Eva Bugallo Blanco

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bugallo.github.io

Research interests

I am passionate about the development of translational **CAR T cell therapies** targeting solid tumours. Throughout my academic career, I have been involved in every step of the process, from target discovery to in vivo efficacy assessment; including vector design, **immunophenotyping** of CAR T cell product, in vivo **CAR T cell tracking** and ex vivo biodistribution. Driven by my enthusiasm for cutting-edge immunotherapy, I am eager to further expand my knowledge and expertise beyond the oncology field and venture into the dynamic industry sector.

Key Skills

- Excellent in time management
- Excellent record keeping
- Great team player
- Strong research ethic
- Experienced in flow cytometry
- Experienced in in vivo models
- Experienced with nuclear imaging
- Competent with Flowjo, GraphPad, Vivoquant

Research Experience

Doctoral student, King's College London

October 2019 till date

"Development of an absolute quantitation method for genetically modified cell therapies."

- Production and characterization of traceable CAR-hNIS PSMA T cells.
- Monitoring of CAR T cell efficacy and biodistribution through SPECT/CT in in vivo models.
- Good organisation, meticulous record keeping and timely delivery of results.
- Demonstrated seamless efficiency while working between two laboratories sites.

COVID-19 Research Project

April 2020 – June 2020

Immunophenotyping of peripheral blood from COVID patients.

- Isolation and staining of T cells from patient's samples in CL3 laboratory.
- Adapted to work extended shifts with little advance notice.
- Collaborative project with numerous interdependent steps.

Research Assistant, UCL Institute of Child Health

January 2018 – September 2019

"Generation of panel of O-Acetyl-GD2-specific antibodies for development of immunotherapies targeting neuroblastoma."

- Production and purification of O-Acetyl-GD2-specific antibody from hybridomas
- Preparation of patient tumour samples for scRNAseq in collaboration with the Sanger Institute.
- Meticulous record keeping and presentation of results.
- Demonstrated seamless efficiency while working between two laboratories sites.

Education

PhD student *October 2019 – till date*

King´s College London
Doctoral studies, "Development of a quantitation method for genetically modified cell therapy"

MRes in Molecular and Cellular Biosciences *October 2016 – September 2017*

Imperial College London

- **Distinction** award
- Master's theses: **"**Characterization of recombinant proteins in mammalian cells", "Role of GABAergic neurons in thermoregulation and sleep" and "Analysis of the hetero-hexamer HrpRS that regulates the Type III Secretion System in *Pseudomonas syringae pv.* Tomato DC3000"

BSc in Biotechnology *July 2015 – June 2016*

University of Salamanca, Spain & University of Melbourne, Australia **First class**

- Dissertation: "Oligonucleotide RNA Targeting: A Novel Therapy for Treating Friedreich's Ataxia"

Publications

- **A dynamic COVID-19 immune signature includes associations with poor prognosis**
  AG Laing, A Lorenc, IDM Del Barrio, A Das, M Fish, [...],E Bugallo-Blanco, [...] AC Hayday ,
  Nature medicine2020
- **Acute immune signatures and their legacies in severe acute respiratory syndrome coronavirus-2 infected cancer patients**
  S Abdul-Jawad, L Baù, T Alaguthurai, IDM Del Barrio, [...],E Bugallo-Blanco, [...] S Irshad
  Cancer Cell 2021
- **Tumor to normal single-cell mRNA comparisons reveal a pan-neuroblastoma cancer cell**
  G Kildisiute, WM Kholosy, MD Young, K Roberts, [...],E Bugallo-Blanco, [...] K Straathof
  Science Advances 2021

Technical skills

Molecular biology: vector design, cloning, DNA purification, PCR.
Tissue culture: isolation of T cells from peripheral blood and xenograft tumours, maintenance of primary and tumour cells, co-culture and cytotoxicity assays, 10x from patient samples.
Flow cytometry including multi-colour immunophenotyping, ELISA, Western Blot, Immunohistochemistry.
In vivo: BLI, SPECT/CT, competent in subcutaneous, intraperitoneal, and intravenous injections.
Software: Flowjo, Graphad, VivoQuant, QuPath.

Seminar Talks and Conference Presentations

- ''No more shots in the dark: tracking and imaging CAR T-cells'', **poster** presentation, EACR annual meeting, Turin, June 2022.
- ''Development of a quantitation method for genetically modified gene therapies'', **presentation**, ISCT annual meeting, Paris, May 2023.
- ''Development of a quantitation method for genetically modified gene therapies'' **poster** presentation, CRUK CoL Centre Symposium, London, November 2022.
- ''No more shots in the dark: tracking and imaging CAR T-cells'', **poster** presentation, 17th European Molecular Imaging Meeting, Thessaloniki, March 2022.
- "Next generation GD2-targeted immunotherapeutics", **presentation**, Bi-Annual Symposium, UCL Institute of Child Health, London, June 2018.

Science Communication

- CRUK Future Leaders training event, Barts Cancer Institute, January 2023
- Barts Cancer Institute, Instagram takeover, October 2022
- Revealing Research : The Pursuit of Personalised Medicine, UCL, London, October 2019
- Talk to kids on flow cytometry during the Annual Family Fun Day, Great Ormond Street Hospital (GOSH), London, October 2018
- Hosting tours of the laboratory for supporters of Cancer Research UK and GOSHCC/Sparks, London, September 2018

Awards and Fellowships

- CRUK City of London PhD fellowship
- La Caixa Doctoral INPhINIT Fellowship, I chose not to accept it.
- Best poster award, 2021 CRUK City of London Center Symposium, London, March 2021.
- Exchange scholarship at the University of Melbourne (2015-2016).