J Pharmacol*. 2024 Apr;181(7):1150. doi: 10.1111/bph.16324]. *Br J Pharmacol*. 2024;181(3):375-392
3. Hussein M, Sun Z, Hawkey J, et al. High-level nitrofurantoin resistance in a clinical isolate of *Klebsiella pneumoniae*: a comparative genomics and metabolomics analysis. *mSystems*. 2024;9(1):e0097223.
4. Nang SC, Lu J, Yu HH, et al. Phage resistance in *Klebsiella pneumoniae* and bidirectional effects impacting antibiotic susceptibility. *Clin Microbiol Infect*. 2024;30(6):787-794.
5. Servais L, Day JW, De Vivo DC, et al. Real-World Outcomes in Patients with Spinal Muscular Atrophy Treated with Onasemnogene Apeparvovec Monotherapy: Findings from the RESTORE Registry. *J Neuromuscul Dis*. 2024;11(2):425-442.
6. Bonate PL, Barrett JS, Ait-Oudhia S, et al. Training the next generation of pharmacometric modelers: a multisector perspective [published correction appears in *J Pharmacokinet Pharmacodyn*. 2024 Feb;51(1):89. doi: 10.1007/s10928-023-09885-5]. *J Pharmacokinet Pharmacodyn*. 2024;51(1):5-31.



2023 Publications

1. White PJ, Guilding C, Angelo T, et al. Identifying the core concepts of pharmacology education: A global initiative. *British J Pharmacology*. 2023;180(9):1197-1209.
2. Wells C, Liang Y, Pulliam TL, et al. Sgc-camkk2-1: a chemical probe for camkk2. *Cells*. 2023;12(2):287.
3. Ackloo S, Antolin AA, Bartolome JM, et al. Target 2035 – an update on private sector contributions. *RSC Med Chem*. 2023;14(6):1002-1011.
4. McLaughlin JE, Angelo TA, White PJ. Validating criteria for identifying core concepts using many-facet rasch measurement. *Front Educ*. 2023;8.
5. Hanafin PO, Abdul Rahim N, Sharma R, et al. Proof-of-concept for incorporating mechanistic insights from multi-omics analyses of polymyxin B in combination with chloramphenicol against *Klebsiella pneumoniae*. *CPT Pharmacom & Syst Pharma*. 2023;12(3):387-400.
6. Lu J, Zhu Y, Parkinson HC, et al. Transcriptomic mapping of neurotoxicity pathways in the rat brain in response to intraventricular polymyxin b. *Mol Neurobiol*. 2023;60(3):1317-1330.
7. Hanafin PO, Kwa A., Zavascki A.P., et al. A population pharmacokinetic model of polymyxin B based on prospective clinical data to inform dosing in hospitalized patients. *Clinical Microbiology and Infection*. 2023;29(9):1174-1181.
8. Koh AJJ, Thombare V., Hussein M., et al. Bifunctional antibiotic hybrids: A review of clinical candidates. *Front Pharmacol*. 2023;14:1158152.
9. Negoita F, Addinsall AB, Hellberg K, et al. CaMKK2 is not involved in contraction-stimulated AMPK activation and glucose uptake in skeletal muscle. *Mol Metab*. 2023;75:101761.
10. Burke RE, Pelcher L, Tjader A, et al. Central Nervous System-Active Prescriptions in Older Veterans: Trends in Prevalence, Prescribers, and High-risk Populations. *J Gen Intern Med*. 2023;38(16):3509-3516.
11. Proud CM, Mercuri E, Finkel RS, et al. Combination disease-modifying treatment in spinal muscular atrophy: A proposed classification. *Ann Clin Transl Neurol*. 2023;10(11):2155-2160.
12. Hussein M, Jasim R, Gocol H, et al. Comparative Proteomics of Outer Membrane Vesicles from Polymyxin-Susceptible and Extremely Drug-Resistant *Klebsiella pneumoniae*. *mSphere*. 2023;8(1):e0053722.
13. Guilding C, Kelly-Laubscher R, Netere A, et al. Developing an international concept-based curriculum for pharmacology education: The promise of core concepts and concept inventories. *Br J Clin Pharmacol*. Published online December 13, 2023.
14. International League Against Epilepsy Consortium on Complex Epilepsies. GWAS meta-analysis of over 29,000 people with epilepsy identifies 26 risk loci and subtype-specific genetic architecture. *Nat Genet*. 2023;55(9):1471-1482.
15. Zerbato JM, Avihingsanon A, Singh KP, et al. HIV DNA persists in hepatocytes in people with HIV-hepatitis B co-infection on antiretroviral therapy. *EBioMedicine*. 2023;87:104391.
16. Hussein M, Allobawi R, Zhao J, et al. Integrated Transcriptomic and Metabolomic Mapping Reveals the Mechanism of Action of Ceftazidime/Avibactam against Pan-Drug-Resistant *Klebsiella pneumoniae*. *ACS Infect Dis*. 2023;9(12):2409-2422.
17. Zhao J, Zhu Y, Han ML, et al. Model-informed dose optimisation of polymyxin-rifampicin combination therapy against multidrug-resistant *Acinetobacter baumannii*. *Int J Antimicrob Agents*. 2023;62(3):106902.
18. Klug DM, Tse EG, Silva DG, et al. Open Source Antibiotics: Simple Diarylimidazoles Are Potent against Methicillin-Resistant *Staphylococcus aureus*. *ACS Infect Dis*. 2023;9(12):2423-2435.
19. McCormack S, Cottrell ML. Optimising oral PrEP while awaiting long-acting cabotegravir. *Lancet HIV*. 2023;10(11):e694-e695.
20. Nang SC, Lin YW, Petrovic Fabijan A, et al. Pharmacokinetics/pharmacodynamics of phage therapy: a major hurdle to clinical translation. *Clin Microbiol Infect*. 2023;29(6):702-709.
21. Klug DM, Tse EG, Silva DG, et al. Open Source Antibiotics: Simple Diarylimidazoles Are Potent against Methicillin-Resistant *Staphylococcus aureus*. *ACS Infect Dis*. 2023;9(12):2423-2435.





2024 Anticipated Presentations & Posters

1. Kathryn M, Jacqueline M, Walker S, Galbraith K, Kirkpatrick C. Research-Ready Pharmacists: The Development of Research Entrustable Professional Activities (EPAs) for Practicing Pharmacists. Anticipated to be presented at the American Association of Colleges of Pharmacy Annual Meeting. July 2024. Boston, MA.
2. Rhoney D, Galbraith K, re:Global World Cafe on Competence-Based Education. Anticipated to be presented at the American Association of Colleges of Pharmacy Annual Meeting. July 2024. Boston, MA.
3. Brown L, Mak V, Kebodeaux C. Beyond the Script: AI Innovations in Pharmacy Education Assessments. Anticipated to be presented at the American Association of Colleges of Pharmacy Annual Meeting. July 2024. Boston, MA.
4. Goordeen D. Multimorbidity and Medication Overload in People Living with Dementia. PharmAlliance Week 2024. June 2024. Chapel Hill, NC.
5. Goordeen D. Do Type 2 Diabetes Clinical Practice Guidelines Consider Older Adults, Those Living with Dementia, Frailty or Receiving End of Life Care? A Systematic Review of the Western Pacific. Anticipated to be presented as a poster presentation at the 2nd International Conference on Deprescribing (ICOD), Nantes France (September 2024)
6. Ryan Woodring, Mathilde Ullrich - Development of controlled release immunostimulatory biomaterials for cancer therapy. PharmAlliance Week 2024. June 2024. Chapel Hill, NC.
7. Woodring R. Tuning an Immune Response with Ace-DEX Scaffolds in Post-Operational Glioblastoma. Anticipated to be presented at 2024 Drug Carriers in Medicine and Biology, Gordon Research Seminar & Conference, University of Southern Maine, August 3-9, 2024





PharmAlliance Research Clusters for Doctoral Training (PARCDT) Funding Scheme

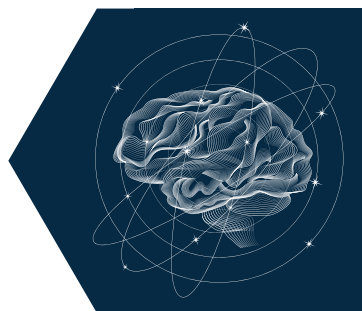


PARCDT 2021 GRANTS

3 APPLICATIONS - 1 GRANT AWARDED

- Multimorbidity and medication overload in people living with dementia: building capacity in international multi-database medication safety and effectiveness research

WALLIS LAU (UCL). PROF. SIMON BELL (MONASH), DR. JOSHUA NIZNIK (UNC)



PARCDT 2022 GRANTS

4 APPLICATIONS - 2 GRANTS AWARDED

- Enhancing translatability of preclinical drug discovery models for dementia and associated neuropsychiatric symptoms

AFFA ALI (UCL) AND KAREN GREGORY (MONASH)

- Combination immunotherapies for glioblastoma

KAROLINA DZIEMIDOWICZ (UCL), KRISTY AINSLIE (UNC), AND KRISTIAN KEMPE (MONASH)



PARCDT 2023 GRANTS

2 APPLICATIONS - 1 GRANT AWARDED

- Addressing Challenges of Affinity, stability, and Delivery in Aptamer-based therapies for lung-specific diseases

DR. RIHE LIU (UNC), DR. CHRISTOPHER SERPELL (UCL), AND DR. JIE TANG (MONASH)



Graduate Research E-Symposium 2024

BY THE NUMBERS

28 PRESENTERS TOTAL - 14 MONASH, 6 UCL, 8 UNC

PREVIOUS YEARS:

2022: 23 PRESENTERS TOTAL - 11 MONASH, 6 UCL, 6 UNC

2021: 17 PRESENTERS TOTAL - 12 MONASH, 3 UCL, 2 UNC

WINNERS OF GRADUATE RESEARCH E-SYMPOSIUM 2024

- 1st place: Nicole Lukesh (UNC) for her talk entitled: Acetalated Dextran Microparticle-Associated B Cells: The Dynamic Duo Against Multiple Sclerosis
- 2nd place: Jackson Kos (Monash) for his talk entitled: Exploring Sex Differences of Metabotropic Glutamate Receptor 5 Negative Allosteric Modulation using Single-Sex Primary Neuronal Cultures
- 3rd place: Michaela Kaoullas (Monash) for her talk entitled: Structural insights into positive allosteric modulation at the M4 muscarinic acetylcholine receptor
- Honorable mention: the highest scoring UCL participant was Peter Velickovic for his talk entitled: Optimising beta-lactam containing antibiotic combination therapy for the treatment of Buruli ulcer



Graduate Research E-Symposium 2024

| Day 1: 1 May 2024 | |
|-------------------------------|---|
| Speaker | Topic |
| Orlagh Feeney | Welcome and intro |
| Pranav Pankaj Runwal (Monash) | Using nanobodies to facilitate drug delivery across the blood-brain barrier in gliomas |
| Dan Zhao (Monash) | Designing a pH-responsive nano-drug delivery system to target lymph-nodes to enhance cancer therapy |
| Sophie Mendell (UNC) | Interstitial Controlled Release of Resiquimod for Glioblastoma Treatment |
| Bethany Latham (UNC) | Investigating CYP3A and CYP2C8 Phenotypes in a Diverse Cohort of Hepatocyte Donors |
| Annie Roys (Monash) | Combination of redox modifiers with artemisinin results in increased parasite susceptibility to artemisinins |
| Nouf Alaboud (UCL) | Implementing an Electronic Screening Tool to Improve Antimicrobial Prescribing Decision-making for Paediatric Patients with Suspected Sepsis at an Academic Hospital in England: A Before and After Study |
| Peter Velickovic (UCL) | Optimising beta-lactam containing antibiotic combination therapy for the treatment of Buruli ulcer |
| George Tan (Monash) | Tree-based scan statistics to mine for drug repurposing signals |
| Kathryn Morbitzer | 10-min Break |
| Fuad Mahamud (UCL) | Characterisation of Dynamic Hairpin DNA Switches in E-coli. |
| Yinuo Wang (UCL) | Open Source Malaria: Potent Theinopyrimidine-based Sulfonamides with a Novel “Reaction Hijacking” Mechanism Against Plasmodium falciparum Asparagine tRNA Synthetase. |
| Raeanne Geffert (UNC) | Exploring interindividual variability in sulfamethoxazole metabolism in single-donor primary human hepatocytes |
| Mihir Upadhye (UNC) | Visualizing Sodium Taurocholate Cotransporting Polypeptide (NTCP) Activity and Localization using Optogenetic Tools |
| Meghan Ricciardi (UNC) | Role of an Intrinsically Disordered N-Terminus in Human Thymidylate Synthase |
| Kathryn Morbitzer | Closing |

Graduate Research E-Symposium 2024

| Day 2: 2 May 2024 | |
|------------------------------|--|
| Speaker | Topic |
| Michelle Halls | Welcome and intro |
| Dina Abushanab (Monash) | The Productivity Burden of Cardiovascular Disease and Improved Risk Factor Control Among Australians with Type 2 Diabetes: A 10-Year Dynamic Analysis |
| Miriam Leung (Monash) | Association between Gabapentinoids and the Risk of Hip Fractures: A Population-based Case-crossover and Case-case-time-control Study |
| Boqun Liu (Monash) | Probing Functionally Selective Agonists of the Dopamine D2 Receptor and Potent Serotonin 5-HT2A and Dopamine D2 Receptor Dual Ligands for the Treatment of Schizophrenia |
| Jasmin Li (Monash) | Single target-dual therapy at M4 muscarinic receptors for the treatment of schizophrenia |
| Michaela G Kaoullas (Monash) | Structural insights into positive allosteric modulation at the M4 muscarinic acetylcholine receptor |
| Jackson Kos (Monash) | Exploring Sex Differences of Metabotropic Glutamate Receptor 5 Negative Allosteric Modulation using Single-Sex Primary Neuronal Cultures |
| Chenyao Liu (UCL) | Population Pharmacokinetic of ketamine and norketamine in pediatric subjects during analgesedation |
| Andria So (UCL) | Investigating the effects of long-term use of alprazolam on GABAergic synapses and GABAA receptor expression and intracellular trafficking |
| Nicole Rose Lukesh (UNC) | Acetalated Dextran Microparticle-Associated B Cells: The Dynamic Duo Against Multiple Sclerosis |
| Ethan Kreutzer | 10-min Break |
| Viktor Prypoten (Monash) | Prediction of peptide binding affinity through Parallel Cascade Selection Molecular Dynamics (PaCS-MD) |
| Vivien Doan (UNC) | Identification of a dominant negative inhibitor for heparan sulfate 3-O-sulfotransferase isoform 1 |
| Shin Liao (Monash) | Deprescribing Opportunities for Frail Residents of Nursing Homes: A Multicenter Study in Australia, China, Japan, and Spain |
| Monica Jung (Monash) | Predictors of persistent opioid use in Australian primary care |
| Ami Lailaturrahmi (Monash) | Teaching clinical skills online in pharmacy education: a scoping review |
| Lex Ehlert (UNC) | Adverse Drug Reactions and Medication Burden: Creating a Better Measure |
| Ethan Kreutzer | Closing |

Global Leaders in Development (GLIDE)

2.0 Competition

23/24 Theme: Sustainability in Pharmacy

(FIP 21st goal) Self-learning modules created by PA + competition

GLIDE 2.0:

A GLOBAL LEADERSHIP MODULE ACROSS
THREE INTERNATIONAL PHARMACY SCHOOLS

Interventions title by the teams:

1. "Promote **medications return at pharmacy** and appropriate **classification of medicine waste** to reduce the environmental harm of pharmaceutical waste"
2. "**Accessible Automated Recycling Machine**"
3. "**Plants and Greenery** in Community Pharmacies"
4. "An **integrated digital platform** tracks drug life cycles, facilitating return of unused drugs"
5. "Pharmacy as an **amber bottle collection point** for re-use (winning entry)"



WINNERS OF GLIDE 2.0

- **1st place: "Pharmacy as an amber bottle collection point for re-use" - created by Yujuong "Martina" Juong, Rida Karim, Siyuan "Irving" Zhang, Edric Chia, Philip Kmiecik**



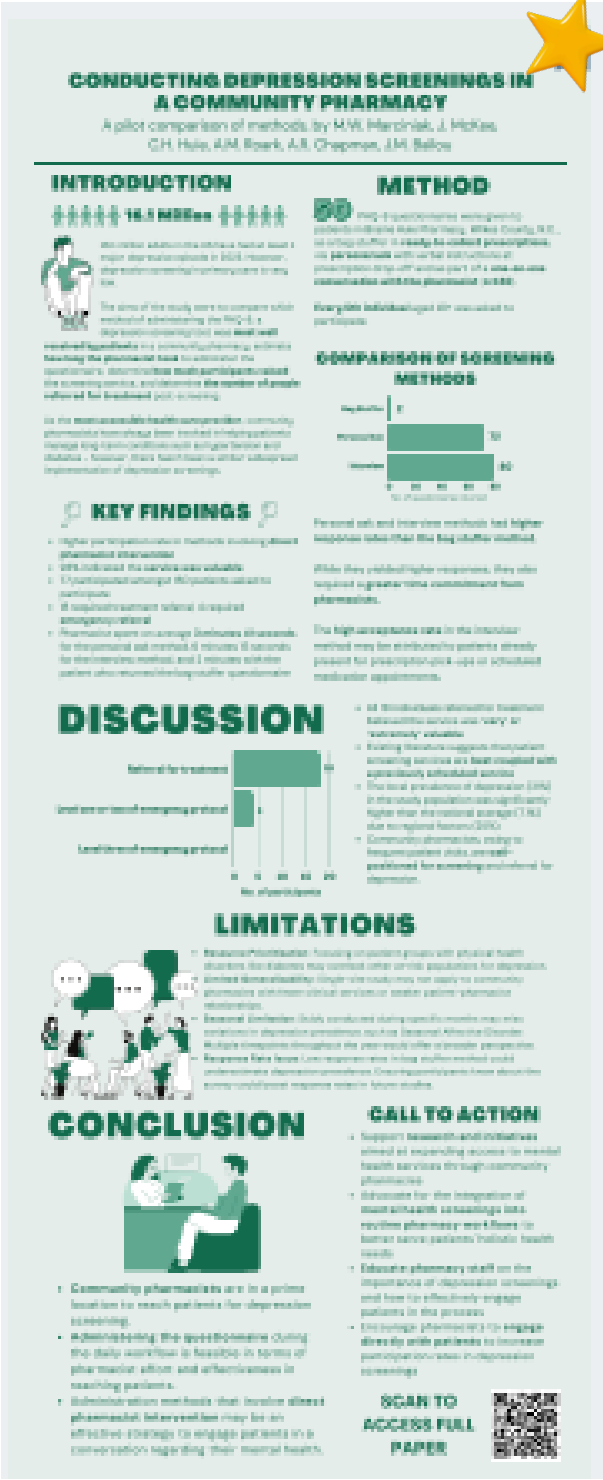
Watch the GLIDE 2.0
Winning Video Here

INTERNATIONAL CASE COMPETITION (ICC) - INFOGRAPHICS WINNERS 2024

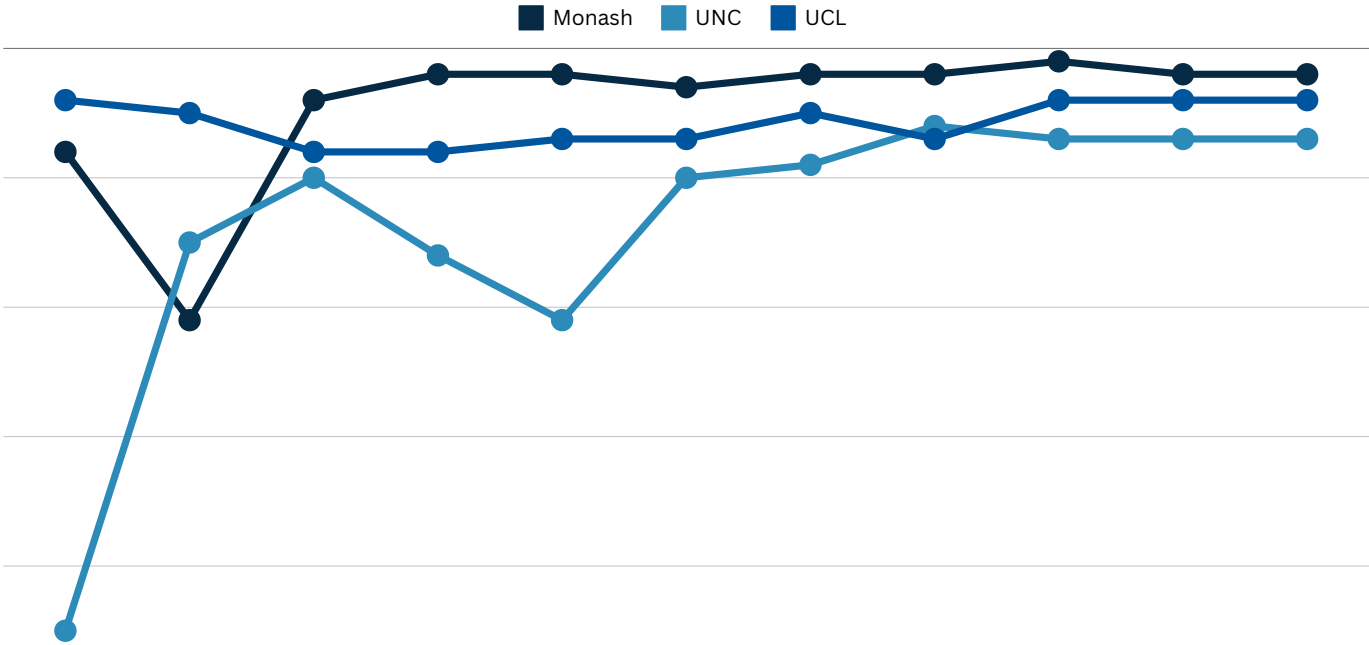
Conducting depression screenings in a community pharmacy

CREATED BY:

- Zaynab Mir (UCL)
- Onyinyechukwu Ezeoranu (UNC)
- Fatma Hussein (UCL)
- Lamees Ali (UCL)



QS World University Rankings: Pharmacy & Pharmacology

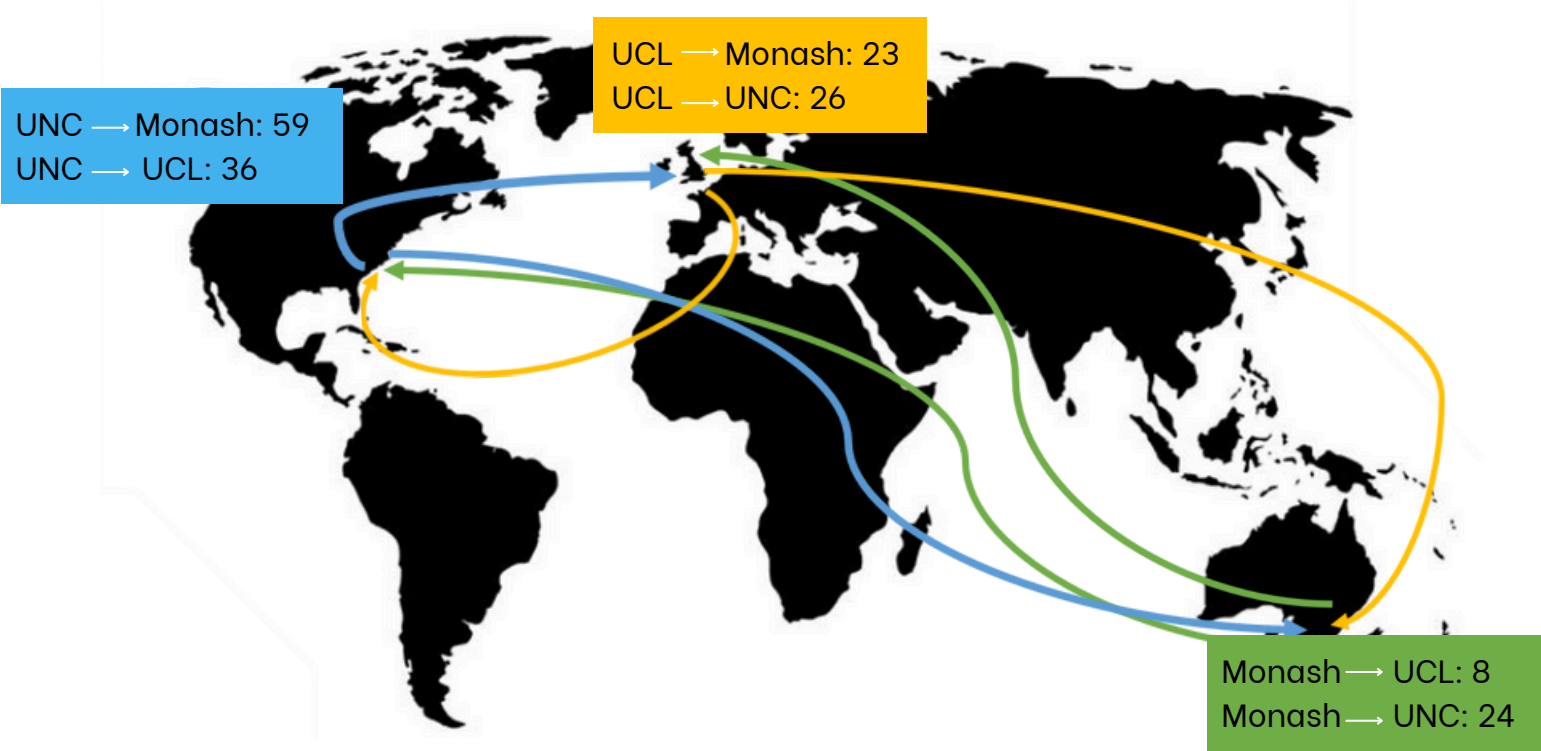


| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| Monash | 8 | 21 | 4 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 |
| UNC | 45 | 15 | 10 | 16 | 21 | 10 | 9 | 6 | 7 | 7 | 7 |
| UCL | 4 | 5 | 8 | 8 | 7 | 7 | 5 | 7 | 4 | 4 | 4 |



Student Exchanges

BY THE NUMBERS:
STUDENT EXCHANGES TO DATE - TOTAL = 176*



*Data includes PharmD, MPharm, and graduate students



Student Exchanges

During their global rotation at University College London (UCL), UNC students conducted research projects focusing on alert fatigue in EPIC and contributed to breast cancer studies using large NHS datasets. They gained hands-on experience in oncology patient care at University College Hospital, shadowed the nuclear department, and engaged with various healthcare professionals. They also explored London's culture and landmarks, including Stonehenge, West Ham matches, and Camden Market, while fostering connections with coworkers over coffee breaks.

At The Alfred Hospital in Melbourne, Australia, UNC students learned about the Australian healthcare system, gaining exposure to lung transplant and Cystic Fibrosis patients in both inpatient and outpatient settings in the respiratory ward. They also explored different regions, tried indigenous Australian food and drink, and reflected on healthcare practices that could benefit the US.

Monash students at UNC collaborated on research projects with Drs. Jacqui McLaughlin and Kathryn Morbitzer in CIPhER focusing on core concepts for education in pharmacy administration & leadership. With Dr. Caroline Sasser, Monash students completed research focused on infographics as communication tools in pharmacy and pharmaceutical sciences. In their free time, these students engaged in the true Carolina experience through School and sporting events as well as exploring various states in the US.





Links to Resources

[PharmAlliance Website](#)

[PharmAlliance X/Twitter](#)



[PharmAlliance Priorities & DEI Statement](#)

[PharmAlliance Passport Newsletters](#)

Report compiled by Sophia Mortha, PharmD, Caroline Sasser, PharmD, BCPS, Gillian Zavaglia, UNC PharmD Candidate, Xiaojing Yin, UNC PharmD Candidate

