

**CURRICULUM VITAE****Paulo Cilas Moraes Lyra Junior, PhD**

Machine Learning - Software Engineer  
 Department of Machine Learning/Division of Quantitative Science  
 H. Lee Moffitt Cancer Center and Research Institute  
 12902 Magnolia Dr., Tampa, FL 33612  
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**Education**

02/03/2014 – 03/20/2018 **Doctor of Philosophy, Biotechnology**  
 Federal University of Espirito Santo  
 Direção do CCS - Prédio do Centro de Ciências da Saúde,  
 Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil

07/04/2011 – 10/31/2013 **Master of Public Health, Biotechnology**  
 Federal University of Espirito Santo  
 Direção do CCS - Prédio do Centro de Ciências da Saúde,  
 Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil

02/05/2007 – 07/13/2011 **Bachelor of Science, Pharmacy**  
 Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória,  
 EMESCAM  
 Av. Nossa Sra. da Penha, 2190 – Santa Luíza,  
 Vitória - ES, 29045-402, Brazil

**Postgraduate Training**

09/01/2022 – 06/23/2024 **Post-doctoral Research Fellow, Department of Epidemiology**  
 H. Lee Moffitt Cancer Center and Research Institute, Tampa – FL - US

09/01/2018 – 02/06/2020 **Post-doctoral Research Fellow, Department of Biotechnology**  
 Federal University of Espirito Santo  
 Direção do CCS - Prédio do Centro de Ciências da Saúde,  
 Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil

**Academic and Professional Appointments**

06/23/2024 – Current **Machine Learning Engineer, Department of Machine Learning**  
*H. Lee Moffitt Cancer Center and Research Institute*  
*Tampa – FL - US*

02/11/2022 – 08/17/2022 **Backend Developer, Cybersecurity**  
*ISH Tecnologia*  
*Rua Judite Maria Tovar Varejao, 355 – Enseada do Sua, Vitoria –*  
*ES, 29050-360, Brazil*

01/15/2020 – 07/03/2022 **Department Chair & Professor, Department of Pharmacy**  
*Centro Universitario FAEMA*  
*Avenida Machadinho, 4349, Ariquemes – RO, 76873-630, Brazil*

03/01/2018 – 08/06/2018 **Clinical Pharmacist, Oncology**  
*Evangelico de Vila Velha Hospital (HEVV)*  
*Rua Venus, s/n, Alecrim, Vila Velha – ES, 29118-060, Brazil*

10/02/2017 – 03/01/2018 **Clinical Pharmacist, General**  
*Dr. Jayme Santos Neves Hospital (HJSN)*  
*Av. Paulo Pereira Gomes, S/N - Morada de Laranjeiras,*  
*Serra - ES, 29166-828, Brasil*

01/17/2017 – 07/31/2017	<b>Voluntary Assistant Professor, Department of Pharmacy</b> Federal University of Espirito Santo Direção do CCS - Prédio do Centro de Ciências da Saúde, Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil
01/06/2014 – 12/15/2016	<b>PhD Exchange Visitors, Department of Epidemiology</b> <i>H. Lee Moffitt Cancer Center and Research Institute</i> Tampa – FL - US
06/05/2014 – 10/17/2014	<b>Temporary Assistant Professor, Department of Pharmacy</b> Federal University of Espirito Santo Direção do CCS - Prédio do Centro de Ciências da Saúde, Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil
01/17/2014 – 07/31/2014	<b>Voluntary Assistant Professor, Department of Pharmacy</b> Federal University of Espirito Santo Direção do CCS - Prédio do Centro de Ciências da Saúde, Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil
08/01/2013 – 04/30/2014	<b>Assistant Professor, Department of Pharmacy</b> <i>Faculdade de Filosofia, Ciências e Letras de Alegre</i> Rua Belo Amorim, 100 – Centro, Alegre – ES, 29500-000, Brazil
02/01/2012 – 12/01/2012	<b>Voluntary Assistant Professor, Department of Pharmacy</b> Federal University of Espirito Santo Direção do CCS - Prédio do Centro de Ciências da Saúde, Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Brazil
08/01/2009 – 07/13/2011	<b>Graduate Assistant (Research), Department of Pharmacy</b> Federal University of Espirito Santo Direção do CCS - Prédio do Centro de Ciências da Saúde, Av. Mal. Campos, 1468 - Maruípe, Vitória - ES, 29047-105, Braz

**Peer-Reviewed Publications**

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

#Authors contributed equally.

1. Yadav S, Bao R, Graham RP, Hu C, Hart SN, Na J, Boddicker N, Gnanaolivu RD, Smadbeck J, Ding L, Billadeau DD, Mayer AT, Majumder S, **Morais Lyra PC**, Lee AV, Monteiro AN, Villasboas JC, McWilliams R, Couch FJ. Genomic and Immune Landscape of Pancreatic Ductal Adenocarcinoma Associated with Germline Pathogenic Variants in ATM. Clin Cancer Res. 2025 Nov 3;31(21):4463-4474. DOI: 10.1158/1078-0432.CCR-24-4120.
2. Tessarollo NG, Guimarães IDS, Dos Santos DZ, Henriques TB, **Lyra-Junior PCM**, Carlos de Souza J, Pimenta TM, Martins BDS, Butzene SMS, Padilha JMS, Maciel LLF, Almeida JCA, Silva IV, Rangel LBA. Phosphodiesterase 7: a potential novel therapeutic target in ovarian cancer. Front Pharmacol. 2025 Jun 4;16:1566330. DOI: 10.3389/fphar.2025.1566330.
3. Huang H, Hu C, Na J, Hart SN, Gnanaolivu RD, Abozaid M, Rao T, Tecleab YA, CARRIERS Consortium, Pesaran T, **Lyra PCM**, Karam R, Yadav S, Nathanson KL, Domchek SM, de la Hoya M, Robson M, Mehine M, Bandlamudi C, Mandelker D, Monteiro ANA, Iversen ES, Boddicker N, Chen W, Richardson ME, Couch FJ. Functional evaluation and clinical classification of BRCA2 variants. Nature. 2025 Jan. DOI: 10.1038/s41586-024-08388-8.
4. Nepomuceno TC<sup>#</sup>, **Lyra P<sup>#</sup>**, Zhu J, Yi F, Martin RH, Lupu D, Peterson L, Peres LC, Berry A, Iversen ES, Couch FJ, Mo Q, Monteiro AN. Assessment of BRCA1 and BRCA2 Germline Variant Data from Patients With Breast Cancer in a Real-World Data Registry. JCO Clin Cancer Inform. 2024 May. DOI: 10.1200/CCI.23.00251.
5. Hu C, Huang H, Na J, Lumby C, Abozaid M, Holdren MA, Rao TJ, Karam R, Pesaran T, Weyandt JD, Csuy CM, Seelaus CA, Young CC, Fulk K, Heidari Z, **Morais Lyra PC Jr**, Couch RE, Persons B, Polley EC, Gnanaolivu RD, Boddicker NJ, Monteiro ANA, Yadav S, Domchek SM, Richardson ME, Couch FJ.

Functional analysis and clinical classification of 462 germline BRCA2 missense variants affecting the DNA binding domain. *Am J Hum Genet.* 2024 Mar.

DOI: 10.1016/j.ajhg.2024.02.002.

6. Huang H, Hu C, Na J, Hart SN, Gnanaolivu RD, Abozaid M, Rao T, Tecleab YA, Pesaran T, **Lyra PCM**, Karam R, Yadav S, Domchek SM, de la Hoya M, Robson M, Mehine M, Bandlamudi C, Mandelker D, Monteiro ANA, Boddicker N, Chen W, Richardson ME, Couch FJ. Saturation genome editing-based functional evaluation and clinical classification of BRCA2 single nucleotide variants. *bioRxiv [Preprint]*. 2023 Dec.  
DOI: 10.1101/2023.12.14.571597.
7. Zipinotti Dos Santos D, de Souza JC, Pimenta TM, Martins BS, Ribeiro Junior RS, Butzene SMS, Tessarolo NG, **Lyra-Jr PC** et al. The impact of lipid metabolism on breast cancer: a review about its role in tumorigenesis and immune escape. *Cell Commun Signal.* 2023 Jun.  
DOI: 10.1186/s12964-023-01178-1.
8. Fasching PA, Liu D, Scully S, Ingle JN, **Lyra-Jr PC**, Rack B, Hein A, Ekici A B, Reis A, Schneeweiss A, Tesch H, Fehm TN, Heinrich G, Beckmann MW, Ruebner M, Huebner H, Lambrechts D, Madden E, Shen J, Room J, Doheny K, Jenkins GD, Carlson EE, Li I, Fridley BL et al. Identification of two genetic loci associated with leukopenia after chemotherapy in Breast Cancer Patients. *Clin Can Res.* 2022 Aug.  
DOI: 10.1158/1078-0432.CCR-20-4774.
9. Mendoza-Fandiño G, **Lyra-Jr PC**, Nepomuceno TC, Harro CM, Woods NT, Li X, Rangel LB, Carvalho MA, Couch FJ, Monteiro ANA. Two distinct mechanisms underlie estrogen-receptor-negative breast cancer susceptibility at the 2p23.2 locus. *Eur J Hum Genet.* 2021 Nov.  
DOI: 10.1038/s41431-021-01005-6.
10. **Lyra-Jr PC**, Nepomuceno TC, de Souza MLM, Machado GF, Veloso MF, Henriques TB, dos Santos DZ, Ribeiro IG, Ribeiro-Jr RSR, Rangel LBA, Richardson M, Iversen ES, Goldgar D, Couch FJ, Carvalho MA, Monteiro ANA. Integration of functional assay data results provides strong evidence for classification of hundreds of BRCA1 variants of uncertain significance. *Genet Med.* 2021 Oct.  
DOI: 10.1038/s41436-020-00991-0.
11. Henriques TB, dos Santos DZ, Guimarães IS, Tessarollo NG, **Lyra-Jr PC**, Mesquita P, Pádua D, Amaral AL, Cavadas B, Pereira L, Silva IV, Almeida RMSG, Rangel LBA. Inhibition of CXCR2 plays a pivotal role in re-sensitizing ovarian cancer to cisplatin treatment. *Aging.* 2021 May.  
DOI: 10.18632/aging.203074.
12. **Lyra-Jr PC**, Rangel LBA, Monteiro ANA. Functional landscape of common variants associated with susceptibility to epithelial ovarian cancer. *Curr Epidemiol Rep.* 2020 Jan.  
DOI: 10.1007/s40471-020-00227-4.
13. Gusev A, Lawrenson K, Lin X, **Lyra-Jr PC**, Kar S, Vavra KC, Segato F, Fonseca MAS, Lee JM, Pejovic T, Liu G, Ovarian Cancer Association Consortium, Karlan BY, Freedman ML, Noushmehr H, Monteiro ANA, Pharoah PDP, Pasaniuc B, Gayther SA. A transcriptome-wide association study of high grade serous epithelial ovarian cancer identifies new susceptibility genes and splice variants. *Nat Genet.* 2019 May.  
DOI: 10.1038/s41588-019-0395-x.
14. Buckley MA, Woods NT, Tyrer JP, Mendoza-Fandiño G, Lawrenson K, Hazelett DJ, Najafabadi HS, Gjyshi A, Carvalho RS, **Lyra-Jr PC**, Coetzee SG, Shen HC, Yang AW, Earp MA, Yoder SJ, Risch H, Chenevix Trench G, Ramus SJ, Phelan CM, Coetzee GA, Noushmehr H, Hughes TR, Sellers TA, Goode EL, Pharoah PDP, Gayther SA, Monteiro ANA. Functional analysis and fine mapping of the 9p22.2 ovarian cancer susceptibility locus. *Cancer Res.* 2019 Feb.  
DOI: 10.1158/0008-5472.CAN-17-3864.
15. Phelan CM, Kuchenbaecker KB, Tyrer JP, Kar SP, Lawrenson K, Winham SJ, Dennis J, Pirie A, Riggan MJ, Chornokur G, Earp MA, **Lyra-Jr PC** ... Gayther SA, Antoniou AC, Pharoah PDP. Identification of 12 new susceptibility loci for different histotypes of epithelial ovarian cancer. *Nat Genet.* 2017 May.  
DOI: 10.1038/ng.3826.

**Book Chapters**

1. Guimarães, Isabella S., Dos Santos, Diandra Z., **Lyra-Junior, P. C. M.**, Silva, Iv, Rangel, LBA. The therapeutic potential of Metformin in Breast and Ovarian Cancer. Nova Publishers. 2019.
2. **Lyra-Junior, P. C. M.**, Tessarollo, N., Guimaraes, I., Henriques, T. B., Dos Santos, Diandra Z., Souza, M. L. M., Marques, V. H., De Oliveira, Laura F.R.L., Vaz, K., Silva, Iv, Rangel, LBA, Branco, A. T. GWAS in Breast Cancer. 1 Ed. Intech, 2017, V. 1, P. 99-118.
3. Guimarães, Isabella S., Tessarollo, Nayara G., **Lyra-Junior, Paulo C.M.**, dos Santos, Diandra Z., Zampier, Roger C., de Oliveira, Laura F.R.L., Siqueira, Krislayne V., Silva, Ian V., Rangel, Leticia B.A. Targeting the PI3K/AKT/mTOR Pathway in Cancer Cells. 1 ed. InTech, 2015.
4. Ladislau, Taciane, P, Klesia, D, Renata, S Guimares, Isabella, F, Sarah, CM, **Paulo, C**, Iuri, BA, Leticia, L, Alice. Target Cancer Therapy. 2 ed. InTech, 2013, v. 1, p. 37-63.
5. Santos Guimares, Isabella dos, Dalmaschio, Renata, Herlinger, Alice Laschuk, Pirola, Klesia, Ladislau, Taciane, Valado, Iuri Cordeiro, **Lyra-Junior, Paulo Cilas Moraes**, Fernandes Teixeira, Sarah, Modesto, Gustavo, dos Santos, Diandra Zipinotti, Rangel, Karina, Azevedo Rangel, Leticia Batista. Conventional Cancer Treatment. 01 ed. InTech, 2013, v. 1, p. 03-35.
6. Madeira, K., Guimaraes, I., Daltoe, R., Herlinger, A., Ladislau, T., Valadao, I., **Lyra-Junior, P. C. M.**, Teixeira, S., Silva, Iv, Rangel, LBA. Triple Negative Breast Cancer: Clinicopathological characteristics, challenges, and therapy. 1 Ed. Nova Science Publishers, Inc., 2012, V. 1, P. 89-113.

**Book Editor**

Rangel, L. B. A., Kirubamani, H., Silva, I. V., **Lyra-Junior, P. C. M.** Hormone Therapy and Replacement in Cancer and Aging-related Diseases. IntechOpen. 2020.

**Other Education**

1. Building the LORIS LLR6 PanCancer Model Using PyCaret – Galaxy Training Network (2024)  
Access: [https://training.galaxyproject.org/training-material/topics/statistics/tutorials/loris\\_model/tutorial.html](https://training.galaxyproject.org/training-material/topics/statistics/tutorials/loris_model/tutorial.html)
2. Train and Test a Deep learning image classifier with Galaxy-Ludwig (2024)  
Access: <https://training.galaxyproject.org/training-material/topics/statistics/tutorials/galaxy-ludwig/tutorial.html>

**Teaching Experience****University courses:**

2020 – 2022	Pharmacology, Pharmaceutical Assistance
2017	Pharmacology
2014	Pharmaceutical Technology/Pharmaceutics
2013 – 2014	Pharmacology, Pharmaceutics, Pharmaceutical Assistance
2012	Pharmaceutics

**Lectures:**

- 2025 - Galaxy Learning and Modeling (GLEAM): Machine Learning accessible and best practices. AnVIL Project Demos, YouTube Channel.
- 2025 - Transforming the Machine Learning Workbench with Galaxy. Moffitt ITCR workshop, FL – USA.
- 2018 - Como praticar ciência e pesquisa no trabalho. III Encontro de Análises Clínicas, ES – Brazil.
- 2017 - Genome-wide association Study. II Encontro de Análises Clínicas, ES – Brazil.
- 2017 - Genome-wide association Study. Faculdade Pitagoras, ES – Brazil.
- 2013 - Análise toxicológicas como campo de atuação: Desafios e perspectivas frente aos grandes eventos Copa do Mundo e Olimpíadas. I Pharma Campos, RJ – Brazil.

**Participation in Academic Committees:****Master's Degree Theses**

1. Ana Maria Rodrigues: Evaluation of the Expression of Interleukin-1 $\beta$  and the NLRP3 Inflammasome in a Cisplatin-Resistant Epithelial Ovarian Cancer Model. 2018. Program: Master's in Biochemistry and Pharmacology. Federal University of Espírito Santo.
2. Higor Scardini Santana: Evaluation of APOE and Osteocalcin as Secondary Risk Factors Associated with Menopause. 2020. Master's in Biochemistry and Pharmacology. Federal University of Espírito Santo.

Doctoral Defense Committees

3. Taciane Barbosa Henriques: The Role of CXCR2 in Pan-Chemoresistant Cells of High-Grade Serous Ovarian Cancer. 2020. Doctorate in Biochemistry and Pharmacology. Federal University of Espírito Santo

Undergraduate Thesis Committees

4. Zaqueu de Almeida Kviatkoski: Development Project of a Low-Cost Spectrophotometer. Faculty of Education and Environment. 2021.
5. Istefani Damalis de Lima Silva Balbeirá: Pharmaceutical Intervention Regarding Menarche, Climacteric, and Menopause. Faculty of Education and Environment. 2021.
6. Edson Costa da Silva Junior: Importance of the Pharmacist Within Basic Health Units. Faculty of Education and Environment. 2021.
7. Cristiane Souza de Felipe: The Role of the Aesthetic Pharmacist in the Treatment of Melasma. Faculty of Education and Environment. 2021.
8. Gabriela Barreto Andrade: Indiscriminate Use of NSAIDs by Hypertensive Patients. Faculty of Education and Environment. 2021.
9. Daiane Guimarães Rezende: Chronic Hepatitis C in Older Adults in Brazil: An Educational Approach in Health. Faculty of Education and Environment. 2021.
10. Maria Alice Santos Tavares: Common Medication-Prescription Errors: Role of the Pharmacist in Dispensing. Faculty of Education and Environment. 2021.
11. Daniele Cândido Ribeiro: Survey of Major Classes of Medications Dispensed at a Basic Health Unit in Rondônia and the Role of the Pharmacist. Faculty of Education and Environment. 2020.
12. Solange Aguiar Kramer Santos: Mayaro Virus: Infectious Disease in the Amazon Region. Faculty of Education and Environment. 2020.
13. Elvira Santos Moreira: Prevalence of Leprosy in Monte Negro, RO, from 2014 to 2019. Faculty of Education and Environment. 2020.
14. Maria Rosalina Sana De Freitas: The Role of the Pharmacist in Combating Self-Medication. Faculty of Education and Environment. 2020.
15. Leandro De Matos Bruch: The Importance of Developing an App for Pharmaceutical Care in the Elderly. Faculty of Education and Environment. 2020.
16. Deisielle Batista Sabará: Association of Systemic Arterial Hypertension and Risk Factors. Faculty of Education and Environment. 2020.
17. Julio Ricardo Castro Pérez: Collection and Transportation Systems for Laboratory Samples in Hard-to-Reach Populations. Faculty of Education and Environment. 2020.
18. Jhulia Jhene Da Silva Chaveiro: Contraceptive Methods Used by Postpartum Women—Family Planning. Faculty of Education and Environment. 2020.
19. Priscilla Satomi Yamagishi: Development of an App for Medicine Price Consultation. Faculty of Education and Environment. 2020.
20. Leomar Camargo Zanelato: Pharmacovigilance as a Risk Management Tool to Ensure Patient Safety. Faculty of Education and Environment. 2020.
21. Regiane Casarin Thomes: Gestational Thrombophilia: A Literature Review. Faculty of Education and Environment. 2020.
22. Naraiana De Jesus Lima: Evaluation and Treatment of Chronic Pain in Oncology Patients. Faculty of Education and Environment. 2020.
23. Clauanny Stefhany Vidal Laia: The Dáder Method in Pharmaceutical Care for Therapeutic Adherence in Elderly Patients. Faculty of Education and Environment. 2020.
24. Mariella Da Silva Valadão: Comparative Study of the Pharmaceutical Systems in Canada and Brazil. Federal University of Espírito Santo. 2019.
25. Gessica Franco: Systematic Analysis of Claudin Expression in Ovarian Cancer. Federal University of Espírito Santo. 2018.
26. Alan K. Schroeder, Caroline T. Da Silva, Julia V. Torezani: Molecular Diagnosis of Thalassemia. School of Higher Education at São Francisco Educational Institute. 2013.

Supervised and Advised Undergraduate Theses

27. Jeniffer de Souza Leal: Patients with Systemic Lupus Erythematosus (SLE): Patients' Difficulties. Faculty of Education and Environment. 2021.

28. Wéverton Aguiar de Souza Fernandes: Patient Follow-Up: An App for Accessing the Patient's Medical History. Faculty of Education and Environment. 2021.
29. Renata de Souza Assis: Importance of Studies on Amazonian Herbal Medicines: Six Examples of Medicines Derived from the Region. Faculty of Education and Environment. 2021.
30. Dionatan de Jesus Lima: Levodopa as a Treatment for Parkinson's Disease. Faculty of Education and Environment. 2021.
31. Julia Galhardo Santos: Generic Medicines in Brazil: Impacts of Commercialization on the Pharmaceutical Market and Health Care. Faculty of Education and Environment. 2021.
32. Nathieli dos Santos Silva: Challenges for Pharmaceutical Care in Brazil's Unified Health System (SUS). Faculty of Education and Environment. 2021.
33. Camaria Primo Santos Amaral: Male Breast Cancer: The Search for Awareness. Faculty of Education and Environment. 2021.
34. Regineide Ribeiro da Costa: Advances and Challenges in Pharmaceutical Care in Primary Care in the Unified Health System (SUS): A Literature Analysis. Faculty of Education and Environment. 2021.
35. Franciely Adalgisa Braulino Vieira: Adherence to Treatment of Hypertensive Patients at the Basic Health Unit: Integration of the Pharmacist into the Context. Faculty of Education and Environment. 2020.
36. Fabiana Moreira da Silva: Study of Medication Poisonings in Children and the Elderly in Brazil from 2014 to 2017. Faculty of Education and Environment. 2020.
37. Ricardo Alexandre Crozetta: Yerba Mate (Tereré): Use and Correlation with the 2019 Coronavirus Infection. Faculty of Education and Environment. 2020.
38. Jaqueline da Silva Gomes: The Use of Medications by the Elderly: Self-Medication and the Importance of Pharmaceutical Care. Faculty of Education and Environment. 2020.
39. Rafaëla Ribeiro Lima: The Influence of Media on Weight Loss Medications. Faculty of Education and Environment. 2020.
40. Keitty Samara Tomé Vasconcelos: The Relationship Between Socioeconomic Conditions and the Number of Deaths from Cervical Cancer. Faculty of Education and Environment. 2020.
41. Damaris Xavier Dórea: Retrospective Analysis of Melasma Treatment Using Microneedling. Faculty of Education and Environment. 2020.
42. David Costa Silva: Comparative Analysis of Resistance Profiles Between Escherichia coli Strains Isolated in Europe and Latin America. Faculty of Education and Environment. 2020.
43. Solange Silva Nunes: The Use of Ritalin® by Students: Academic Development Under the Effect of Ritalin®. Faculty of Education and Environment. 2020.
44. Fernanda Souza de Oliveira: Use of Vitamin C in the Prevention of Skin Aging. Faculty of Education and Environment. 2020.
45. Layla Nunes Pacheco: Therapeutic Potential of Cannabis Sativa: Use and Legalization in Brazil. Faculty of Education and Environment. 2020.
46. Andrezza Menezes de Araújo and Mariany Sales Dela Costa: In Silico Analysis of SNPs Associated with Breast Cancer Susceptibility. Federal University of Espírito Santo. 2019.
47. Josiany Carlos de Souza: The Role of NLRP3 Inflammasome and Interleukins 1 $\beta$  and 18 in Breast Cancer Development: A Literature Review. Federal University of Espírito Santo. 2019.

### **Certifications**

1. Microsoft – Azure AI Engineer Associate. 2024.
2. Microsoft – Azure Data Scientist Associate. 2024.
3. Microsoft – Security, Compliance, and Identity Fundamentals. 2022.
4. Microsoft – Azure Artificial Intelligence Fundamentals. 2022.
5. Microsoft – Azure Data Fundamentals. 2022.
6. Microsoft – Azure Fundamentals. 2021.

**Awards**

1. Exchange Research Scientist – National Council for Scientific and Technological Development (CNPq) – Brazil. Project: Fine mapping and functional analysis of the 8q21 ovarian cancer susceptibility locus. 2014 – 2015.
2. Doctorate – Espírito Santo Research Support Foundation (FAPES) – Brazil. Project: Fine mapping and functional analysis of the 8q21 ovarian cancer susceptibility locus. 2014 – 2018.
3. Master's Degree – Espírito Santo Research Support Foundation (FAPES) – Brazil. Project: In vitro study of the cytotoxic activity of a novel naphthoquinone compound. 2011 – 2013.
4. Scientific Initiation – National Council for Scientific and Technological Development (CNPq) – Brazil. Project: Characterization of a novel anti-NaPi-IIb polyclonal antibody. 2010 – 2011.
5. Scientific Initiation – National Council for Scientific and Technological Development (CNPq) – Brazil. Project: Evaluation of SLC34A2/NaPi-IIb expression with estrogen treatment in lung cancer. 2009 – 2010.

**Oral Presentations at Scientific Meetings**

1. Paulo Lyra - The Galaxy-ML2 tool suite: Using Galaxy to promote best practice in machine learning for biomedical data science. Robert Gillies Machine Learning Conference. Moffitt Cancer Center. 2025 October.
2. Paulo Lyra - The Galaxy-ML2 tool suite: Using Galaxy to promote best practice in machine learning for biomedical data science. Galaxy Bioconductor Community Conference (GBCC). Cold Spring Harbor. 2025 June.
3. Paulo Lyra - Optimizing Cancer Analyses with Best-Practices Machine Learning: A Web Application. Moffitt Symposium - Featured Poster. Moffitt Cancer Center. 2025 May.

**Poster Presentations and Scientific Abstracts**

1. Paulo Lyra, Junhao Qiu, Luke Sargent, Qiang Gu, Jeremy Goecks. Optimizing Cancer Analyses with Best-Practices Machine Learning: A Web Application. Moffitt Research Symposium – Featured Poster. Moffitt Cancer Center. May 2025.
2. Paulo C. M. Lyra, Jr., Lucas Dalcolmo, Michael Parsons, Samuel Brito, Thales C. Nepomuceno, Nam Phuong Nguyen, Marcy E. Richardson, Geise de Oliveira, Joao da Silva, Laura Caleca, Chunling Hu, Maria Rossing, Aditi Hazra, Alexandra Martins, Sandrine Caputo, Gael Millot, Joanne NgeowYuen Yie, Marcelo A. Carvalho, Melissa Cline, Paulo Radice, Rachel Carlsen, Romy Mesman, Valentina Zampiga, Vijay Joseph, Shyam Sharan, Maaik Vreeswijk, Amanda Spurdle, Fergus J. Couch, Alvaro N.A. Monteiro. Large-scale integration of functional assay data for the resolution of germline BRCA1 and BRCA2 variants of uncertain significance. BRCA Symposium. International Symposium on Hereditary Breast and Ovarian Cancer. 2025 May.
3. Paulo Lyra Jr., Lucas Dalcolmo, Michael Parsons, Vaishnavi Nathan, Thales Nepomuceno, Geise de Oliveira, Joao da Silva, Laura Caleca, Tanisha Taneja, Chunling Hu, Marcy Richardson, Maria Rossing, Aditi Hazra, Alexandra Martins, Sandrine Caputo, Gael Millot, Joanne NgeowYuen Yie, Marcelo A. Carvalho, Melissa Cline, Paulo Radice, Rachel Carlsen, Romy Mesman, Valentina Zampiga, Vijay Joseph, Shyam Sharan, Amanda Spurdle, Fergus Couch, Maike Vreeswijk, Alvaro N. Monteiro. Integration of functional data to classify BRCA1/2 missense variants: an ENIGMA project. Moffitt Scientific Symposium, Moffitt Cancer Center. May 2024.
4. Paulo Lyra, Lucas Dalcolmo, Michael Parsons, Thales Nepomuceno, Samuel Brito, Nam Phuong N. Nguyen, Geise de Oliveira, Joao Paulo da Siva, Laura Caleca, Tanisha Taneja, Chunling Hu, Marcy Richardson, Maria Rossing, Aditi Hazra, Alexandra Martins, Sandrine Caputo, Gael A. Millot, Joanne NgeowYuen Yie, Marcelo A. Carvalho, Melissa Cline, Paolo Radice, Rachael Carlsen, Romy Mesman, Valentina Zampiga, Rehan Villani, Vijay Josef, Shyam Sharan, Kyriaki Michailidou, Amanda B. Spurdle, Fergus Couch, Maaik P. G. Vreeswijk, Alvaro N. Monteiro. Abstract 7325: Integration of functional data to

- classify BRCA1/2 missense variants: An ENIGMA project. Cancer Research – AACR Annual Meeting. March 2024. DOI: 10.1158/1538-7445.AM2024-7325.
5. Huaizhi (Gilbert) Huang, Chunling Hu, Jie Na, Mohamed Abozaid, Amik Munankarmy, Tara Rao, Carolyn A. Dunn Lumby, Paulo Cilas Morais Lyra, Ronan E. Couch, Benjamin R. Persons, Eric C. Polley, Rachid Karam, Tina Pesaran, Siddhartha Yadav, Alvaro N. A. Monteiro, Nicholas J. Boddicker, Susan M. Domchek, Marcy E. Richardson, Fergus J. Couch. Abstract PR09: Functional and clinical characterization of hypomorphic missense variants in the BRCA2 cancer predisposition gene. Cancer Research – AACR Annual Meeting. February 2024. DOI: 10.1158/1538-7445.ADVBC23-PR09.
  6. Paulo Lyra Jr., Lucas Dalcolmo, Michael Parsons, Vaishnavi Nathan, Thales Nepomuceno, Geise de Oliveira, Joao da Silva, Laura Caleca, Tanisha Taneja, Chunling Hu, Marcy Richardson, Maria Rossing, Aditi Hazra, Alexandra Martins, Sandrine Caputo, Gael Millot, Joanne NgeowYuen Yie, Marcelo A. Carvalho, Melissa Cline, Paulo Radice, Rachel Carlsen, Romy Mesman, Valentina Zampiga, Vijay Joseph, Shyam Sharan, Amanda Spurdle, Fergus Couch, Maike Vreeswijk, Alvaro N. Monteiro. Integration of functional data to classify BRCA2 missense variants: an ENIGMA project. Moffitt Scientific Symposium, Moffitt Cancer Center. May 2023.
  7. Taciane Henriques, Diandra dos Santos, Isabella Guimaraes, Nayara Tessarollo, Paulo Lyra, Patricia Mesquisa, Diana Padua, Ana Luisa Amaral, Luisa Pereira, Bruno Cavadas, Ian Silva, Raquel Almeida, Leticia Rangel. Role of CXCR2 in the acquisition of pan-resistant phenotype in high-grade serous ovarian cancer cells. Cancer Research – AACR Annual Meeting. July 2019. DOI: 10.1158/1535-7163.TARG-19-A133.
  8. Diandra Zipinotti dos Santos, Isabella dos Santos Guimarães, Nayara Gusmão Tessarollo, Taciane Barbosa Henriques, Paulo Cilas Lyra Junior, Marcele L. L. de Souza, Maria C. Gomes, Ian Victor Silva, Leticia B. A. Rangel. Enhancement of cisplatin activity against triple-negative breast cancer cells by atorvastatin. Cancer Research – AACR Annual Meeting. July 2019. DOI: 10.1158/1538-7445.AM2019-5276.
  9. Ladislau T., Silva D., Madeira K., Daltoe R., Paes M. F., Herlinger A., Lyra-Junior P. C. M., Silva I. V., Rangel L. B. A. The role of mTOR in the cisplatin-resistant phenotype in ovarian cancer lineage. Proceedings of the 103rd Annual Meeting of the American Association for Cancer Research. Chicago, IL. 2012. Vol. 1.
  10. Herlinger A., Valadao I., Daltoe R., Madeira K., Allochio J. F., Rezende L. C. D., Cerri M. F., Teixeira S., Lyra-Junior P. C. M. Effect of novel rationally designed naphtoquinone-derived drugs on lung cancer cell lines. 10th International Congress on Cell Biology and 16th Congress of the Brazilian Society for Cell Biology. Rio de Janeiro, Brazil. 2012. Poster Abstracts. Vol. 1, p. 95–95.
  11. Cerri M. F., Guimaraes I., Rezende L. C. D., Paes M. F., Silva D., Lyra-Junior P. C. M., Tommasi B. O., Silva I. V., Rangel L. B. A. Evaluation of relative expression of SLC34A2/NaPi-IIb in NSCLC cell lines treated with estrogen and PKC and PKA pathway modulators. XXVI Reunião Anual da FeSBE. Rio de Janeiro, Brazil. 2011. Anais da XXVI Reunião Anual da FeSBE. Vol. 1.
  12. Cerri M. F., Rezende L. C. D., Lyra-Junior P. C. M., Paes M. F., Silva D., Sirtoli G. M., Tommasi B. O., Silva I. V., Rangel L. B. A. Avaliação da expressão do gene SLC34A2/NaPi-IIb em linhagens de carcinoma de pulmão do tipo NSCLC em resposta ao tratamento com 17-Beta-estradiol. 56º Congresso Brasileiro de Genética. Guarujá, Brazil. 2010. Vol. 56, p. 31–31.
  13. Cerri M. F., Rezende L. C. D., Paes M. F., Lyra-Junior P. C. M., Silva D., Sirtoli G. M., Tommasi B. O., Silva I. V., Rangel L. B. A. Avaliação da expressão relativa de SLC34A2/NaPi-IIb em linhagens celulares de NSCLC sob tratamento com moduladores das vias de PKC e PKA. 56º Congresso Brasileiro de Genética. Guarujá, Brazil. 2010. Vol. 56, p. 32–32.
  14. Cerri M. F., Rezende L. C. D., Paes M. F., Silva D., Goncalves N. T. L. P., Lyra-Junior P. C. M., Tommasi B. O., Silva I. V., Rangel L. B. A. Avaliação da expressão do gene SLC34A2/NaPi-IIb em linhagens de

carcinoma de pulmão do tipo NSCLC em resposta ao tratamento com 17-Beta-estradiol. IV Congresso de Ciências da Saúde. Vitória, Brazil. 2010. Vol. 4, p. 125–126.