Paul Henriot

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EDUCATION

Conservatoire national des arts et métiers - HESAM Université (Paris, France)
2023 : *PhD in Public Health*

Université Rennes 1 - Agrocampus Ouest (Rennes, France)
2019 : *Master's degree in ecological modelling*

Université Paris II, Panthéon-Assas (Paris, France)
2017 : *Bachelor's degree in economic analysis*

RESEARCH EXPERIENCE

September 2020 - December 2023 — **PhD in Public Health - Conservatoire national des arts et métiers (MESuRS Laboratory, Paris, France)**
Title : *Modelling HCV transmission in hospital settings : from assessment to control, an application to the Egyptian context.*

The three main objectives of this thesis were :
i. *To conduct a meta-analysis of the per-procedure risk of HCV infection in hospitalised patients ;*
ii. *To conduct a risk assessment to identify patient profiles at risk of HCV infection and hotspots of HCV transmission in an Egyptian hospital ; and*
iii. *To develop an agent-based model of bloodborne pathogen transmission in hospitals that can be applied in different contexts.*

I was the co-representative of PhD students on the Cnam Scientific Committee.

September 2019 - September 2020 — **Modelling engineer, Inserm - Institut Pasteur (EMEA Unit, Paris, France)**
I built a mechanistic model for the persistence of antibiotic resistance genes in anthropised aquatic environments and estimated its parameters using MCMC techniques.

January-June 2019 — **Research intern in epidemiological modelling, Conservatoire national des arts et métiers (MESuRS Laboratory, Paris, France)**
I extended a compartmental model of MRSA transmission in pigs (using C++) that I had previously built and performed a risk assessment analysis to study LA-MRSA colonisation in French pork consumers.

April-May 2018 — **Research intern in epidemiological modelling, Conservatoire national des arts et métiers (Laboratoire MESuRS, Paris, France)**
I Implemented a stochastic compartmental model of the spread of methicillin-resistant Staphylococcus aureus (MRSA) in pig herds in French slaughterhouses (Using R).

SKILLS

Programming-Modelling : R, C++

LANGUAGES

French : Native
English : Fluent

PUBLICATIONS

- **Henriot P.**, Buelow E., Petit F., Ploy M.C., Dagot C., Opatowski L. Modeling the impact of urban and hospital wastewaters eco-exposomes on the antibiotic-resistance dynamics. Science of the Total Environment, 2024

- Kovacevic A., Smith D.R.M., Rahbé E., Novelli S., **Henriot P.**, Varon E., Cohen R., Temime L., Opatowski L. Revealing the drivers of antibiotic resistance trends in Streptococcus pneumoniae amidst the 2020 COVID-19 pandemic: Insights from mathematical modelling. eLife, 13:e85701, 2024

- **Henriot P.**, Anwar W. A., El Gaafary M., Abdo S., Rafik M., Hussein W. M., Sos D., Magdy I., Jean K., Temime L. Preventing iatrogenic HCV infection: A quantitative risk assessment based on observational data in an Egyptian hospital. PLOS Global Public Health 4(2): e0002821.

- **Henriot P.**, El Kassas M., Anwar W., Abdo S., Jean K., Temime L. An agent-based model to simulate the transmission dynamics of bloodborne pathogens within hospitals medRxiv (preprint, submitted), 2023.

- Smith, D.R.M., Jijón, S., Oodally, A., Shirreff, G., Aït Bouziad, K., Ante-Testard, P.A., Bastard, J., Bouziri, H., Daouda, O.S., Duchemin, T., Godon-Rensonnet, A.-S., **Henriot, P.**, Houri, Y., Neynaud, H., Perozziello, A., Thonon, F., Crépey, P., Dab, W., Jean, K., Temime, L. Sick leave due to COVID-19 during the first pandemic wave in France, 2020. Occup Environ Med oemed-2022-108451, 2022

- **Henriot, P.**, Castry, M., Luong Nguyen, L.B., Shimakawa, Y., Jean, K., Temime, L.Meta-analysis: risk of hepatitis C virus infection associated with hospital-based invasive procedures. Aliment Pharmacol Ther. 2022; 56: 558– 569, 2022

CONFERENCES & SEMINARS (Posters)

- **International Conference on Infectious Disease Dynamics (EPIDEMICS), 2023.** Henriot P , Anwar W, El Gaafary M, Abdo S, Rafik M, Hussein W, Sos D, Magdy I, Jean K, Temime L. An agent-based model to simulate the transmission dynamics of bloodborne pathogens within hospitals

- **European Congress of Clinical Microbiology Infectious Diseases (ECCMID), 2023.**
P. Henriot, W. A. Anwar, W. M. Hussein, I. M Mossad, K. Jean , L. Temime. Preventing iatrogenic HCV infection : A quantitative risk assessment based on observational data in an Egyptian hospital.

- **Journées scientifiques de l'ANRS, 2022.**
P. Henriot, W. A. Anwar, W. M. Hussein, I. M Mossad, K. Jean , L. Temime. Risk assessment of iatrogenic HCV infection in patients of an Egyptian hospital.

- **International Conference on Infectious Disease Dynamics (EPIDEMICS), 2021.**
Henriot P, Buelow E, Petit F, Ploy MC, Dagot C, Opatowski L. Modelling the impact of the urban and hospital eco-exposome on the dynamics of antibiotic resistance in effluents.

- **International Conference on Prevention Infection Control (ICPIC), 2021.**
P. Henriot, M. Castry, L. B. Luong Nguyen, Y. Shimakawa, K. Jean , L. Temime. Risk of HCV infection associated with hospital-based invasive procedures : a systematic review and meta-analysis.

CONFERENCES & SEMINARS (Oral)

- **Journées de l'Action Coordonnée "Modélisation des maladies infectieuses", 2023.**
Henriot P , Anwar W, El Gaafary M, Abdo S, Rafik M, Hussein W, Sos D, Magdy I, Jean K, Temime L. An agent-based model to simulate the transmission dynamics of bloodborne pathogens within hospitals.

- **Réunion annuelle AC42 ANRS – Réseau national hépatites virales, 2023.**
Henriot P , Anwar W, El Gaafary M, Abdo S, Rafik M, Hussein W, Sos D, Magdy I, Jean K, Temime L. An agent-based model to simulate the transmission dynamics of bloodborne pathogens within hospitals with an application to HCV.