

Barney Isaksen Potter

Postdoctoral Associate, Epidemiology of Microbial Diseases, Yale School of Public Health
Yale University

350 George St, New Haven, Connecticut, USA

barney@barney-potter.com

Google Scholar profile: <https://scholar.google.com/citations?user=MVosEJMAAAAJ&hl=en>

EDUCATION

B.A.	Reed College (Mathematics & Biology) 2016
Predoctoral certification	KU Leuven (Biomedical Sciences; <i>cum laude</i>) 2020
Ph.D.	KU Leuven (Biomedical Sciences) 2025

ACADEMIC & RESEARCH APPOINTMENTS

2016–2019	Data Coordinator I, Fred Hutchinson Cancer Research Center
2019–2020	Predoctoral Researcher in Biomedical Sciences, KU Leuven
2020–2025	Graduate Researcher in Biomedical Sciences, KU Leuven
2025-present	Postdoctoral Associate, YSPH, Yale University

HONORS, AWARDS, & RECOGNITION

2015	Summer Undergraduate Research Fellowship Recipient, Reed College
2016	Best Poster Award, ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics
2019	Belgian American Education Foundation (BAEF) Fellowship
2021	Brussels Times featured article: New tool shows the coronavirus strains circulating in Belgium

PROFESSIONAL & PUBLIC SERVICE

Committee service

2021–2022	Member, COVID-19 Genomics Belgium Consortium
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Co-authored 73 genomic surveillance reports between 2021-01-17 and 2022-11-08
(<https://www.uzleuven.be/nl/laboratoriumgeneeskunde/genomic-surveillance-sars-cov-2-belgium/genomic-surveillance-sars-cov-2-belgium-reports>)

Webpages

- 2021–2022 Nextstrain–Belgian SARS-CoV-2
(<https://nextstrain.org/community/GuyBaele/sars-cov-2-belgium>)
- 2021–present Barney Isaksen Potter (barneypotter24.github.io)

PRESENTATIONS

Oral

- 2022 Seminar, Life Sciences Center, Vilnius University
 “Human Migration Patterns Shape Hepatitis B Diversity” ([slides](#))
- 2024 Grubaugh Lab Meeting, Yale School of Public Health
 “Bayesian Phylodynamics of HBV and SARS-CoV-2” ([slides](#))

Poster

- 2016 7th ACM International Coinverence on Bioinformatics, Computational
 Biology, and Health Informatics
 “Modeling cell signaling networks with prize-collecting subhypernetworks”
- 2022 Mathematical and Computational Evolutionary Biology
 *“Leveraging tools from Nextstrain for bespoke phylogenetic analysis of viral
 pathogen epidemics”*
- 2022 Viral Genomes and Evolution
 *“Travel history-aware phylogeographic inference reveals patterns of SARS-CoV-2
 Omicron introduction into Pakistan”*

PUBLICATIONS

Peer-reviewed original research

*co-first author

(1) James Hadfield, Colin Megill, Sidney M Bell, John Huddleston, **Barney Potter**, Charlton Callender, Pavel Sagulenko, Trevor Bedford, Richard A Neher
Nextstrain: Real-time tracking of pathogen evolution
Bioinformatics 34(23), 4121–4123 (2018)

(2) **Barney I Potter**, Rebecca Kondor, James Hadfield, John Huddleston, John Barnes, Thomas Rowe, Lizheng Guo, Xiyang Xu, Richard A Neher, Trevor Bedford, David E Wentworth

Evolution and rapid spread of a reassortant A(H3N2) virus that predominated the 2017–2018 influenza season
Virus Evolution 5(2), vez046 (2019)

(3) Allison Black, Louise H Moncla, Katherine Laiton-Donato, **Barney Potter**, Lissethe Pardo, Angelica Rico, Catalina Tovar, Diana P Rojas, Ira M Longini, M Elizabeth Halloran, Dioselina Peláez-Carvajal, Juan D Ramírez, Marcela Mercado-Reyes, Trevor Bedford
Genomic epidemiology supports multiple introductions and cryptic transmission of Zika virus in Colombia
BMC Infectious Diseases 19(1), 1–11 (2019)

(4) Michael J Song, **Barney I Potter**, Jeff J Doyle, Jeremy E Coate
Gene Balance Predicts Transcriptional Responses Immediately Following Ploidy Change in Arabidopsis thaliana
The Plant Cell 32(5), 1434–1448 (2020)

(5) Laura K Jackson, **Barney Potter**, Sean Schneider, Matthew Fitzgibbon, Kris Blair, Hajirah Farah, Uma Krishna, Trevor Bedford, Richard M Peek Jr, Nina R Salama
Helicobacter pylori diversification during chronic infection within a single host generates sub-populations with distinct phenotypes
PLoS Pathogens 16(12), e1008686 (2020)

(6) Jean-Paul Pirnay, Philippe Selhorst, Samuel L Hong, Christel Cochez, **Barney Potter**, Piet Maes, Mauro Petrillo, Gytis Dudas, Vincent Claes, Yolien Van der Beken, Gilbert Verbeken, Julie Degueudre, Simon Dellicour, Lize Cuypers, France T'sas, Guy Van den Eede, Bruno Verhasselt, Wouter Weuts, Cedric Smets, Jan Mertens, Philippe Geeraerts, Kevin K Ariën, Emmanuel André, Pierre Neirinckx, Patrick Soentjens, Guy Baele
Variant analysis of SARS-CoV-2 genomes from Belgian military personnel engaged in overseas missions and operations
Viruses 13(7), 1359 (2021)

(7) Nena Bollen, Maria Artesi, Keith Durkin, Samuel L Hong, **Barney Potter**, Bouchra Boujemla, Bert Vanmechelen, Joan Martí-Carreras, Tony Wawina-Bokalanga, Cécile Meex, Sébastien Bontems, Marie-Pierre Hayette, Emmanuel André, Piet Maes, Vincent Bours, Guy Baele, Simon Dellicour
Exploiting genomic surveillance to map the spatio-temporal dispersal of SARS-Co-2 spike mutation in Belgium across 2020
Scientific Reports 11(1), 18580 (2021)

(8) Gytis Dudas, Samuel L Hong, **Barney I Potter**, Sébastien Calvignac-Spencer, Frédéric S Niatou-Singa, Thais B Tombolomako, Terence Fuh-Neba, Ulrich Vickos, Markus Ulrich, Fabian H Leendertz, Kamran Khan, Carmen Huber, Alexander Watts, Ingrida Olendraitė, Joost Snijder, Kim N Wijnant, Alexandre MJJ Bonvin, Pascale Martres, Sylvie Behillil, Ahidjo Ayoub, Martin Foudi Maidadi, Dowbiss Meta Djomsi, Celestin Godwe, Christelle Butel, Aistis Šimaitis, Miglė Gabrielaitė, Monika Katėnaitė, Rimvydas Norvilas, Ligita Raugaitė, Giscard Wilfried Koyaweda, Jephthé Kaleb Kandou, Rimvydas Jonikas, Inga

Nasvytienė, Živilė Žemeckienė, Dovydas Gečys, Kamilė Tamušauskaitė, Milda Norkienė, Emilija Vasiliūnaitė, Danguolė Žiogienė, Albertas Timinskas, Marius Šukys, Mantas Šarauskas, Gediminas Alzbutas, Adrienne Amuri Aziza, Eddy Kinganda Lusamaki, Jean-Claude Makangara Cigolo, Francisca Muyembe Mawete, Emmanuel Lokilo Lofiko, Placide Mbala Kingebeni, Jean-Jacques Muyembe Tamfum, Marie Roseline Darnycka Belizaire, René Ghislain Essomba, Marie Claire Okomo Assoumou, Akenji Blaise Mboringong, Alle Baba Dieng, Dovilė Juozapaitė, Salome Hosch, Justino Obama, Mitoha Ondo'o Ayekaba, Daniel Naumovas, Arnoldas Pautienius, Clotaire Donatien Rafaï, Astra Vitkauskienė, Rasa Ugenskienė, Alma Gedvilaitė, Darius Čereškevičius, Vaiva Lesauskaitė, Lukas Žemaitis, Laimonas Griškevičius, Guy Baele

Emergence and spread of SARS-CoV-2 lineage B.1.620 with variant of concern-like mutations and deletions

Nature Communications 12(1), 5769 (2021)

(9) Raf Huttener, Lieven Thorrez, Thomas in 't Veld, **Barney Potter**, Guy Baele, Mikaela Granvik, Leentje Van Lommel, Frans Schuit

Regional effect on the molecular clock rate of protein evolution in Eutherian and Metatherian genomes

BMC Ecology and Evolution 21, 1–15 (2021)

(10) Sofia G Seabra, Pieter JK Libin, Kristof Theys, Anna Zhukova, **Barney I Potter**, Hanna Nebenzahl-Guimaraes, Alexander E Gorbalenya, Igor A Sidorov, Victor Pimentel, Marta Pingarilho, Ana TR de Vasconcelos, Simon Dellicour, Ricardo Khouri, Olivier Gascuel, Anne-Mieke Vandamme, Guy Baele, Lize Cuypers, Ana B Abecasis

Genome-wide diversity of Zika virus: Exploring spatio-temporal dynamics to guide a new nomenclature proposal

Virus Evolution 8(1), veac029 (2022)

(11) Jan Van Elslande, Femke Kerckhofs, Lize Cuypers, Elke Wollants, **Barney Potter**, Anne Vankeerberghen, Lien Cattoir, Astrid Holderbeke, Sylvie Behillil, Sarah Gorissen, Mandy Bloemen, Jef Arnout, Marc Van Ranst, Johan Van Weyenbergh, Piet Maes, Guy Baele, Pieter Vermeersch, Emmanuel André, COG-Belgium Consortium

Two separate clusters of SARS-CoV-2 delta variant infections in a group of 41 students travelling from India: an illustration of the need for rigorous testing and quarantine

Viruses 14(6), 1198 (2022)

(12) Lize Cuypers, Simon Dellicour, Samuel L Hong, **Barney I Potter**, Bruno Verhasselt, Nick Vereecke, Laurens Lambrechts, Keith Durkin, Vincent Bours, Sofieke Klammer, Guillaume Bayon-Vicente, Carl Vael, Kevin K Ariën, Ricardo De Mendonca, Oriane Soetens, Charlotte Michel, Bertrand Bearzatto, Reinout Naesens, Jeremie Gras, Anne Vankeerberghen, Veerle Matheeußen, Geert Martens, Dagmar Obbels, Ann Lemmens, Bea Van den Poel, Ellen Van Even, Klara De Rauw, Luc Waumans, Marijke Reynders, Jonathan Degosserie, Piet Maes, Emmanuel André, Guy Baele

Two years of genomic surveillance in Belgium during the SARS-CoV-2 pandemic to attain country-wide coverage and monitor the introduction and spread of emerging variants

Viruses 14(10), 2301 (2022)

(13) Xiang Ji, Alexander A Fisher, Shuo Su, Jeffrey L Thorne, **Barney Potter**, Philippe Lemey, Guy Baele, Marc A Suchard

Scalable Bayesian divergence time estimation with ratio transformations

Systematic Biology 72(5), 1136–1153 (2023)

(14) **Barney I Potter***, Marijn Thijssen*, Nídia Sequeira Trovão, Andrea Pineda-Peña, Marijke Reynders, Thomas Mina, Carolina Alvarez, Samad Amini-Bavil-Olyaei, Frederik Nevens, Piet Maes, Philippe Lemey, Marc Van Ranst, Guy Baele, Mahmoud Reza Pourkarim

Contemporary and historical human migration patterns shape hepatitis B virus diversity

Virus Evolution 10(1), veae009 (2024)

(15) Nena Bollen, Samuel L. Hong, **Barney I. Potter**, Reto Lienhard, Marie-Lise Tritten, Nicolas Sierro, Emmanuel Guedj, Rémi Dulize, David Bornand, Mehdi Auberson, Maxime Berthouzoz, Pauline Duvoisin, Nikolai V. Ivanov, Manuel C. Peitsch, Verity Hill, COVID-19 Genomics Belgium Consortium, Veerle Matheeußen, Sébastien Bontems, Bruno Verhasselt, Jonathan Degosserie, Luc Waumans, Guillaume Bayon-Vicente, Marijke Reynders, Lien Cattoir, Valentin Coste, Hanne Valgaeren, Johan Van Weyenbergh, Lize Cuypers, Emmanuel André, Keith Durkin, Piet Maes, Kamran Khan, Carmen Huber, Marc A. Suchard, Martin Maïdadi Foudi, Célestin Godwe, Moïse Henri Moumbeket Yifomnjou, Messanga Landry, Richard Njouom, Placide Mbala Kingebeni, Paul Oluniyi, Idowu B. Olawoye, Christian Happi, Ahidjo Ayoub, Martine Peeters, Sylvie Behillil, Etienne Simon-Lorière, Martin Hölzer, Simon Dellicour, Gytis Dudas, Guy Baele

Tracking down the origin and subsequent spread of SARS-CoV-2 lineage B.1.619

Virus Evolution (2024) *in press*

(16) Andrew Holtz, Johan Van Weyenbergh, Samuel L. Hong, Lize Cuypers, Áine O’Toole, Gytis Dudas, Marco Gerdol, **Barney I. Potter**, Francine Ntoumi, Claujens Chastel Mfoutou Mapangy, Bert Vanmechelen, Tony Wawina-Bokalanga, Bram Van Holm, Soraya Maria Menezes, Katja Soubotko, Gijs Van Pottelbergh, Elke Wollants, Pieter Vermeersch, Ann-Sophie Jacob, Brigitte Maes, Dagmar Obbels, Veerle Matheeußen, Geert Martens, Jérémie Gras, Bruno Verhasselt, Wim Laffut, Carl Vael, Truus Goebegbuer, Robert Van der Kant, Frederic Rousseau, Joost Schymkowitz, Luis Serrano, Javier Delgado, Tom Wenseleers, Vincent Bours, Emmanuel André, Marc A. Suchard, Andrew Rambaut, Simon Dellicour, Piet Maes, Keith Durkin, Guy Baele

Emergence of the B.1.214.2 SARS-CoV-2 lineage with an Omicron-like spike insertion and a unique upper airway immune signature

Genome Biology 24(1), 1139 (2024)

(17) **Barney I. Potter***, Zaira Rehman, Muhammad Salman, Aamer Ikram, Samuel L. Hong, Gytis Dudas, Mandev S. Gill, Guy Baele, Massab Umair

Genomic epidemiology of Omicron (BA.1) as driver of Pakistan’s fifth SARS-CoV-2 wave

Journal of Medical Virology (2025) *in review*

Pre-prints (currently not peer reviewed)

(1) Allison Black, **Barney Potter**, Gytis Dudas, Leora Feldstein, Nathan D Grubaugh, Kristian G Andersen, Brett R Ellis, Esther M Ellis, Trevor Bedford

Genetic characterization of the Zika virus epidemic in the US Virgin Islands

bioRxiv 113110 (2017)

(2) Trevor Bedford, John Huddleston, **Barney Potter**, Richard A Neher

Seasonal influenza circulation patterns and projections for September 2019 to September 2020

bioRxiv 780627 (2019)

(3) Yvan Butera, Samuel L Hong, Muhammed Semakula, Nena Bollen, Verity Hill, Áine Niamh O'Toole, **Barney I Potter**, Dieudonné Mutangana, Reuben Sindayiheba, Robert Rutayisire, Maria Artesi, Vincent Bours, Nadine Rujeni, Simon Dellicour, Keith Durkin, Leon Mutesa, Guy Baele

SARS-CoV-2 genomic surveillance in Rwanda: Introductions and local transmission of the B.1.617.2 (Delta) variant of concern

medRxiv 31.22275802 (2022)