

## CyBorD-DARA trial features at American Society of Haematology (ASH) meeting

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The American Society of Haematology (ASH) is the world's largest professional society concerned with the causes and treatment of blood disorders.

Its annual meetings highlight ground-breaking scientific research and the latest advances in patient care.

The 2017 ASH Annual Meeting (59<sup>th</sup> Annual Meeting) was held in Atlanta last December. More than 25,000 experts in the field from around the world attended this meeting.

Nearly 5,000 scientific abstract presentations were submitted covering malignant and non-malignant blood diseases, from cutting-edge advances in gene therapy to practice-changing discoveries in immunotherapies.

### CyBorD-DARA

Prof Michael O'Dwyer (Chief Investigator at the University Hospital Galway and Director of Blood Cancer Network Ireland) and Dr Cian McEllistrim (Former Sub-Investigator at the University Hospital Galway) submitted an abstract on their CyBorD-DARA (CTRIAL-E16-02) trial that was accepted as a poster presentation at the meeting.

This trial is a Phase Ib study of weekly Cyclophosphamide-Bortezomib-Dexamethasone with Daratumumab (DARA) in transplant eligible patients with newly diagnosed Multiple Myeloma. It is managed in collaboration with Cancer Trials Ireland. The translational component in the CyBorD-DARA trial was submitted and accepted as an oral presentation at the meeting.

Preliminary data was presented on the first 6 patients who completed induction treatment (4 cycles) on the trial. The combination shows a promising response rate among these patients and that it is well tolerated.

The translational research, conducted by Dr Serika D Naicker at the Biomedical Sciences Institute at NUI Galway, confirmed the previous *in vitro* findings which support the combination of cyclophosphamide and daratumumab. It was shown that cyclophosphamide potentiates macrophage mediated antibody-dependent cellular cytotoxicity (ADCC) of daratumumab.

### Connections

Another important aspect of the meeting was connecting with the haematologist consultants, colleagues from pharmaceutical industries (such as Roche, AbbVie, Celgene and Sanofi) and other collaborative groups (such as Dana Farber Cancer Institute) to review current as well as potential trials that could be brought to Ireland.



*Pictured at the ASH meeting with CyBorD-DARA trial poster presentation (l to r) Dr Cian McEllistrim, (first author), Prof Michael O'Dwyer (Chief Investigator) and Dr Serika D Naicker (the researcher who conducts the translational research element of the trial).*

### CAR-T

For me the highlights of the meeting were the talks on the most revolutionary treatments for malignant blood diseases. What seems to be the most innovative treatment at the moment is the chimeric antigen receptor or CAR-T cell therapy, which is a cellular immunotherapy. The US Food and Drug Administration (FDA) has recently approved this therapy.

The CAR-T cell therapy is focused on genetically transforming a patient's own T cells, which will carry a protein called chimeric antigen receptor (the CAR in CAR-T) on their surface that recognises the cancer cells and kills them effectively. This therapy can, however, like all cancer therapies, cause sometimes severe side effects. One of the most frequent and important side effects is the cytokine release syndrome (CRS). Management of these side effects was discussed at the meeting.

This therapy is unfortunately not available in Ireland yet. Prof Michael O'Dwyer is trying to bring clinical trials with CAR-T cells to Ireland.

This was the first time I attended the ASH annual meeting and it was very interesting to watch the world's top experts talk about the different haematologic malignant diseases and the most innovative treatments available (either commercially or through clinical trials).

This was a very good experience and certainly contributed to my professional development as the Cancer Trials Ireland Lymphoma and Haematology DSSG co-ordinator.