

TRINH PHAN-CANH, Pharm, MSc. BIT.
PhD Student at Medical University of Vienna

Date of Birth: 09/09/1992

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EDUCATION

- 2021 - present **PhD student in Medicine (Field of Immunology)**
 Medical University of Vienna
Project: *Candida auris*: virulence factors, morphogenesis and drug resistance of a sticky human fungal pathogen. **Supervisor:** Prof. Dr. Karl Kuchler
- 9/2017 - 9/2019 **Master's Degree of Pharmacy (Field: Pharmaceutical technology and Pharmaceutics)**
 University of Medicine and Pharmacy at Ho Chi Minh City
 GPA: 8.39/10, Thesis: 9.95/10, Ranking: 1/30
- 11/2015 - 2/2018 **Bachelor of Information Technology (Distance education)**
 Vietnam National University - Ho Chi Minh City, University of Information Technology (VNU-HCM, UIT)
 GPA: 8.14/10, Certificate of Excellent awarded by Dean of VNU-HCM, UIT
- 9/2010 - 9/2015 **University of Medicine and Pharmacy at Ho Chi Minh City**
 Degree of Pharmacy, GPA: 7.36/10, Thesis: 10/10

WORKING AND RESEARCH EXPERIENCES

- 1/2024 - present **Project Lead**
 Rom1 as a fungal sensing factor during skin colonization of the human fungal pathogen *Candida auris*
- 1/2021 - 12/2023 **Research Assistant**
 Max Perutz Labs – Vienna BioCenter - University of Veterinary Medicine Vienna
- 3/2016 - 1/2021 **Researcher and Lecturer**
Faculty of Pharmacy, University of Medicine and Pharmacy at Ho Chi Minh City
 - **Teaching** Microbiology, Molecular biology, and pharmaceutical biotechnology for pharmacy students. Designing 4 laboratory courses for exchange students from Japan (2019), Korea (2018 and 2019), and Thailand (2019). Participating development of 9 e-learning courses of Microbiology and Parasitology Department. Constructing “Research skill course” (in 3 days) for pharmacy students at UMP from 2016 to 2020 (~70 students every year)
 - **Research:** doing research in **antimicrobial drug screening** from herbs, lichen, Actinobacteria, Myxobacteria, and **epidemiology of Gram-negative bacteria and fungal infection**
 - **Management** of Mycology Laboratory, Department of Microbiology and Parasitology
 - **Supervising** pharmacy students to conduct diploma thesis and undergraduate summer projects in Microbiology and Parasitology Department, which obtained 3 prizes in student research competitions hold by the UMP's Youth Union and the Ho Chi Minh City Youth Union
- 5/2019-12/2020 **Academic Affairs Specialist (Concurrent position)**
Faculty of Pharmacy, University of Medicine and Pharmacy at Ho Chi Minh City
 - Administration of E-learning Platform
 - Involving in Educational Innovation Team, Course Coordination for Continuing Pharmacy Education, and Quality Assurance Activity of the University
- 10/2015-1/2017 **thongtinhuoc.com.vn – Vietnamese Drug Interactions Checker**
 Administrated the website, introduced and compiled usage manual of the system for healthcare professional, review drug information related to antibiotics and probiotics

PROFESSIONAL ACTIVITIES

- 2021-2022 Founder and coordinator of Seminar series: “PhD Talk”, a scientific seminar for Vietnamese students in Austria. <https://phdtalk.github.io>
- 2020 Member in Organizing committees of “Pharmacy Students’ Science Conference - PHARMASciCo” for pharmacy students in Vietnam
- 2020 Member in Organizing committees of Continuing Medical Education (CME) “SARS-CoV-2: virological characteristics and mechanism of action of drugs undergoing clinical trials” for 150 pharmacists in Vietnam
- 2017-2019 Member in Organizing committees of UMP Annual Technical Science Conference (Pharmacy Section)
- 2018 Member in Organizing committees of Youth Science and Technology of Vietnam Universities and Colleges of Medicine and Pharmacy - The XIX

COMMUNITY WORK

Member of executive committee of Vietnamese Youth and Student Federation in Europe (2021-present); President of Vietnamese Student Association in Austria (2022-present); co-founder and president of Pharmacy Skill Club (2011-2014); mentor of Pharmacy Academic Club (2017-2021); the secretary of the Youth Union at the Faculty of Pharmacy, UMP; coordinate extracurricular activities of pharmacy students (2500 members; 2019-2021)

MENTORING EXPERIENCE

- 12/2022-6/2023 **Master thesis - Semiye Volkan**
- 9-10/2022 **Diploma thesis - Walter Katja and Prettnner Maja**
Mentored two high school students for a diploma thesis, who later received an **ISTA award** for their thesis from the Institute of Science and Technology Austria
- 5-6/2022 **Internship (Wahlbeispiel) - Andrej Knarr**
- 11/2019 **Consolation prize in Eureka Scientific Competition 21st**
The most reliable and biggest student scientific competition in Vietnam
Guided a team to conduct a research in extraction and antimicrobial assay of compounds from tropical lichen. Trained experimental design, scientific reading, writing, and presentation skill

HONORS AND AWARDS

- 2024 **The Bernd Rode Award from ASEAN-European Academic University Network**
The Bernd Rode Award is granted by the ASEAN-European Academic University Network (ASEA-UNINET) to outstanding scientific and higher education collaborations between its Austrian and South-East Asian or Pakistani member universities.
- 2023-2024 **ESCMID Research Grant from the European Society of Clinical Microbiology and Infectious Diseases**
Project: Rom1 as a fungal sensing factor during skin colonization of the human fungal pathogen *Candida auris* – **Role:** Co-PI – [Link](#)
- 2023 **Meeting Attendance Grants – Federation of European Microbiological Societies**
- 2021-2023 **Ernst Mach Grant – ASEA-UNINET for a PhD program in Austria**
- 2019 **Pilot grant from The Training and Research Academic Collaboration (TRAC) – Sweden-Vietnam**
Project: “Damar batu” essential oil: *In vitro* antimicrobial activities and perspectives
- 2017-2020 **Research grant from University of Medicine and Pharmacy at Ho Chi Minh City**
- 2015 **Homtamin Scholarship**
Awarded by Korea United Pharm Company for outstanding students in academy and social activities
- 2014 **Daewoong Scholarship from Daewoong Pharmaceutical Company**

Awarded by Daewoong Pharmaceutical Company for outstanding students in academy

2012 **Champion - Scientific Research Contest - Seeking Elixir 3rd**

Won the champion in the student scientific research titled "Investigating the situation of antibiotic use and appropriate antibiotic use solutions in Ho Chi Minh City"

MEMBERSHIP OF PROFESSIONAL SOCIETIES

2023-present	Member of Microbiology Society
2022-present	Member of European Society of Clinical Microbiology and Infectious Diseases
2019-present	Outreach Member of American Society for Microbiology
2021-present	Member of Austrian Association of Molecular Life Sciences and Biotechnology, FEMS
2017-2020	Member of Ho Chi Minh City Pharmaceutical Association: Ho Chi Minh, Vietnam

PUBLICATIONS

1. Tamires Bitencourt, Filomena Nogueira, Sabrina Jenull, **Phan-Canh Trinh**, Michael Tscherner, Karl Kuchler & Thomas Lion. Integrated multi-omics identifies interaction pathways between *A. fumigatus* and *K. pneumoniae*. In submission.
2. Seiser, Saskia, Hossein Arzani, Tanya Ayub, **Trinh Phan-Canh**, Clement Staud, Christof Worda, Karl Kuchler, and Adelheid Elbe-Bürger. Native human and mouse skin infection models to study *Candida auris*-host interactions. *Microbes and Infection* (2023): 105234.
3. Sabrina Jenull, Raju Shivarathri, Irina Tsymala, Philipp Penninger, **Phan-Canh Trinh**, Filomena Nogueira, Manju Chauhan et al. Transcriptomics and Phenotyping Define Genetic Signatures Associated with Echinocandin Resistance in *Candida auris*. *mBio* (2022): e00799-22.
4. Raju Shivarathri, Manju Chauhan, Rounik Mazumdar, **Phan-Canh Trinh**, Wolfgang Reiter, Markus Hartl, Karl Kuchler & Neeraj Chauhan. (2022). A Proteomic Approach for the Quantification of Posttranslational Protein Lysine Acetylation in *Candida albicans*. In: Calderone, R. (eds) *Candida Species. Methods in Molecular Biology*, vol 2542. Humana, New York, NY.
5. **Phan-Canh Trinh***, et al. 2020. DPPH-scavenging and antimicrobial activities of Asteraceae medicinal plants on uropathogenic bacteria." *Evidence-Based Complementary and Alternative Medicine* (2020): 7807026. (*Corresponding author).
6. Nguyen Tu Anh, **Phan Canh Trinh**, Nguyen Minh Thai, Nguyen Thi Ngoc Yen, Ton Hoang Dieu, Tran Quoc Viet, and Nguyen Hieu. Building process for detecting *Candida* spp. by multiplex PCR methods. *Vietnam Medical Journal*. 521, no. 1 (2022).
7. Nguyen Tu Anh, Nguyen Minh Thai, Le Thi Thanh Thao, **Phan Canh Trinh**, Nguyen Thi Ngoc Yen, Nguyen Hieu, Tran Quoc Viet, and Ton Hoang Dieu. Comparison and evaluation of multiplex PCR technique process of the identification *Candida* spp. from patient samples. *Vietnam Medical Journal*. 521, no. 1 (2022).
8. **Phan-Canh Trinh**, et al. 2020. "Identification of *Acinetobacter baumannii* and detection of β - lactam antibiotic resistance genes in clinical samples by multiplex PCR." *bioRxiv*.
9. Tran Ngoc Chau, Phung Bich Tuyen, **Phan Canh Trinh**, et al. 2021. Synthesis and Anti-Staphylococcus aureus activity of 2-pyrazoline and 2-isoxazoline derivatives *Ho Chi Minh City Journal of Medicine* 25 (2): 48 – 55. <https://tinyurl.com/4dmhcs48>. (PCT designed and performed antimicrobial assay).
10. **Phan Canh Trinh** and Duong Thi Thanh Mai. 2019. "Damar Batu essential oil: *In vitro* antimicrobial activities and perspectives." *Research Report to The Training and Research Academic Collaboration (TRAC) – Sweden-Vietnam*. <https://tinyurl.com/y3qjo3ar>.

11. **Phan Canh Trinh**, et al. 2019. “*Dirinaria applanata*: morphology, chemical composition and antimicrobial activity.” *Ho Chi Minh City Journal of Medicine* 23 (2): 47–54. <https://tinyurl.com/y99zn9l7>.
12. Nguyen Xuan Loc, et al. and **Phan Canh Trinh** *. 2019. “Isolation and screening antimicrobial activity of soil Actinobacteria.” *Pharmaceutical Journal* 59 (524): 45–49. <https://tinyurl.com/ya66pr4z>. (*Corresponding author).
13. Nguyen Thi Ngoc Yen, **Phan Canh Trinh**, et al. 2019. “*In vitro* susceptibility testing of Dermatophytes isolated from Hospital of Dermatology in Ho Chi Minh City to ketoconazole and terbinafine.” *Ho Chi Minh City Journal of Medicine* 23 (3): 55–60. <http://tinyurl.com/rqxzg9m>. (PCT and NTNY designed research experiments and wrote the manuscript; PCT analysed data and gave discussion).
14. Vu Thanh Thao, **Phan Canh Trinh**, et al. 2018. “Study on fermentation conditions for *Bacillus subtilis* KP3 spores production.” *Ho Chi Minh City Journal of Medicine* 22 (1): 453–59. <https://tinyurl.com/y8uebyma>. (PCT and VTT designed research experiments and analysed data; PCT performed experiments).
15. Nguyen Huu Dai, Ly Nguyen Hai Du, **Phan Canh Trinh**, et al. 2020. “Synthesis and Evaluation of Antibacterial and Antifungal Activities of Some Hydrazone Derivatives of Chalcones.” *Ho Chi Minh City Journal of Medicine* 24 (2): 207–11. <https://tinyurl.com/yctbfjuc>. (PCT designed and performed antimicrobial assay).

CONFERENCE PRESENTATIONS

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| August 2022 | The 1st Scientific Seminar of Young Vietnamese Intellectuals (Oral) |
| June 2022 | 17th YSA PhD Symposium 2022, Medical University of Vienna (Poster) |
| May 2022 | FEBS Advanced Lecture Course HFP2022: Molecular mechanisms of host-pathogen interactions and virulence in human fungal pathogens (Poster) |
| November 2022 | VBC Symposium 2022, Vienna Biocenter Campus, Austria (Poster) |
| January 2023 | TissueHome Final Symposium, Immune Control of Tissue Homeostasis (Oral) |
| May 2023 | Candida and Candidiasis 2023, Microbiology Society, Montreal – Canada (Poster) |

PROFESSIONAL SKILLS

Molecular microbiology techniques, cloning, cell culture, flow cytometry, mouse handling, PCR, RNA-seq, proteomics, bioinformatic analysis (WGS, RNA seq, proteomics, differentially expression analysis). Data analysis and visualization with R; Basic skill in bash and Python; experimental visualization with Adobe Photoshop and Adobe Illustrator; GraphPad Prism; excellent in Microsoft Office, Endnote. Highly skilled with different operating systems: Unix (Ubuntu and MacOS), Window.

REFERENCES

Karl Kuchler, PhD, Professor in Molecular Biology,
Department of Medical Biochemistry, Medical University of Vienna

Adelheid Elbe-Bürger, PhD, Ass. Prof. in Immunology & Immunodermatology,
Department of Dermatology, Medical University of Vienna

Neeraj Chauhan, PhD, Ass. Prof. of Microbiology
Hackensack Meridian Center for Discovery and Innovation in New Jersey, USA