**Dr Despoina Chrysostomou**

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| **SCIENTIFIC INTERESTS** |
| My work focuses on delineating the role of gut microbiome in the efficacy and toxicity of chemotherapeutic agents used as a first line treatment for cancer. During my PhD I have developed assays *in vitro* to explore bacteria-drug interactions and validated those in animal models. Utilising samples from human clinical cohorts, I am aiming to identify circulating microbial metabolites that can be used as markers of chemotherapy efficacy and toxicity using high-throughput metabolomics approaches including Liquid Chromatography-Mass Spectrometry (LC-MS) and Nuclear Magnetic Resonance (NMR). I am also employing metataxonomic approaches (e.g., 16S rRNA gene sequencing) to identify key bacteria species metabolising chemotherapeutic agents and altering their efficacy. As part of my role as a post-doctoral scientist at Imperial College London, I am working towards developing an encapsulated Intestinal Microbiota Transplant (IMT) product for overcoming the obstacles associated with the current ways of IMT administration, and ultimately move towards a more patient-friendly way of IMT administration. |

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| **QUALIFICATIONS** | |
| **IMPERIAL COLLEGE LONDON** | |
| Jan 2024 – Present | **Research Associate in Cancer Pharmacomicrobiomics and applications in Translational Medicine - Department of Metabolism, Digestion and Reproduction.**  Investigating microbiome-host-drug interactions and optimising a lyophilised faecal microbiota capsule formulation. |
| Oct 2019 – Jan 2024 | **PhD in Clinical Research Medicine - Department of Metabolism, Digestion and Reproduction.**  Identification of circulating markers of gut microbiome function modulating therapy responses in colorectal cancer. |
| Sep 2018 – Sep 2019 | **MSc Functional Omics / Applied Genomics (Distinction)** |
| **THE UNIVERSITY OF SHEFFIELD** | |
| Sep 2015 – July 2018 | **BSc Biomedical Science (2:1)** |

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| **CONFERENCES, AWARDS, AND PUBLICATIONS** | |
| **Conferences** | **Seedpods Day 2021,** France (Virtually - Oral Presentation)  **Digestive Disease Week 2022,** USA (Poster Presentation)  **Microbiology Society annual meeting 2023,** UK (Poster Presentation)  **American Association Cancer Research 2023,** USA (Poster Presentation) |
| **Science Outreach** | Junior Director of theImperial College Microbiome Network (2020-2022).  Organising member of the Joint Academic Microbiology﻿ Seminars (JAMS) (2021-2023). Active member of the Drug Network and Women in Science Association at Imperial College. Participated in the Exhibition Road Festival (2022) and currently collaborating with clinical trials unit to promote public engagement. |
| **Qualifications** | Good Clinical Practise (GCP) certification (2019). |
| **Awards** | * Studentship awarded for a fully funded PhD by Stratified Medicine Graduate Training Program in Systems Medicine and Spectroscopic Profiling (**STRATiGRAD**) and Medical Research Council Doctoral Training Program (**MRC-DTP**). MRC travel grant (2023) for attending AACR meeting to present my work. |
| **Publications**  ORCID:<https://orcid.org/0000-0001-8150-7142> | * 3 published abstracts.   + - [10.1016/s0016-5085(21)01653-x](https://doi.org/10.1016/s0016-5085(21)01653-x)     - [10.1016/s0016-5085(22)61077-1](https://doi.org/10.1016/s0016-5085(22)61077-1)     - [10.1016/s0016-5085(24)01774-8](https://doi.org/10.1016/s0016-5085(24)01774-8) * **Chrysostomou D**, Roberts, LA, Marchesi JR, Kinross, JM. Gut Microbiota Modulation of Efficacy and Toxicity of Cancer Chemotherapy and Immunotherapy. ***Gastroenterology, 2022*** [review article]. * Perry RW, Mullish BH, Alexander JL, Shah R, Danckert N, Miguens Blanco J, Roberts L, Liu Z, **Chrysostomou D**, *et. al.,* 3D-printed Rectal Swabs for Assessing the Gut Microbiome, Metabolome and Inflammation. ***Nature Scientific Reports, 2024.*** * Martinez-Martinez D, Viera Peres T, Gehling K, Quintaneiro L, Yang M, Cabrera C, Cutty SJ, Best L, Marinos G, Zimmerman J, Safoor A, **Chrysostomou D**, *et. al.,* Chemotherapy Modulation by a Cancer-associated Microbiota Metabolite. ***Manuscript under Revision, Cell, 2024.*** |