

Lori Ferrins, Ph.D.

Northeastern University, Pharmaceutical Sciences

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Employment History

- 2024-Present ***Northeastern University, Pharmaceutical Sciences, Boston, USA***
Associate Professor (2024-Present)
- 2017-2024 ***Northeastern University, Department of Chemistry and Chemical Biology, Boston, USA***
Research Associate Professor (2021-2024)
Research Assistant Professor (2017-2021)
- 2015-2017 ***Northeastern University, Laboratory of Neglected Disease Drug Discovery, Boston, USA***
PI: Prof. Michael Pollastri
Associate Research Scientist (2016-2017)
Postdoctoral Researcher (2015-2016)
- 2012-2015 ***Monash Institute of Pharmaceutical Sciences, Melbourne, Australia***
Technical Assistant (2013-2015)
Demonstrator and Tutor (2012-2015)
- 2010-2011 ***LaTrobe University, Bundoora, Australia***
Demonstrator and Tutor
- 2010-2011 ***Advanced Molecular Technologies, Scoresby, Australia***
Supervisor: Dr. Seb Marcuccio
Synthetic Chemist Intern

Key Responsibilities

- 2021- ***Research Associate Professor, Northeastern University, Department of Chemistry and Chemical Biology***
- Independently develop novel and collaborative research programs and projects focusing on underresourced infectious diseases and apply for funding to support these
 - Supervise and mentor research scientists, postdoctoral researchers, and graduate and undergraduate students
 - Project leader for all projects in the lab, of which seven programs are funded by NIH grants including one where I am the MPI, and another where I am the Co-I
 - Independently manage and control the budgets for all projects
 - Recruit and mentor undergraduate lab researchers
 - Write and publish research articles as first and/or corresponding author
 - Initiate collaborations with other researchers
- 2017-2021 ***Research Assistant Professor, Northeastern University, Department of Chemistry and Chemical Biology***
- Successfully obtained federal funding (R01AI152092) as a MPI to support new research within the group
 - Secured internal seed funding to develop preliminary data in support of a future proposal
 - Project leader for five projects, which are all funded by NIH grants
 - Recruit and mentor undergraduate lab researchers
 - Supervise and mentor postdoctoral researchers, and graduate and undergraduate students

2016-2017 *Associate Research Scientist, Northeastern University, Department of Chemistry and Chemical Biology*

- Project leader for two projects, which were funded by NIH grants
- Management of lab consumable budget
- Responsible for prioritization of key experiments
- Preparation of progress reports for the NIH and IACUC paperwork

Education

- 2012-2015** Ph.D., Monash Institute of Pharmaceutical Sciences, Australia
Supervisor: Prof. Jonathan Baell
Title – “*Novel heterocyclic inhibitors for human African trypanosomiasis*”
- 2011** B. Med. Chem. (Hons – Chemistry, 1st Class), La Trobe University, Australia
Supervisor: Dr. Belinda Abbott and Dr. Seb Marcuccio
Title – “*Synthesis of picrorocellin and structural derivatives*”
- 2009** B. Med. Chem., La Trobe University, Australia

Active Funding - External

3-Apr-2020 – 31-Mar-2025

National Institutes of Health, R01AI152092

Repurposing kinase inhibitor chemotypes as antimalarials

Role: **Ferrins (MPI)**, Chibale (PI), Willson (MPI)

Total Budget: \$1,567,032 (total costs) / \$345,954 (direct costs to NU)

21-Jul-2021 – 30-Jun-2026

National Institutes of Health, R01AI160379

Validation of *Trypanosoma cruzi* dihydroorotate dehydrogenase as a drug target for Chagas disease

Role: **Ferrins (Co-I)**, Nonato (PI), Emery (MPI)

Total Budget: \$ 590,164 (total costs) / \$ 67,898 (direct costs to NU)

22-Feb-2019 – 31-Jan-2024

National Institutes of Health, R33AI141227

Lead optimization of hits identified from virtual and experimental screens of multiple industrial libraries

Role: **Ferrins (Interim PI)**

Total Budget: \$1,637,721 (total costs, over 5 years) / \$1,059,472 (direct costs to NU)

4-Dec-2014 – 31-Mar-2026

National Institutes of Health, 2R01AI114685

Repurposing human kinase inhibitor chemotypes for Neglected Tropical Diseases

Role: **Ferrins (Interim PI)**

Total Budget: \$ 2,089,227 (total costs) / \$ 809,288 (direct costs to NU)

1-Feb-2020 – 31-Jan-2024

National Institutes of Health, R33 AI141189

Compounds that block a novel *Candida albicans* target

Role: **Ferrins (Interim MPI)**, Koehler (PI)

Total Budget: \$ 756,940 (total costs) / \$ 476,872 (direct costs to NU)

15-May-2020 – 30-Apr-2024

National Institutes of Health, R01 AI148235

Inhibiting sequential biosynthetic steps of a fungal-specific organelle

Role: **Ferrins (Interim MPI)**, Koehler (PI)

Total Budget: \$ 375,891 (total costs) / \$ 239,421 (direct costs to NU)

19-Aug-2016 – 21-Mar-2026

National Institutes of Health, 2R01 AI124046

Optimization and Modes of Action of NEU-4438, a New Anti-trypanosome Lead Drug

Role: **Ferrins (Interim MPI)**, Mensa-Wilmot (PI)

Total Budget: \$ 1,499,723 (total costs) / \$ 968,496 (direct costs to NU)

1-May-2023 – 30-Apr-2025

National Institutes of Health, Developmental Project via AViDD

Development of covalent SARS-CoV-2 papain-like protease inhibitors

Role: **Ferrins (MPI)**, Wakatsuki (PI)

Total Budget: \$627,230 (total costs) / \$180,000 (direct costs to NU)

Pending Funding - External

National Institutes of Health, R01AI177978

Repurposing human kinase inhibitor chemotypes as antiamebic agents

Role: **Ferrins (Co-I)**, Rice (PI)

Total Budget: \$ 928,119 (direct costs to NU)

National Institutes of Health, 2R01

Chemical Optimization and Physiologic Targets of Curaxins in HAT Drug Discovery

Role: **Ferrins (MPI)**, Mensa-Wilmot (PI)

Total Budget: \$ 865,754 (direct costs to NU)

National Institutes of Health, R21

Revisiting Quinine-based Compounds as Inhibitors of *Toxoplasma gondii*

Role: **Ferrins (MPI)**, Abugri (PI)

Total Budget: \$ 100,000 (direct costs to NU)

Completed Funding - Internal

Northeastern University Tier 1 Seed Funding

Screening for covalent inhibitors of parasitic DHODH

Role: **Ferrins (PI)**, Mattos (Co-PI), Manetsch (Co-PI)

Total Budget: \$50,000

Teaching

Northeastern University (*Teaching effectiveness score from student evaluations out of 5.0*)

Summer 1	2024	CHEM4456 Organic Chemistry 3	
Spring	2024	CHEM5672 Organic Synthesis 2	4.8
Spring	2024	CHEM5501 Chemical Safety	4.9
Fall	2023	PHSC5400 Principles of Drug Design	5.0
Summer	2021	PHSC4502 Pharmacology/Medicinal Chemistry 2	4.1

Publications

896 citations; *denotes corresponding author/s; †denotes undergraduate student co-author supervised by LF; #denotes graduate student co-author supervised by LF; ^denotes visiting student supervised by LF; ^denotes

postdoctoral researcher supervised by LF.

1. Klug, D. M.; Tse, E. G.; Silva, D. G.; Cao, Y.; Charman, S. A.; Chauhan, J.; Crichton, E.; Dichiara, M.; Drake, C.; Drewry, D.; da Silva Emery, F.; **Ferrins, L.**; Graves, L.; Hopkins, E.; Kresina, T. A. C.; Lorente-Macias, A.; Perry, B.; Phipps, R.; Quiroga, B.;[†] Quotadamo, A.;[^] Sabatino, G. N.; Sama, A.; Schätzlein, A.; Simpson, Q. J.;^Δ Steele, J.; Shanu-Wilson, J.; Sjö, P.; Stapleton, P.; Swain, C. J.; Vaideanu, A.; Xie, H.; Zuercher, W.; Todd, M. H., Open Source Antibiotics: Simple Diarylimidazoles Are Potent against Methicillin-Resistant *Staphylococcus aureus*. *ACS Infectious Diseases* **2023**, *9* (12), 2423-2435. DOI: [10.1021/acsinfecdis.3c00286](https://doi.org/10.1021/acsinfecdis.3c00286)
Note that this is also available of ChemRxiv: [10.26434/chemrxiv-2023-52p7p](https://doi.org/10.26434/chemrxiv-2023-52p7p)
2. Dichiara, M.;^Δ Simpson, Q.J.;^Δ Quotadamo, A.;[^] Jalani, H.B.; Huang, A.X.;[†] Millard, C.M.; Klug, D.M.; Tse, E.G; Todd, M.H.; Silva, D.G.; Emery, F.; Carlson, J.E.; Zheng, S.-L.; Vleminckx, M.; Matheussen, A.; Caljon, G.; Pollastri, M.P.; Sjö, P.; Perry, B.; **Ferrins, L.*** Structure–Property Optimization of a Series of Imidazopyridines for Visceral Leishmaniasis. *ACS Infectious Diseases* **2023**, *9* (8), 1470-1487. DOI: [10.1021/acsinfecdis.3c00040](https://doi.org/10.1021/acsinfecdis.3c00040)
3. **Ferrins, L.**;* Buskes, M. J.;^Δ Kapteyn, M. M.; Engels, H. N.; Enos, S. E.; Lu, C.; Klug, D. M.; Singh, B.; Quotadamo, A.;[^] Bachovchin, K.; Tear, W. F.; Spaulding, A. E.; Forbes, K. C.;[†] Bag, S.; Rivers, M.; LeBlanc, C.; Burchfield, E.; Armand, J. R.; Diaz-Gonzalez, R.; Ceballos-Perez, G.; García-Hernández, R.; Pérez-Moreno, G.; Bosch-Navarrete, C.; Ruiz-Pérez, L. M.; Gamarro, F.; González-Pacanowska, D.; Navarro, M.; Mensa-Wilmot, K.; Pollastri, M. P.; Kyle, D. E.; Rice, C. A., Identification of novel anti-amoebic pharmacophores from kinase inhibitor chemotypes. *Frontiers in Microbiology* **2023**, *14*. DOI: [10.3389/fmicb.2023.1149145](https://doi.org/10.3389/fmicb.2023.1149145)
4. Sanders, B. C.; Pokhrel, S.; Labbe, A. D.; Mathews, I. I.; Cooper, C. J.; Davidson, R. B.; Phillips, G.; Weiss, K. L.; Zhang, Q.; O'Neill, H.; Kaur, M.; Schmidt, J. G.; Reichard, W.; Surendranathan, S.; Parvathareddy, J.; Phillips, L.; Rainville, C.; Sterner, D. E.; Kumaran, D.; Andi, B.; Babnigg, G.; Moriarty, N. W.; Adams, P. D.; Joachimiak, A.; Hurst, B. L.; Kumar, S.; Butt, T. R.; Jonsson, C. B.; **Ferrins, L.**; Wakatsuki, S.; Galanie, S.; Head, M. S.; Parks, J. M., Potent and selective covalent inhibition of the papain-like protease from SARS-CoV-2. *Nature Communications* **2023**, *14* (1), 1733.
A version of this publication is also available on *Research square*, **2021**. DOI: [10.21203/rs.3.rs-906621/v1](https://doi.org/10.21203/rs.3.rs-906621/v1)
5. Sharma, A.; Cipriano, M.; **Ferrins, L.**; Hajduk, S. L.; Mensa-Wilmot, K., Hypothesis-generating Proteome Perturbation to Identify NEU-4438 and Acoziborole Modes of Action in the African Trypanosome. *iScience* **2022**, 105302. DOI: [10.1016/j.isci.2022.105302](https://doi.org/10.1016/j.isci.2022.105302)
6. Mills, C. L.; Yin, P.; Leifer, B.; **Ferrins, L.**; O'Doherty, G. A.; Beuning, P. J.; Ondrechen, M. J., Functional Characterization of Structural Genomics Proteins in the Crotonase Superfamily. *ACS Chemical Biology* **2022**, *17* (2), 395-403. DOI: [10.1021/acschembio.1c00842](https://doi.org/10.1021/acschembio.1c00842)
7. Jansen, J.; Reimer, K. C.; Nagai, J. S.; Varghese, F. S.; Overheul, G. J.; de Beer, M.; Rovers, R.; Daviran, D.; Fermin, L. A. S.; Willemsen, B.; Beukenboom, M.; Djudjaj, S.; von Stillfried, S.; van Eijk, L. E.; Mastik, M.; Bulthuis, M.; Dunnen, W. d.; van Goor, H.; Hillebrands, J.-L.; Triana, S. H.; Alexandrov, T.; Timm, M.-C.; van den Berge, B. T.; van den Broek, M.; Nlandu, Q.; Heijnert, J.; Bindels, E. M. J.; Hoogenboezem, R. M.; Mooren, F.; Kuppe, C.; Miesen, P.; Grünberg, K.; Ijzermans, T.; Steenbergen, E. J.; Czogalla, J.; Schreuder, M. F.; Sommerdijk, N.; Akiva, A.; Boor, P.; Puelles, V. G.; Floege, J.; Huber, T. B.; Achdout, H.; Aimon, A.; Bar-David, E.; Barr, H.; Ben-Shmuel, A.; Bennett, J.; Bobby, M. L.; Borden, B.; Bowman, G. R.; Brun, J.; Bvnbs, S.; Calmiano, M.; Carbery, A.; Cattermole, E.; Chernychenko, E.; Choder, J. D.; Clyde, A.; Coffland, J. E.; Cohen, G.; Cole, J.; Contini, A.; Cox, L.; Cvitkovic, M.; Dias, A.; Donckers, K.; Dotson, D. L.; Douangamath, A.; Duberstein, S.; Dudgeon, T.; Dunnett, L.; Eastman, P. K.; Erez, N.; Eyermann, C. J.; Fairhead, M.; Fate, G.; Fearon, D.; Federov, O.; Ferla, M.; Fernandes, R. S.; **Ferrins, L.**; Foster, R.; Foster, H.; Gabizon, R.; Garcia-Sastre, A.; Gawriljuk, V. O.; Gehrtz, P.; Gileadi, C.; Giroud, C.; Glass, W. G.; Glen, R.; Itai, g.; Godoy, A. S.; Gorichko, M.; Gorrie-Stone, T.; Griffen, E. J.; Hart, S. H.; Heer, J.; Henry, M.; Hill, M.; Horrell, S.; Hurley, M. F. D.; Israely, T.; Jajack, A.; Jnoff, E.; Jochmans, D.; John, T.; De Jonghe, S.; Kantsadi, A. L.; Kenny, P. W.; Kiappes, J. L.; Koekemoer, L.; Kovar, B.; Krojer, T.; Lee, A. A.; Lefker, B. A.; Levy, H.; London, N.; Lukacik, P.;

- Macdonald, H. B.; Maclean, B.; Malla, T. R.; Matviuk, T.; McCorkindale, W.; McGovern, B. L.; Melamed, S.; Michurin, O.; Mikolajek, H.; Milne, B. F.; Morris, A.; Morris, G. M.; Morwitzer, M. J.; Moustakas, D.; Nakamura, A. M.; Neto, J. B.; Neyts, J.; Nguyen, L.; Noske, G. D.; Oleinikovas, V.; Oliva, G.; Overheul, G. J.; Owen, D.; Psenak, V.; Pai, R.; Pan, J.; Paran, N.; Perry, B.; Pingle, M.; Pinjari, J.; Politi, B.; Powell, A.; Puni, R.; Rangel, V. L.; Reddi, R. N.; Reid, S. P.; Resnick, E.; Ripka, E. G.; Robinson, M. C.; Robinson, R. P.; Rodriguez-Guerra, J.; Rosales, R.; Rufa, D.; Schofield, C.; Shafeev, M.; Shaikh, A.; Shi, J.; Shurrush, K.; Sing, S.; Sittner, A.; Skyner, R.; Smalley, A.; Smilova, M. D.; Solmesky, L. J.; Spencer, J.; Strain-Damarell, C.; Swamy, V.; Tamir, H.; Tennant, R.; Thompson, W.; Thompson, A.; Thompson, W.; Tomasia, S.; Tumber, A.; Vakonakis, I.; van Rij, R. P.; van Geel, L.; Varghese, F. S.; Vaschetto, M.; Vitner, E. B.; Voelz, V.; Volkamer, A.; von Delft, F.; von Delft, A.; Walsh, M.; Ward, W.; Weatherall, C.; Weiss, S.; White, K. M.; Wild, C. F.; Wittmann, M.; Wright, N.; Yahalom-Ronen, Y.; Zaidmann, D.; Zidane, H.; Zitzmann, N.; van Rij, R. P.; Costa, I. G.; Schneider, R. K.; Smeets, B.; Kramann, R., SARS-CoV-2 infects the human kidney and drives fibrosis in kidney organoids. *Cell Stem Cell* **2022**, *29* (2), 217-231.e8. DOI: [10.1016/j.stem.2021.12.010](https://doi.org/10.1016/j.stem.2021.12.010)
8. The Covid Moonshot Consortium; Achdout, H.; Aimon, A.; Bar-David, E.; Barr, H.; Ben-Shmuel, A.; Bennett, J.; Boby, M. L.; Borden, B.; Bowman, G. R.; Brun, J.; Bvnbs, S.; Calmiano, M.; Carbery, A.; Cattermole, E.; Chernyshenko, E.; Chodera, J. D.; Clyde, A.; Coffland, J. E.; Cohen, G.; Cole, J.; Contini, A.; Cox, L.; Cvitkovic, M.; Dias, A.; Donckers, K.; Dotson, D. L.; Douangamath, A.; Duberstein, S.; Dudgeon, T.; Dunnett, L.; Eastman, P. K.; Erez, N.; Eyermann, C. J.; Fairhead, M.; Fate, G.; Fearon, D.; Fedorov, O.; Ferla, M.; Fernandes, R. S.; **Ferrins, L.**; Foster, R.; Foster, H.; Gabizon, R.; Garcia-Sastre, A.; Gawriljuk, V. O.; Gehrtz, P.; Gileadi, C.; Giroud, C.; Glass, W. G.; Glen, R.; Glinert, I.; Godoy, A. S.; Gorichko, M.; Gorrie-Stone, T.; Griffen, E. J.; Hart, S. H.; Heer, J.; Henry, M.; Hill, M.; Horrell, S.; Hurley, M. F. D.; Israely, T.; Jajack, A.; Jnoff, E.; Jochmans, D.; John, T.; Jonghe, S. D.; Kantsadi, A. L.; Kenny, P. W.; Kiappes, J. L.; Koekemoer, L.; Kovar, B.; Krojer, T.; Lee, A. A.; Lefker, B. A.; Levy, H.; London, N.; Lukacik, P.; Macdonald, H. B.; MacLean, B.; Malla, T. R.; Matviuk, T.; McCorkindale, W.; McGovern, B. L.; Melamed, S.; Michurin, O.; Mikolajek, H.; Milne, B. F.; Morris, A.; Morris, G. M.; Morwitzer, M. J.; Moustakas, D.; Nakamura, A. M.; Neto, J. B.; Neyts, J.; Nguyen, L.; Noske, G. D.; Oleinikovas, V.; Oliva, G.; Overheul, G. J.; Owen, D.; Psenak, V.; Pai, R.; Pan, J.; Paran, N.; Perry, B.; Pingle, M.; Pinjari, J.; Politi, B.; Powell, A.; Puni, R.; Rangel, V. L.; Reddi, R. N.; Reid, S. P.; Resnick, E.; Ripka, E. G.; Robinson, M. C.; Robinson, R. P.; Rodriguez-Guerra, J.; Rosales, R.; Rufa, D.; Schofield, C.; Shafeev, M.; Shaikh, A.; Shi, J.; Shurrush, K.; Singh, S.; Sittner, A.; Skyner, R.; Smalley, A.; Smilova, M. D.; Solmesky, L. J.; Spencer, J.; Strain-Damerell, C.; Swamy, V.; Tamir, H.; Tennant, R.; Thompson, W.; Thompson, A.; Thompson, W.; Tomasio, S.; Tumber, A.; Vakonakis, I.; van Rij, R. P.; Vangeel, L.; Varghese, F. S.; Vaschetto, M.; Vitner, E. B.; Voelz, V.; Volkamer, A.; von Delft, F.; von Delft, A.; Walsh, M.; Ward, W.; Weatherall, C.; Weiss, S.; White, K. M.; Wild, C. F.; Wittmann, M.; Wright, N.; Yahalom-Ronen, Y.; Zaidmann, D.; Zidane, H.; Zitzmann, N., Open Science Discovery of Oral Non-Covalent SARS-CoV-2 Main Protease Inhibitor Therapeutics. *Science* **2023**, *382* (6671), eabo7201. DOI: [10.1126/science.abo7201](https://doi.org/10.1126/science.abo7201)
- A version of this publication is also available on *bioRxiv* **2021**, DOI: [2020.10.29.339317](https://doi.org/2020.10.29.339317)
9. Klug, D. M.; Mavrogiannaki, E. M.[^]; Forbes, K. C.; Silva, L.; Diaz-Gonzalez, R.; Pérez-Moreno, G.; Ceballos-Pérez, G.; Garcia-Hernández, R.; Bosch-Navarrete, C.; Córdón-Obras, C.; Gómez-Liñán, C.; Saura, A.; Momper, J. D.; Martinez-Martinez, M. S.; Manzano, P.; Syed, A.; El-Sakkary, N.; Caffrey, C. R.; Gamarro, F.; Ruiz-Perez, L. M.; Gonzalez Pacanowska, D.; **Ferrins, L.***; Navarro, M.; Pollastri, M. P., Lead Optimization of 3,5-Disubstituted-7-Azaindoles for the Treatment of Human African Trypanosomiasis. *Journal of Medicinal Chemistry* **2021**, *64* (13), 9404-9430, DOI: [10.1021/acs.jmedchem.1c00674](https://doi.org/10.1021/acs.jmedchem.1c00674)
10. Dahlin, J. L.; Auld, D. S.; Rothenaigner, I.; Haney, S.; Sexton, J. Z.; Nissink, J. W. M.; Walsh, J.; Lee, J. A.; Strelow, J. M.; Willard, F. S.; **Ferrins, L.**; Baell, J. B.; Walters, M. A.; Hua, B. K.; Hadian, K.; Wagner, B. K., Nuisance compounds in cellular assays. *Cell Chemical Biology*, **2021**, *28*(3), 356-370. DOI: [10.1016/j.chembiol.2021.01.021](https://doi.org/10.1016/j.chembiol.2021.01.021)
11. Klug, D. M.; Diaz-Gonzalez, R.; DeLano, T.J.[†]; Mavrogiannaki, E.M.[^]; Buskes, M.J.; Dalton, R.M.[‡];

- Fisher, J.K.[†]; Schneider, K.M.[†]; Hilborne, V.[†]; Fritsche, M.G.[†]; Simpson, Q.J.^Δ; Tear, W.F.; Devine, W.G.; Pérez-Moreno, G.; Ceballos-Pérez, G.; García-Hernández, R.; Bosch-Navarrete, C.; Ruiz-Pérez, L.M.; Gamarro, F.; González-Pacanowska, D.; Martínez-Martínez, M.S.; Manzano-Chinchon, P.; Navarro, M.; Pollastri, M.P.; **Ferrins, L.***, Structure-property studies of an imidazoquinoline chemotype with antitrypanosomal activity. *RSC Medicinal Chemistry*, **2020**, *11*, 950-959. DOI: [10.1039/D0MD00103A](https://doi.org/10.1039/D0MD00103A)
12. Buskes, M. J.; Clements, M.; Bachovchin, K. A.; Jalani, H. B.; Leonard, A.; Bag, S.; Klug, D. M.; Singh, B.; Campbell, R. F.; Sciotti, R. J.; El-Sakkary, N.; Caffrey, C. R.*; Pollastri, M. P.; **Ferrins, L.***, Structure–Bioactivity Relationships of Lapatinib Derived Analogs against *Schistosoma mansoni*. *ACS Medicinal Chemistry Letters* **2020**, *11* (3), 258-265. DOI: [10.1021/acsmchemlett.9b00455](https://doi.org/10.1021/acsmchemlett.9b00455)
13. Singh, B.; Bernatchez, J. A.; McCall, L.-I.; Calvet, C. M.; Ackermann, J.; Souza, J. M.; Thomas, D.; Silva, E. M.; Bachovchin, K. A.; Klug, D. M.; Jalani, H. B.; Bag, S.; Buskes, M. J.; Leed, S. E.; Roncal, N. E.; Penn, E. C.; Erath, J.; Rodriguez, A.; Sciotti, R. J.; Campbell, R. F.; McKerrow, J.; Siqueira-Neto, J. L.; **Ferrins, L.***; Pollastri, M. P., Scaffold and Parasite Hopping: Discovery of New Protozoal Proliferation Inhibitors. *ACS Medicinal Chemistry Letters* **2020**, *11* (3), 249-257. DOI: [10.1021/acsmchemlett.9b00453](https://doi.org/10.1021/acsmchemlett.9b00453)
14. Klug, D. M.; Tschiegg, L.; Diaz, R.; Rojas-Barros, D.; Perez-Moreno, G.; Ceballos, G.; García-Hernández, R.; Martínez-Martínez, M. S.; Manzano, P.; Ruiz, L. M.; Caffrey, C. R.; Gamarro, F.; Pacanowska, D. G.; **Ferrins, L.**; Navarro, M.; Pollastri, M. P., Hit-to-Lead Optimization of Benzoxazepinoindazoles As Human African Trypanosomiasis Therapeutics. *Journal of Medicinal Chemistry* **2020**, *63* (5), 2527-2546. DOI: [10.1021/acs.jmedchem.9b01506](https://doi.org/10.1021/acs.jmedchem.9b01506)
15. Varghese, S.; Rahmani, R.S.; Russell, S.; Deora, G.S.; **Ferrins, L.**; Toynton, A.; Jones, A.; Sykes, M.; Kessler, A.; Eufrásio, A.; Cordeiro, A.T.; Sherman, J.; Rodriguez, A.; Avery, V.M.; Piggott, M.; Baell, J.B., Discovery of Potent N-Ethylurea Pyrazole Derivatives as Dual Inhibitors of *Trypanosoma brucei* and *Trypanosoma cruzi*. *ACS Medicinal Chemistry Letters* **2020**, *11* (3), 278-285. DOI: [10.1021/acsmchemlett.9b00218](https://doi.org/10.1021/acsmchemlett.9b00218)
16. Klug, D. M.; Diaz-Gonzalez, R.; Pérez-Moreno, G.; Ceballos-Pérez, G.; García-Hernández, R.; Gomez-Pérez, V.; Ruiz-Pérez, L. M.; Rojas-Barros, D. I.; Gamarro, F.; González-Pacanowska, D.; Martínez-Martínez, M. S.; Manzano, P.; **Ferrins, L.**; Caffrey, C. R.; Navarro, M.; Pollastri, M. P., Evaluation of a class of isatinoids identified from a high-throughput screen of human kinase inhibitors as anti-Sleeping Sickness agents. *PLOS Neglected Tropical Diseases* **2019**, *13*, e0007129. DOI: [10.1371/journal.pntd.0007129](https://doi.org/10.1371/journal.pntd.0007129)
17. Bachovchin, K. A.; Sharma, A.; Bag, S.; Klug, D. M.; Schneider, K. M.; Singh, B.; Jalani, H. B.; Buskes, M. J.; Mehta, N.; Tanghe, S.; Momper, J. D.; Sciotti, R. J.; Rodriguez, A.; Mensa-Wilmot, K.; Pollastri, M. P.; **Ferrins, L.***, Improvement of Aqueous Solubility of Lapatinib-Derived Analogues: Identification of a Quinolinimine Lead for Human African Trypanosomiasis Drug Development. *Journal of Medicinal Chemistry* **2019**, *62*, 665-687. DOI: [10.1021/acs.jmedchem.8b01365](https://doi.org/10.1021/acs.jmedchem.8b01365)
18. **Ferrins, L.**; Sharma, A.; Thomas, S. M.; Mehta, N.; Erath, J.; Tanghe, S.; Leed, S. E.; Rodriguez, A.; Mensa-Wilmot, K.; Sciotti, R. J.; Gillingwater, K.; Pollastri, M. P. Anilinoquinoline based inhibitors of trypanosomatid proliferation. *PLOS Neglected Tropical Diseases* **2018**, *12*, e0006834. DOI: [10.1371/journal.pntd.0006834](https://doi.org/10.1371/journal.pntd.0006834)
19. Mehta, N.; **Ferrins, L.**; Leed, S.E.; Sciotti, R.J.; Pollastri, M.P., Optimization of Physicochemical Properties for 4-Anilinoquinoline Inhibitors of *Plasmodium falciparum* Proliferation. *ACS Infectious Diseases* **2018**, *4* (4), 577-591. DOI: [10.1021/acsinfectdis.7b00212](https://doi.org/10.1021/acsinfectdis.7b00212)
20. **Ferrins, L.**; Pollastri, M.P., The Importance of Collaboration between Industry, Academics, and Nonprofits in Tropical Disease Drug Discovery. *ACS Infectious Diseases* **2018**, *4* (4), 445-448. DOI: [10.1021/acsinfectdis.7b00208](https://doi.org/10.1021/acsinfectdis.7b00208)
21. Russell, S.; Rahmani, R.; Jones, A.J.; Newson, H.L.; Neilde, K.; Cutillo, I.; Khajouei, M.R.; **Ferrins, L.**; Qureshi, S.; Nguyen, N.; Martínez-Martínez, M.S.; Weaver, D.F.; Kaiser, M.; Riley, J.; Thomas, J.; De Rycker, M.; Read, K.D.; Flematti, G.R.; Ryan, E.; Tanghe, S.; Rodriguez, A.; Charman, S.A.; Kessler, A.;

- Avery, V.M.; Baell, J.B.; Piggott, M.J., Hit-to-lead optimization of a novel class of potent, broad-spectrum trypanosomacides. *Journal of Medicinal Chemistry* **2016**, *59*, 9686-9720. DOI: [10.1021/acs.jmedchem.6b00442](https://doi.org/10.1021/acs.jmedchem.6b00442)
22. Stoessel, D.; Nowell, C. J.; Jones, A. J.; **Ferrins, L.**; Ellis, K. M.; Riley, J.; Rahmani, R.; Read, K. D.; McConville, M. J.; Avery, V. M.; Baell, J. B.; Creek, D. J., Metabolomics and lipidomics reveal perturbation of sphingolipid metabolism by a novel anti-trypanosomal 3-(oxazolo[4,5-*b*]pyridine-2-yl)anilide. *Metabolomics* **2016**, *12* (7), 1-14. DOI: [10.1007/s11306-016-1062-1](https://doi.org/10.1007/s11306-016-1062-1)
23. Rahmani, R.; Ban, K.; Jones, A. J.; **Ferrins, L.**; Ganame, D.; Sykes, M. L.; Avery, V. M.; White, K. L.; Ryan, E.; Kaiser, M.; Charman, S. A.; Baell, J. B., 6-Arylpyrazine-2-carboxamides: A new core for *Trypanosoma brucei* inhibitors. *Journal of Medicinal Chemistry* **2015**, *58*, 6753-6765. DOI: [10.1021/acs.jmedchem.5b00438](https://doi.org/10.1021/acs.jmedchem.5b00438)
24. **Ferrins, L.**; Gazdik, M.; Rahmani, R.; Sykes, M. L.; Jones, A. J.; Avery, V. M.; White, K. L.; Ryan, E.; Charman, S. A.; Kaiser, M.; Bergstrom, C. A. S.; Baell, J. B., Pyridyl benzamides as a novel class of potent inhibitors for the kinetoplastid *Trypanosoma brucei*. *Journal of Medicinal Chemistry* **2014**, *57*, 6393-6402. DOI: [10.1021/jm500191u](https://doi.org/10.1021/jm500191u)
25. Baell, J. B.; **Ferrins, L.**; Falk, H.; Nikolakopoulos, G., PAINS: Relevance to Tool Compound Discovery and Fragment-Based Screening. *Australian Journal of Chemistry* **2013**, *66*, 1483-1494. DOI: [10.1071/CH13551](https://doi.org/10.1071/CH13551)
26. **Ferrins, L.**; Rahmani, R.; Baell, J. B. Drug discovery and human African trypanosomiasis: a disease less neglected? *Future Medicinal Chemistry* **2013**, *5*, 1801-1841. DOI: [10.4155/fmc.13.162](https://doi.org/10.4155/fmc.13.162)
27. **Ferrins, L.**; Rahmani, R.; Sykes, M. L.; Jones, A. J.; Avery, V. M.; Teston, E.; Almohaywi, B.; Yin, J.; Smith, J.; Hyland, C.; White, K. L.; Ryan, E.; Campbell, M.; Charman, S. A.; Kaiser, M.; Baell, J. B., 3-(Oxazolo[4,5-*b*]pyridin-2-yl)anilides as a novel class of potent inhibitors for the kinetoplastid *Trypanosoma brucei*, the causative agent for human African trypanosomiasis. *European Journal of Medicinal Chemistry* **2013**, *66*, 450-465. DOI: [10.1016/j.ejmech.2013.05.007](https://doi.org/10.1016/j.ejmech.2013.05.007)

Book chapters

1. Fu, C.; Cooper, G.I.D.; **Ferrins, L.** Cysteine Protease Inhibitors for Infectious Diseases. In *Medicinal Chemistry Reviews*. Bronson, J.J., Eds. ACS Publications, 2021.
2. Caffrey, C. R.; Steverding, D.; Ferreira, R. S.; de Oliveira, R. B.; O'Donoghue, A. J.; Monti, L.; Ballatore, C.; Bachovchin, K. A.; **Ferrins, L.**; Pollastri, M. P.; Zorn, K. M.; Foil, D. H.; Clark, A. M.; Mottin, M.; Andrade, C. H.; de Siqueira-Neto, J. L.; Ekins, S., Drug Discovery and Development for Kinetoplastid Diseases. In *Burger's Medicinal Chemistry and Drug Discovery*. DOI: [10.1002/0471266949.bmc235.pub2](https://doi.org/10.1002/0471266949.bmc235.pub2)
3. Spaulding, A.; Gallerstein, M. F.; **Ferrins, L.** Drug Discovery and Development for Human African Trypanosomiasis, in *Neglected Tropical Diseases: Drug Discovery and Development*, Swinney, D.; Pollastri, M., Eds. Wiley-VCH Verlag GmbH: Weinheim, Germany, 2019. DOI: [10.1002/9783527808656.ch5](https://doi.org/10.1002/9783527808656.ch5)

Patents

1. Parks, J.; Sanders, B.; **Ferrins, L.** Inhibitors of coronavirus papain-like protease. Provisional Application Serial No. 63/454,205.
Description: Provisional patent application filing disclosing the identification of the first, small molecule, covalent modulators of PLpro for coronaviruses. These compounds could provide opportunities to develop therapeutics across the viral family and continue to be developed with the view to obtaining developable compounds should the need arise.
2. Baell, J.B.; Piggott, M.; Russell, S.; Toynton, A.; Rahmani, R.S.; **Ferrins, L.**; Nguyen, N., Heterocyclic compounds and use of same. Australia WO/2015/172196

Description: Novel heterocyclic compounds are disclosed which display useful efficacy in the treatment of diseases caused by trypanosomatids. Particularly, the compounds of the invention are useful in the treatment of human African trypanosomiasis and/or Chagas disease and/or Animal African trypanosomiasis (nagana). They are cheap and easy to make, efficacious and safe.

Commentaries

- Ferrins, L.;** Olson, M. E.; Haranahalli, K.; Grenier-Davies, M. C.; Boudreau, M. W.; Matagne, B.; Donckele, E. J.; Borsari, C., YMCC and YSN: An Opportunity for Scientific and Cultural Exchange. *Journal of Medicinal Chemistry* **2023**, *66* (17), 11591-11592. DOI: [10.1021/acs.jmedchem.3c01401](https://doi.org/10.1021/acs.jmedchem.3c01401)
Cross published in *ACS Medicinal Chemistry Letters* **2023**, *14* (9), 1129-1130. DOI: [10.1021/acsmmedchemlett.3c00337](https://doi.org/10.1021/acsmmedchemlett.3c00337)
- Blanco, M.-J.; Bryant-Friedrich, A.; Georg, G.; Ali, A.; Ornstein, P. L.; **Ferrins, L.;** Trippier, P. C., Excellence in Medicinal Chemistry: Celebrating ACS Medicinal Chemistry Division (MEDI) Awards. A Call for Nominations. *Journal of Medicinal Chemistry* **2023**, *66* (11), 7067-7069. DOI: [10.1021/acs.jmedchem.3c00802](https://doi.org/10.1021/acs.jmedchem.3c00802)
- Ferrins, L.;** Schwarz, J. B., Highlighting the 2020–2021 ACS Division of Medicinal Chemistry Award Winners. *Journal of Medicinal Chemistry* **2022**, *65* (18), 11891-11893. DOI: [10.1021/acs.jmedchem.2c00975](https://doi.org/10.1021/acs.jmedchem.2c00975)
- Ferrins, L.;** Araujo, E.; Boudreau, M. W.; Grenier-Davies, M. C.; Haranahalli, K.; Journigan, V. B.; Klug, D. M.; Olson, M. E., Engaging the Medicinal Chemists of Tomorrow. *Journal of Medicinal Chemistry* **2022**, *65* (9), 6353-6355. DOI: [10.1021/acs.jmedchem.2c00424](https://doi.org/10.1021/acs.jmedchem.2c00424)
- Cesa, M.; Chao, I.; Droscher, M.; **Ferrins, L.;** Shuai, Z.; Garcia-Martinez, J., An Organizational Structure for the Future. *Chemistry International* **2022**, *44* (2), 34-37. DOI: [10.1515/ci-2022-0228](https://doi.org/10.1515/ci-2022-0228)
- Borges, J.; **Ferrins, L.;** Rodríguez, A.M.; Menche, M.; Pournara, D.T.; Väyrynen, K.; Milić, J.; Aponte-Santini, J.C., A Virtual Journey in Empowering Early-Career Chemists. *ChemistryViews*, **2021**. DOI: [10.1002/chemv.202100001](https://doi.org/10.1002/chemv.202100001)
- Ferrins, L.;** Chao, I.; Cesa, M., Stakeholders' Thoughts on the Future of IUPAC. In *Chemistry International*, **2021**; Vol. 43, number: 2 p 36-39. DOI: [10.1515/ci-2021-0213](https://doi.org/10.1515/ci-2021-0213)
- Urbina-Blanco, C. A.; Jilani, S. Z.; Speight, I. R.; Bojdys, M. J.; Frišćić, T.; Stoddart, J. F.; Nelson, T. L.; Mack, J.; Robinson, R. A. S.; Waddell, E. A.; Lutkenhaus, J. L.; Godfrey, M.; Abboud, M. I.; Aderinto, S. O.; Aderohunmu, D.; Bibič, L.; Borges, J.; Dong, V. M.; **Ferrins, L.;** Fung, F. M.; John, T.; Lim, F. P. L.; Masters, S. L.; Mambwe, D.; Thordarson, P.; Titirici, M.-M.; Tormet-González, G. D.; Unterlass, M. M.; Wadle, A.; Yam, V. W. W.; Yang, Y.-W., A Diverse View of Science to Catalyse Change. *Journal of the American Chemical Society* **2020**, *142* (34), 14393-14396. DOI: [10.1021/jacs.0c07877](https://doi.org/10.1021/jacs.0c07877)
- Ferrins, L.;** Dunne, C.; Borges, J.; Fung, F.M., Reflecting on a Year of Elements. In *Chemistry International*, **2020**; Vol. 42, number 3, p 3-5. DOI: [10.1515/ci-2020-0302](https://doi.org/10.1515/ci-2020-0302)
- Mourant, B.; **Ferrins, L.;** Carenco, S.; LaFranzo, N.; Rawlins Catherine, M., The Inaugural IYCN General Assembly. In *Chemistry International*, **2020**; Vol. 42, p 16. DOI: [10.1515/ci-2020-0105](https://doi.org/10.1515/ci-2020-0105)
- Ferrins, L.;** Llabani, E.; Dunne, C., IUPAC and IYCN: Forging New Connections to Support Younger Chemists Worldwide. In *Chemistry International*, **2018**; Vol. 40, p 11. DOI: [10.1515/ci-2018-0305](https://doi.org/10.1515/ci-2018-0305)
- Ferrins, L.;** Rawlins, C., The International Younger Chemists Network (IYCN): Building Connections with Our Peers Worldwide. *NUCLEUS* (Publication of the Northeast Section of the American Chemical Society), **2018**; Vol. XCVI, No. 9, p 2
- Koester, V.; Bueno, P.C.P.; Carenco, S.; Dunne, C.; **Ferrins, L.;** Llabani, E.; Offiong, N.-A.; Vorotyntsev, I.V., The Future of Chemistry is Global. *ChemViews interview*, **2017**. DOI: [10.1002/chemv.201700099](https://doi.org/10.1002/chemv.201700099)

Invited Presentations

1. “Synergizing Phenotypic and Structure-Based Strategies in Infectious Disease Drug Discovery” San Diego State University, Translational Science Lecture Series, March **2024**.
2. “Neglected tropical diseases: looking to kinase inhibitors for opportunities” 30th Edition Summer School in Pharmaceutical and Medicinal Chemistry (XXX EVQFM), January **2024** – **Plenary**.
3. “Synergizing Phenotypic and Structure-Based Strategies in Infectious Disease Drug Discovery” Rutgers University, December **2023**.
4. “Neglected tropical diseases: looking to kinase inhibitors for opportunities” END (End Neglected Diseases) Initiative, November **2023**.
5. “Neglected tropical diseases: looking to kinase inhibitors for opportunities” BrazMedChem 2023, October **2023**.
6. “The importance of ADME/DMPK and PK-PD” LOLA10: Advancing neglected Diseases in Endemic Areas, October **2023**.
7. “Aqueous solubility optimization leads to a quinolinimine lead for human African trypanosomiasis” Northeastern Regional Meeting of the American Chemical Society, June **2023**.
8. “GSK3 β as a drug target in kinetoplastids” Boston Area Parasitologists Seminar, May **2023**.
9. “Leishmania therapies: looking to kinase inhibitors for opportunities” 16th Winter Conference on Medicinal & Bioorganic Chemistry, February **2023**.
10. “Leishmania therapies: looking to kinase inhibitors for opportunities” International Caparica Conference on Leishmaniasis, October **2022**.
11. “Distributed Drug Discovery Drives Infectious Disease Research” University of Lisbon, October **2022**.
12. “Neglected Tropical Disease Drug Discovery: A Collaborative Effort” END (End Neglected Diseases) Initiative, October **2022**.
13. “Lead Optimization Case Study” Drugs for Neglected Diseases *initiative* workshop “Taking novel drugs from Lab to Clinic: Concepts and Case Studies”, March **2022**.
14. “Neglected tropical disease drug discovery: a collaborative effort” END (End Neglected Diseases) Initiative, September **2021**.
15. “Repurposing kinase inhibitor chemotypes as antiparasitic agents” Drugs for Neglected Diseases *initiative* Structure Based Drug Discovery Meeting, May **2021**.
16. “Distributed drug discovery for neglected tropical disease drug discovery” New England Neglected Tropical Diseases Consortium webinar, March **2021**.
17. “The Importance of Collaboration in NTD Research” END (End Neglected Diseases) Initiative, October **2020**.
18. “Distributed drug discovery and its application in neglected tropical diseases research” Beilstein Open Science Symposium, Rüdeshheim, Germany, October **2019**.
19. “The importance of collaborative networks” ACS National Meeting, San Diego, USA, August **2019**.
20. “Human kinase repurposing strategies for neglected tropical disease drug discovery” Better Leads, Better Drugs - Innovation in Screening Libraries, Boston, USA, May **2019**.
21. “Younger chemists making a positive change” 7th EuCheMS Conference, Liverpool, UK, August **2018**.
22. “Local and global chemistry initiatives for young chemists” ACS National Meeting, Boston, USA, August **2018**.
23. “Hit-to-lead studies and pharmacophore identification within a novel class of anti-trypanosomal agents” ACS National Meeting, Washington, USA, September **2017**.
24. “Hit-to-lead studies and pharmacophore identification within a novel class of anti-trypanosomal agents” 6th EuCheMS Conference, Sevilla, Spain, August **2016** – **Keynote**.

Conference Presentations

*Poster Presenter, oral presentations highlighted

1. “Targeting phosphatidylinositol-3-kinases as potential therapies for *Balamuthia mandrillaris* infection” Harati, T.,* **Ferrins, L.**; Ondrechen, M.J. Northeastern Bioengineering Symposium, Boston, MA, USA, June 2024.
2. “Medicinal chemistry optimization of the pyrazolopyridazine scaffold against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** Boston Symposium on Organic and Bioorganic Chemistry, Boston, MA, USA, October 2023 – **Student Oral Presentation.**
3. “Pyrazolopyridazine chemotype medicinal chemistry optimization against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** New England NTD Consortium Meeting, Boston, MA, USA, September 2023 – **Student Oral Presentation.**
4. “Pyrazolopyridazine chemotype optimization against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** Gordon Research Seminar, New London, New Hampshire, USA, August 2023.
5. “Design, synthesis, and biological evaluation of 2-aminopyrimidines as novel *Leishmania Infantum* GSK-3 β inhibitors aided by in silico tools” Guerra de Oliveira, R.,* Zonzini, P., Mottinelli, M., Eyermann, C.J., Diaz-Gonzalez, R., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Domínguez-Asenjo, B., Pollastri, M.P., Monteiro, J.L., Drewes, C.C., Riboldi, G.P., Barreiro, G., Gonzalez Pacanowska, D., Reguera, R., Couñago, R.M., **Ferrins, L.** Gordon Research Seminar, New London, New Hampshire, USA, August 2023.
6. “Pyrazolopyridazine chemotype optimization against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** Gordon Research Conference, New London, New Hampshire, USA, August 2023.
7. “Design, synthesis, and biological evaluation of 2-aminopyrimidines as novel *Leishmania Infantum* GSK-3 β inhibitors aided by in silico tools” Guerra de Oliveira, R.,* Zonzini, P., Mottinelli, M., Eyermann, C.J., Diaz-Gonzalez, R., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Domínguez-Asenjo, B., Pollastri, M.P., Monteiro, J.L., Drewes, C.C., Riboldi, G.P., Barreiro, G., Gonzalez Pacanowska, D., Reguera, R., Couñago, R.M., **Ferrins, L.** 2023 Chemistry Spotlight @Pfizer, Cambridge, MA USA, August 2023.
8. “Optimization of a pyrazolopyridazine chemotype against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** American Chemical Society Northeast Regional Meeting, lighting talk, Boston, MA, USA, August 2023 – **Student Oral Presentation.**
9. “Optimization of a pyrazolopyridazine scaffold against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** American Chemical Society National Fall Meeting, San Francisco, CA, USA, August 2023 – **Student Oral Presentation.**
10. “Optimization of a pyrazolopyridazine scaffold against *Trypanosoma cruzi* GSK-3 β ” Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Córdón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** ACSMEDI-EFMC MedChem Frontiers, Boston, MA, USA, June 2023.
11. “Structure activity relationship of a novel series as antifungal agents against *Candidia albicans*” Golani, L.,* Acosta-Zaldivar, M., Dichiaro, M., Yang, G., Pollastri, M.P., Kohler, J.R., **Ferrins, L.** ACSMEDI-EFMC MedChem Frontiers, Boston, MA, USA, June 2023.

12. "Optimization of a pyrazolopyridazine scaffold against *Trypanosoma cruzi* GSK-3 β " Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Cordón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** Northeastern Regional Meeting of the American Chemical Society, Boston, MA, USA, June **2023**.
13. "Design and synthesis of novel series as antifungal agents against *Candida albicans*" Acosta-Zaldivar, M., Golani, L.,* Dichiaro, M., Yang, G., Pollastri, M.P., Köhler, J., **Ferrins, L.** Northeastern Regional Meeting of the American Chemical Society, June **2023**.
14. "Lead Optimization of NEU-4438 For Human African Trypanosomiasis Drug Development" Gadekar, P.G., Sharma, A., Kumar, A.,* Hoffman, B., Jumar, G., Pollastri, M.P., Mensa-Wilmot, K., **Ferrins, L.** Northeastern Regional Meeting of the American Chemical Society, June **2023**.
15. "Optimization of a pyrazolopyridazine scaffold against *Trypanosoma cruzi* GSK-3 β " Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Cordón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., **Ferrins, L.** Northeastern Regional Meeting of the American Chemical Society, June **2023**.
16. "Design, synthesis and biological evaluation of 2-aminopyrimidines as novel *Leishmania infantum* GSK-3 β inhibitors aided by *in silico* tools" Guerra de Oliveira, R.,* Gunaganti, N., Zonzini, P., Mottinelli, M., Eyermann, C.J., Álvarez-Bardón, M., Diaz-Gonzalez, R., Bosch-Navarrete, C., Cordón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Domínguez-Asenjo, B., Pollastri, M.P., Monteiro, J.L., Drewes, C.C., Riboldi, G.P., Barreiro, G., Gonzalez Pacanowska, D., Reguera, R., Couñago, R.M., **Ferrins, L.** 24th Annual Northeast Student Chemistry Research Conference (NSCRC), April **2023**.
17. "Optimization of a pyrazolopyridazine chemotype against *Trypanosoma cruzi* GSK-3 β " Millard, C.,* Diaz-Gonzalez, R., Eyermann, C. J., Bosch-Navarrete, C., Cordón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Pollastri, M. P., Pacanowska, D. G., Ferrins, L. Northeast Student Chemistry Research Conference, Boston, MA USA, April **2023**
18. "Optimization of AZD5438, a pan human CDK inhibitor, for *Leishmania infantum* GSK-3 β " Guerra de Oliveira, R.,* Gunaganti, N., Zonzini, P., Mottinelli, M., Eyermann, C.J., Álvarez-Bardón, M., Diaz-Gonzalez, R., Bosch-Navarrete, C., Cordón-Obras, C., Pérez-Moreno, G., Ceballos-Perez, G., Domínguez-Asenjo, B., Pollastri, M.P., Monteiro, J.L., Drewes, C.C., Riboldi, G.P., Barreiro, G., Gonzalez Pacanowska, D., Reguera, R., Couñago, R.M., **Ferrins, L.** Protein Kinases of Parasitic Protozoa V, Orlando, FL USA, April **2023**.
19. "Hit-to-lead optimization of indole-2-carboxamides for Chagas disease" Guerra de Oliveira, R.,* Dessoy, M.A., dos Santos, D.A., Fernando Nascimento de Oliveira, L., Mollo, M., Lee, E., Duarte, S., Krogh, R., Gomes Ferreira, L., Chelucci, R., Dichiaro, M., Feltrin, C., da Silva, A.C., **Ferrins, L.**, Borsoi Moraes, C., Andricopulo, A.D., Cruz, L., Muller Kratz, J., Sjö, P., Mowbray, C., Carlos Dias, L. 16th Winter Conference on Medicinal & Bioorganic Chemistry- Steamboat Springs, CO USA, February **2023**.
20. "Medicinal Chemistry Optimization of Small Molecule Inhibitors for Chagas Disease". Koid, A.,* Gunaganti, N., Singh, B., perez-Moreno, G., Bosch-Navarrete, C., Ness, M., Foster, L., Sharif, N., Gonzales-Pacanowska, D., **Ferrins, L.**, Pollastri M.P. Northeast Regional Meeting of the American Chemical Society, October **2022**.
21. "Indoles Hit-to-Lead for Chagas Disease: Lessons Learned within the LOLA consortium". Cruz, L.,* Corrêa da Silva, A., Feltrin, C., Dichiaro, M., **Ferrins, L.**, Borsoi Moraes, C., Sjö, P., Andricopulo, A.D., Mowbray, C., Guerra de Oliveira, R., Aurélio Dessoy, M., Araujo dos Santos, D., Fernando Nascimento de Oliveira, L., Cruz, Mollo, M., Lee, E., Duarte, S., Krogh, R., Chelucci, R., Luiz Gomes Ferreira, L., Muller Kratz, J., Carlos Dias, L. 10th Brazilian Symposium in Medicinal Chemistry (BrazMedChem 2022), September **2022**.
22. "Optimizing small molecules for improved potency against the parasite causing Chagas Disease" Koid, A.,* Gunaganti, N., Singh, B., Diaz-Gonzales, R., Ceballos-Perez, G., Rojas, D., Gonzales-Pacanowska, D., **Ferrins, L.**, Pollastri M.P. Empowering Women in Organic Chemistry Conference, June **2022**.

23. "Optimization of a cinnoline scaffold against *Plasmodium falciparum*" Millard, C.,* Arendse, L., **Ferrins, L.**, Pollastri, M.P., Chibale, K. Empowering Women in Organic Chemistry Conference, June **2022**.
24. "Optimization of a cinnoline scaffold against *Plasmodium falciparum*" Millard, C.,* Arendse, L., **Ferrins, L.**, Pollastri, M.P., Chibale, K. Malaria" Confronting Challenges from Drug Discovery to Treatment, April **2022**.
25. "Kinase inhibitor chemotypes affords opportunities to target multiple disease-causing parasites" **Ferrins, L.** ACS National Meeting, April **2022** – **Oral Presentation**
26. "4-Aminocinnolines: multiparameter optimization of therapeutics for malaria" Millard, C.,* Spaulding, A., Devine, W., Sciotti, R.J., Campbell, R.F., **Ferrins, L.**, Pollastri, M.P. Medicinal Chemistry Gordon Research Symposium and Conference, October **2021**.
27. "Target based approach for covalent inhibitors of parasitic DHODH" Chauhan, J.,* Eyermann, C.J., Froes, T.Q., Nonato, M.C., Pollastri, M.P., **Ferrins, L.** Medicinal Chemistry Gordon Research Symposium and Conference, October **2021**.
28. "Distributed drug discovery applied to Chagas disease" Simpson, Q., Quotadamo, A., Millard, C., Perry, B., Sjö, P., Pollastri, M.P., **Ferrins, L.** ACS National Meeting, April **2021**.
29. "Lapatinib-derived analogs with improved ADME for neglected tropical diseases" **Ferrins, L.**, Sharma, A., Bachovchin, K., Bag, S., Silva, L., Devine, W., Klug, D., Mehta, N., Woodring, J., Wiedman, J., Mensa-Wilmot, K., Pollastri, M.P. 7th EuCheMS Conference, Liverpool, UK, August **2018** – **Oral presentation.**
30. "Lead repurposing for neglected tropical diseases: Strategies for optimization of ADME properties of kinase inhibitor chemotypes" **Ferrins, L.**, Sharma, A., Bachovchin, K., Bag, S., Silva, L., Devine, W., Klug, D., Mehta, N., Woodring, J., Wiedman, J., Mensa-Wilmot, K., Pollastri, M.P. ACS National Meeting, Boston, USA, August **2018** – **Oral presentation.**
31. "Young chemists leading positive change" **Ferrins, L.**, Rawlins, C.A. ACS National Meeting, Boston, USA, August **2018** – **Oral presentation.**
32. "Target repurposing as a strategy to expedite drug discovery for antimalarials" **Ferrins, L.**,* Mehta, N., Sciotti, R.J., Vesely, B., Pollastri, M.P. Military Health System Research Symposium, September **2017**.
33. "Hit-to-lead studies and pharmacophore identification within a novel class of anti-trypanosomal agents" **Ferrins, L.**,* Diaz, R., Navarro, M., Pollastri, M.P. Gordon Research Symposium, USA, August **2017**.
34. "Early SAR exploration of a trypanosomacidal compound cluster as identified by high-throughput screening" **Ferrins, L.**,* Diaz, R., Cordon-Obras, C., Rojas-Barros, D.I., Navarro, M., Pollastri, M.P. Boston Symposium on Organic and Bioorganic Chemistry, Boston, USA, October **2015**.
35. "Hit-to-lead optimisation of a new class of compound to treat human African trypanosomiasis" **Ferrins, L.**,* Rahmani, R., Russell, S., Jones, A., Avery, V., Sykes, M., Piggott, M.J., Baell, J.B. ACS National Meeting, Boston, USA, August **2015**.
36. "Hit-to-lead optimisation of a compound class with trypanosomacidal activity" **Ferrins, L.**, Rahmani, R., Russell, S., Jones, A., Nguyen, N., Kaiser, M., Charman, S., Avery, V., Piggott, M.J., Baell, J.B. Royal Australian Chemical Institute National Congress, Adelaide, Australia, December **2014** – **Oral Presentation.**
37. "Novel compounds to treat African and American trypanosomiasis" **Ferrins, L.**,* Rahmani, R., Teston, E., Avery, V., Sykes, M., White, K., Kaiser, M., Baell, J.B. EFMC-ISMC Conference, Lisbon, Portugal, September **2014**.
38. "Oxazolopyridines as *Trypanosoma brucei* and *Trypanosoma cruzi* inhibitors" **Ferrins, L.** 5th EuCheMS Conference, Istanbul, Turkey, August **2014** – **Oral Presentation.**
39. "Can we cure the sleeping bug?" **Ferrins, L.** 3 Minute Thesis (3MT) Preliminary rounds and Faculty of Pharmacy and Pharmaceutical Sciences final, Melbourne, Australia, July **2014** – **Oral Presentation.**

40. “Hit-to-lead optimisation of a new class of compound to treat human African trypanosomiasis” **Ferrins, L.,*** Rahmani, R., Teston, E., Avery, V., Sykes, M., White, K., Kaiser, M., Baell, J.B. 38th Annual synthesis symposium, Melbourne, Australia, December **2013**.
41. “Hit-to-lead optimisation of a new class of compound to treat human African trypanosomiasis” **Ferrins, L.** 8th Annual postgraduate research symposium, Melbourne, Australia, November **2013** – **Oral presentation**.
42. “Hit-to-lead optimisation of a new class of compound to treat human African trypanosomiasis” **Ferrins, L.,*** Rahmani, R., Teston, E., Avery, V., Sykes, M., White, K., Kaiser, M., Baell, J.B. CTx symposium, Melbourne, Australia, October **2013**.
43. “Towards the cure for sleeping sickness” **Ferrins, L.,*** Avery, V., Ban, K., Ganame, D., Gazdik, M., Jones, A., Rahmani, R., Sykes, M., Teston, E., & Baell, J.B. 37th Annual synthesis symposium, Melbourne, Australia, December **2012**.
44. “Towards the cure for sleeping sickness” **Ferrins, L.,*** Avery, V., Ban, K., Ganame, D., Gazdik, M., Jones, A., Rahmani, R., Sykes, M., Teston, E., & Baell, J.B. Fragment based drug discovery, Melbourne, Australia, November **2012**.
45. “Towards the cure for sleeping sickness” **Ferrins, L.,*** Avery, V., Ban, K., Ganame, D., Gazdik, M., Jones, A., Rahmani, R., Sykes, M., Teston, E., & Baell, J.B. 7th Annual postgraduate research symposium, Melbourne, Australia, September **2012**.

Awards and Scholarships

- **2023** – Henry A. Hill Award for Outstanding Service to the Northeastern Section
- **2023** – College of Science CONNECTS award for outstanding contributions to the College
- **2023** – College of Science, Faculty Award for Excellence in Mentorship
- **2018** – Young Chemists Crossing Borders Exchange Program Representative to Liverpool, UK, for the Northeast Section of the ACS, Younger Chemists Committee (<https://acsycc.org/international/yccb/>)
- **2018** – Awarded Nickel on the Periodic Table of Younger Chemists (<https://iupac.org/100/pt-of-chemist/>)
- **2016** – Young Chemists Crossing Borders Exchange Program Representative to Seville, Spain, for the Northeast Section of the ACS, Younger Chemists Committee
- **2014** – BASF Victorian Young Achiever of the Year award – Science and Technology (<https://awardsaustralia.com/young-achiever-awards/vic/>)
- **2014** – European Federation of Medicinal Chemistry – International symposium on medicinal chemistry, Student Bursary, Portugal
- **2014** – CTx Travel Scholarship, 5th European chemistry congress (EuCheMS), Turkey
- **2012** – Australian Postgraduate Award, Monash University
- **2011** – Australian Postgraduate Award, La Trobe University
- **2011** – Biomolecular at the Beach, Student Bursary, Australia
- **2010** – Max O’Connor Prize (awarded for achieving the top mark in the chemistry honours program), La Trobe University

Current Research Students and Trainees

Post-doctoral Researchers (year joined)

1. Sam Spijkers-Shaw (2023)
2. Olaia Marti Mari (2023)

Graduate and Masters Student Researchers

1. Jess Pennington, Ph.D. (2024-2028)
2. Vinou Val, Ph.D. (2023-2027)
3. Jasmyn Genchev, Ph.D. (2023-2027)

- Hayden Motter, Ph.D. (2023-2027)

Undergraduate Researchers (semester joined)

- Samantha Lauer (Fall, 2023)
- Lydia Gomez (Summer 2, 2023)
- Rowan Waring (Summer 2, 2023). *Honors in Biochemistry (Summer 2023-Fall 2023)*
- Kaira Vo (Summer 1, 2023). *Capstone Research*
- Brynn Swanson (Fall, 2022). *BIOC 4991 Research Project*
- Navnit Kukreja (Fall, 2022). *BIOC 4991 Research Project*

Past Research Students and Trainees Mentored

Post-doctoral Researchers

- Shea Fern Lim, 2023 – 2023.
- Anil Kumar, 2022 – 2023. *Postdoctoral Researcher at University of Texas Medical Branch at Galveston*
- Pradip Gadekar, 2020 – 2023. *Research Scientist at Northeastern University*
- Jyoti Chauhan, 2020 – 2022. *Postdoctoral Researcher at Harvard Medical School*
- Quillon Simpson, 2019 – 2021. *Business Development Scientist at Collaborative Drug Discovery*

Graduate and Masters Student Researchers

- Ramon Guerra de Oliveira, Visiting Ph.D. Brazil (2022-2023).
- Bruna Fleck Godoi, Visiting M.Sc. Brazil (2022).
- Jonathan Burnett, Visiting Ph.D. United Kingdom (2022).

Undergraduate Researchers

- Lydia Steger-Wilson, Honors in Biochemistry, Fall 2023-Spring 2024. *Graduate Student at University of Wisconsin-Madison.*
- Tomás Kresina, Honors in Biochemistry, Fall 2023-Spring 2024.
- Janis Busse, Capstone Research, Summer 1, 2023.
- Mary Banick, Capstone Research Project, Spring, 2023.
- Rami Awad, Capstone Research Project, Spring, 2023.
- Grace Yang, BIOC 4991 Research Project, Spring 2023. *Graduate Student at Boston University.*
- Reagan Thompson, Capstone Research, Summer 1, 2022. *Graduate Student at UNC Chapel Hill.*
- Andrea Koid, Capstone Research Project & Biochemistry Honors, Fall 2022. *Graduate Student at NYU.*
- Christian Tapp, Senior Research, Fall 2022. *Scientist at Relay Therapeutics.*
- Oliver Galloway, Capstone Research Project, Summer 1 2022. *Medicinal Chemist at Alnylam*
- Ricardo Alvarado, Senior Research, Spring 2022. *Research Scientist at Novartis Institutes for BioMedical Research.*
- Crystal Le, Capstone Research, Fall 2021. *Research Associate at Sanofi.*
- Courtney Fu, Capstone Research Project, Fall 2021. *Clinical Pharmacology Fellow in 2023.*
- Millie Ness, Senior Research, Spring 2021. *Research Associate at FogPharma.*
- Bruno Quiroga, Spring 2021. *Research Associate at FogPharma.*
- Anson Huang, Honors Research Project, Fall 2020 – Spring 2020. *Senior Associate Scientist at Sanofi.*
- Gabriella Cooper, Capstone Research Project, Fall 2020. *Graduate Student at UCLA.*

Doctoral and Master's Degree Committee Membership

- Benjamin Liebson, Ph.D.
- Yulia Dikumar, Ph.D.
- Khaly Diagne, Ph.D.
- Caroline Millard, Ph.D.
- Alicia Wagner, Ph.D.

Service

Reviewer of Grant Applications

- **National Institutes of Health**

Year	Study Section	Title
2021	ZRG1 AIDC-B	Exploration of Antimicrobial Therapeutics and Resistance
2022	ZRG1 BCMB-G	Drug Discovery and Development SBIR/STTR proposals
2023	ZRG1 DCAI-B	Antiviral and Anti-Eukaryotic-Pathogen Drug Discovery and Mechanisms of Resistance
2023	ZRG1 MCST-M	Advancing Therapeutics
2023	2024/01 DMPA	Drug Discovery and Molecular Pharmacology A (DMPA)

- Czech Science Foundation
- **RIGHT Fund** (Public-Private Partnership funding agency in Korea dedicated to supporting global health research and development) Panel of Experts member; **2020-Present**

Editing and Peer Review for Scientific Journals

- **Editorial Advisory Board** – Journal of Medicinal Chemistry (2024-2026), ACS Medicinal Chemistry Letters (2024-2026)
- **Topic Editor** – Journal of Medicinal Chemistry (2022-2024)
- **Reviewer of Scientific Manuscripts** – ACS Medicinal Chemistry Letters, ACS Infectious Diseases, Journal of Medicinal Chemistry, RSC Medicinal Chemistry, Australian Journal of Chemistry, Bioorganic and Medicinal Chemistry, and Pathogens.

Scientific Meeting and Programming

- General Co-Chair of the **Northeastern Regional ACS Meeting (NERM) 2023**
- Program committee of the National Medicinal Chemistry Symposium **2024**, Seattle
- Long range planning committee for ACS MEDI Division; **2020-Present**

Additional Service to the Discipline

- Member of the **Joint Governance Committee** of a Wellcome Trust Funded program (2022-2024)
- **Reviewer of Ph.D. dissertation** – University of New South Wales, Monash University (2023)
- **2022** – WCC-Merck Research Award Selection committee
- **2019-2021** – Co-organizer of the Boston Global Women's Breakfast
- **2020** – Member of the [IUPAC Structure Review Group](#)
- **2019 & 2021** – Judge of the Northeast Student Chemical Research Conference
- **2014** – General committee member of the Parkville Postgraduate Association
- **2011** – President of La Trobe University Chemistry Krew (LUCK)
- **2008-2010** – Completed eight semesters of In2Science (this program involved working with high school students on a weekly basis to promote the careers and opportunities available in STEM; <http://in2science.org.au/>)

Service to Northeastern University

- **2023** – Senate Agenda Committee (SAC); Full-time Non-tenure-track Faculty Committee (FTNTTFC)
- **2021** – Co-Chair of the Research Policy Oversight Committee
- **2020-Present** – Member of the Chemistry and Chemical Biology Executive Committee
- **2020-2022, 2024** – Organizing committee member for the New England Future Faculty workshop
- **2020-Present** – Faculty mentor to the [END \(End Neglected Diseases\) Initiative](#)
- **2020 & 2021** – Hosted departmental colloquium speakers
- **2020-Present** – Participated in the graduate student Open House
- **2019, 2021, 2023** – Member of the merit review committee

- **2019 & 2022** – Participated in the NEU SOURCE fair

Professional Affiliations

1. Golden Key International Honour Society, **2009-Present**
2. Royal Australian Chemical Institute (RACI), MRACI, **2011-Present**;
<https://www.raci.org.au/divisions/medicinal-chemistry-chemical-biology-division>
 - *Medicinal Chemistry and Chemical Biology Student Representative* (2013-2014)
3. American Chemical Society (ACS), **2012-Present**
 - *MEDI Division Academic Councilor* (2024-2026)
 - *Norris Award Committee* (2023-2024)
 - *Chair of the Northeastern Regional Meeting (NERM2023) committee* (2022-2023)
 - *Young Investigator Symposium selection committee* (2023)
 - *Alternate councilor for Northeast Section of the ACS (NESACS; 2020-2023*;
<http://www.nesacs.org/>)
 - *Councilor for NESACS* (2024-2026)
 - *Director at large for NESACS* (2024-2026)
 - *Member-at-large ACS MEDI division, Chair of the Young Medicinal Chemistry Committee* (2020-2022)
 - *Member-at-large ACS MEDI division, Past Chair of the Young Medicinal Chemistry Committee* (2022-2023)
4. International Younger Chemists Network (IYCN), **2017-2022**; <https://www.iycnglobal.com/organization>
 - *Past-Chair* (2021-2022)
 - *Chair* (2019-2021)
 - *Vice-chair* (2018-2019)
 - *Chair of the Public Outreach subcommittee* (2017-2018)
5. Australian National Committee for Chemistry; **2021-2023**
 - *Ex-officio member* (2021-2023)