

**Alina I. Onoiu, Ph.D.(c)**

Doctoral Scientist with extensive experience in clinical research and project coordination within the biomedical sector, with a focus on data management, digital imaging, project management, and collaboration with multidisciplinary teams. I am proactive and committed to continuous improvement, consistently striving for excellence while adhering to quality standards in research and healthcare environments.

**LANGUAGES**

Digital Pathology, Liver Damage, Fibrosis, MASLD, MASH, obesity, Adipose Tissue, Oncology, Omics.

Spanish: Advanced

Catalan: Advanced

Romanian: Advanced

English: Advanced (B2)

Microsoft Office tools, Image J, Graph Prism, Social Media, PSPP, SPSS, RStudio, Python, QuPath,

Adobe Illustrator, Inkscape, BioRender.

**EXPERTISE**

**EDUCATION**

*2023-Ongoing*

*Tarragona, Spain*

*2023-2025*

*Online*

*2022-2023*

*Tarragona, Spain*

*2018-2022*

*Tarragona, Spain*

*2016-2018*

*Reus, Spain*

*2023-2025*

*Tarragona*

PhD in Biomedicine

*Unitat de Recerca Biomèdica*

*Universitat Rovira i Virgili*

Master’s Degree in Bioinformatics and Biostatistics *Universitat Oberta de Catalunya and Universitat de Barcelona – GPA: 4*

Master's Degree in Secondary Education and Baccalaureate Teacher Training – Natural Sciences *Universitat Rovira i Virgili – GPA: 4.2*

Bachelor's Degree in Biochemistry and Molecular Biology (Specialization in Clinical and Forensic Biochemistry)

*Universitat Rovira i Virgili – GPA: 4.1*

Scientific-Technological Baccalaureate

*INS Salvador Vilaseca – Graduated with Honors*

**SKILLS**

Digital Pathology, Machine Learning, Data Modeling, DNA Analysis, Bioinformatics, Image Analysis, IHQ, Histology, Strong Communication & Team Collaboration.

**PROFESSIONAL EXPERIENCE**

**HOSPITAL UNIVERSITARI SANT JOAN DE REUS**

**Unitat de Recerca Biomèdica**

*PhD Student*

Leading a comprehensive digital pathology research project as part of my doctoral thesis focused on AI-powered pathological analysis. Responsible for managing project timelines, coordinating multidisciplinary teams spanning machine learning, biomedical data sciences, and clinical operations, and ensuring rigorous scientific standards throughout all phases from design to execution.

**PROGRAMS AND TOOLS**

*September 1, 2023 – Present,*

*Reus, Spain*

*June 19, 2017 – July 20, 2017*

*Reus*

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My research journey has involved establishing strategic collaborations with private sector partners, including PathAI and Pharmanest. Through processing quantitative datasets and conducting statistical analyses of complex clinical data, I develop biomarker solutions for precision medicine while maintaining strict ethics compliance and protocol standards.

**COL·LEGI EL CARME TARRAGONA**

*Science Teacher*

I taught Biology and Geology, enhancing my communication and leadership skills within a scientific teaching environment. I effectively managed students and developed adaptive educational content, ensuring the clear and engaging conveyance of scientific knowledge.

**IISPV I IRB LLEIDA**

*Internship*

I participated in a clinical research project focused on the bioinformatic analysis of post-mortem tissues using advanced proteomics techniques, such as mass spectrometry, to investigate connections between schizophrenia and biochemical alterations at the molecular level. I specialized in managing and analyzing large volumes of clinical and biomolecular data, identifying significant patterns and correlations, and leveraging bioinformatics tools to interpret complex datasets and formulate robust clinical conclusions.

**LABORATORIS ESCUREDO**

*Internship*

I collaborated in performing and managing COVID-19 diagnostic tests, including antigen, serological, and qPCR tests, ensuring accuracy and strict adherence to regulatory standards (GCP). Additionally, I managed the procurement of necessary consumables and delivered results to clients clearly and professionally, addressing and resolving any inquiries to ensure their understanding.

*March 27, 2023 – June 20, 2023*

*Tarragona, Spain*

*February 2, 2021 - June 20, 2022*

*Reus – Lleida, Spain*

*October 5, 2020 – June 30, 2021*

*Reus, Spain*

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Onoiu, A. I., Cambra-Cortes, V., Jiménez-Franco, A., Placed-Gallego, C., Jiménez-Aguilar, J. M., Martínez-Navidad, C., Castañé, H., Camps, J., & Joven, J. (2024). Untargeted lipidomics unveils distinct signature of metabolic dysfunction-associated steatohepatitis in the context of obesity. *Journal of Hepatology, 80*(S582). <https://doi.org/10.1016/S0168-8278(24)01712-4>. EASL International liver congress 2024 – Digital and face to face. Milan.

Jiménez-Aguilar, J. M., Jiménez-Franco, A., Castañé, H., Onoiu, A. I., Cambra-Cortes, V., Placed-Gallego, C., Martínez-Navidad, C., Camps, J., & Joven, J. (2024). Single nucleotide polymorphism analysis for predicting metabolic-associated fatty liver disease development in patients with severe obesity (types II and III). *Journal of Hepatology, 80*(S594). <https://doi.org/10.1016/S0168-8278(24)01742-2>. EASL International liver congress 2024 – Digital and face to face. Milan.

Placed-Gallego, C., Jiménez-Aguilar, J. M., Onoiu, A. I., Cambra-Cortes, V., Jiménez-Franco, A., Martínez-Navidad, C., Castañé, H., Camps, J., & Joven, J. (2024). Metabolic profiling of adipose tissues in metabolic dysfunction-associated steatohepatitis (MASH): Insights from lipidomic, proteomic, and epigenetic analyses in morbidly obese patients undergoing bariatric surgery. *Journal of Hepatology, 80*(S583-S584). <https://doi.org/10.1016/S0168-8278(24)01717-3>. EASL International liver congress 2024 – Digital and face to face. Milan.

Jiménez-Franco, A., Ramirez-Baños, M., Placed-Gallego, C., Jiménez-Aguilar, J. M., Martínez-Navidad, C., Castañé, H., Onoiu, A. I., Cambra-Cortes, V., Camps, J., & Joven, J. (2024). Significance of adipose tissue fibrosis and adipocyte in the progression of metabolic dysfunction-associated steatohepatitis in severe obesity patients. *Journal of Hepatology, 80*(S586). <https://doi.org/10.1016/S0168-8278(24)01723-9> . EASL International liver congress 2024 – Digital and face to face. Milan.

Murcia, M., Canela-Capdevila, M., García-Pablo, R., Jiménez-Franco, A., Jiménez-Aguilar, J. M., Badía, J., Benavides-Villarreal, R., Acosta, J. C., Arguís, M., Onoiu, A. I., Castañé, H., Camps, J., Arenas, M., & Joven, J. (2024). Combining metabolomics and machine learning to identify diagnostic and prognostic biomarkers in patients with non-small cell lung cancer pre- and post-radiation therapy. *Biomolecules, 14*(8), 898. <https://doi.org/10.3390/biom14080898>

Lorca C, Fernández-Rohades M, Sánchez Milán JA, Mulet M, Elortzas F, Ramos-Miguel A, Callado LF, Meana JJ, Mur M, Batalla I, Vilella E, Serra A, Gallart-Palau X. Next-Generation Proteomics of Brain Extracellular Vesicles in Schizophrenia Provide New Clues on the Altered Molecular Connectome. Biomedicines. 2024 Jan 8;12(1):129. doi: 10.3390/biomedicines12010129. PMID:38255234; PMCID; PMC10812948.

**CONFERENCES AND PUBLICATIONS**

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Andrea Jiménez-Franco, Juan Manuel Jiménez-Aguilar, Marta Canela-Capdevila, Raquel García-Pablo, Helena Castañé, Cristian Martinez-Navidad, Pablo Araguas, Bárbara Malavé, Rocío Benavides, Johana C. Acosta, Alina Iuliana Onoiu, Novita Somaiah, Jordi Camps PhD, Meritxell Arenas, Jorge Joven. Metabolomics reveals favorable metabolic change in the plasma of breast cancer patients after surgery and adjuvant treatment. *Biomedicines* 2024, *12*(10), 2196; <https://doi.org/10.3390/biomedicines12102196>

Castañé H, Jiménez-Franco A, Hernández-Aguilera A, et al. Multi-omics profiling reveals altered mitochondrial metabolism in adipose tissue from patients with metabolic dysfunction-associated steatohepatitis. EBioMedicine. Published online December 27, 2024. [http://doi:10.1016/j.ebiom.2024.105532](https://pubmed.ncbi.nlm.nih.gov/39731853/)

Onoiu A-I, Domínguez DP, Joven J. Digital Pathology Tailored for Assessment of Liver Biopsies. *Biomedicines*. 2025; 13(4):846. [https://doi.org/10.3390/biomedicines13040846](https://www.mdpi.com/2227-9059/13/4/846)

Cambra-Cortes, V., Onoiu, A. I., Jiménez-Franco, A., Jiménez-Aguilar, J. M., Montalà-Palau, N., Camps, J., & Joven, J. (2025). Deep learning analysis reveals the impact of steatosis size and density on the progression of non-alcohol-related liver disease in severe obesity. *Journal of Hepatology, 82*(S618). doi: [10.1016/S0168-8278(25)01659-9 .](https://www.postersessiononline.eu/173580348_eu/congresos/EASL2025/aula/-FRI_445_EASL2025.pdf) EASL International liver congress 2025 – Digital and face to face. Amsterdam.

Onoiu AI, Cambra-Cortés V, Jiménez-Franco A, et al. Circulating Lipid Profiles Indicate Incomplete Metabolic Recovery After Weight Loss, Suggesting the Need for Additional Interventions in Severe Obesity. Biomolecules. 2025;15(8):1112. Published 2025 Aug 1. doi:[10.3390/biom15081112](https://pubmed.ncbi.nlm.nih.gov/40867557/)

Castañé H, Jiménez-Franco A, Onoiu A-I, Cambra-Cortés V, Hernández-Aguilera A, Parada D, Riu F, Zorzano A, Camps J, Joven J. Dysregulation of the FGF21–Adiponectin Axis in a Large Cohort of Patients with Severe Obesity and Liver Disease. *International Journal of Molecular Sciences*. 2025; 26(17):8510. [https://doi.org/10.3390/ijms26178510](https://www.mdpi.com/1422-0067/26/17/8510)

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**PROJECTS**

PI21/00510, Integrated multi-omics and machine learning-driven personalized treatment of metabolic dysfunction-associated fatty liver disease in obesity and diabetes. Instituto de Salud Carlos III. Jorge Joven (Hospital Universitari Sant Joan de Reus). 01/01/2022 -31/12/2024. 251.221,44€.

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AECC2022, Stereotactic ABlative Radiotherapy for Oligometastasic Breast Cancer: a radiomics, multi-omics and machine learning approach in clinical decision-making. The OBC-SABR multicentric international project. Asociación Española Contra el Cáncer. Jorge Joven (Hospital Universitari Sant Joan de Reus). 01/01/2022 – 31/12/2025. 150.000€

PI24/01146, Multi-tissue lipidomics reveals biomarkers of liver disease in severe obesity and mechanisms associated with dysfunctional adipose tissue. Instituto de Salud Carlos III. Jorge Joven (Hospital Universitari Sant Joan de Reus). 01/01/2024 - 31/12/2025. 221.250,00€.

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PI21/00510, Integrated multi-omics and machine learning-driven personalized treatment of metabolic dysfunction-associated fatty liver disease in obesity and diabetes. Instituto de Salud Carlos III. Jorge Joven (Hospital Universitari Sant Joan de Reus). 01/01/2022 -31/12/2024. 251.221,44€.

AECC2022, Stereotactic ABlative Radiotherapy for Oligometastasic Breast Cancer: a radiomics, multi-omics and machine learning approach in clinical decision-making. The OBC-SABR multicentric international project. Asociación Española Contra el Cáncer. Jorge Joven (Hospital Universitari Sant Joan de Reus). 01/01/2022 – 31/12/2025. 150.000€

PI24/01146, Multi-tissue lipidomics reveals biomarkers of liver disease in severe obesity and mechanisms associated with dysfunctional adipose tissue. Instituto de Salud Carlos III. Jorge Joven (Hospital Universitari Sant Joan de Reus). 01/01/2024 - 31/12/2025. 221.250,00€.

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