Automated, highly-sensitive flow cytometry method for standardized detection of minimal residual disease in multiple myeloma

Salamanca, 21-22 March 2014
Cancer Research Center (IBMCC, USAL-CSIC)

IMF (International Myeloma Foundation)- EuroFlow workshop on:

"Automated, highly-sensitive flow cytometry method for standardized detection of minimal residual disease in multiple myeloma"
Program

Friday, 21st March 2014

8:30 - 9:00 Registration
9:00 - 9:15 Welcome and introduction
   Brian Durie, International Myeloma Foundation
   Alberto Orfao, University of Salamanca, Salamanca, Spain

9:15 - 10:00 Treatment of myeloma: state of the Art
   Jesus San Miguel, University of Navarra, Pamplona, Spain
   Towards the cure of multiple myeloma: the IMF initiatives
   Brian Durie, International Myeloma Foundation

10:00 - 11:30 Section 1: Minimal residual disease detection in multiple myeloma. Current status
   Chair: TBD
   Clinical utility of Flow MRD in multiple myeloma: state of the art.
   Bruno Paiva, University of Navarra, Pamplona, Spain
   Molecular versus flow MRD methods in multiple myeloma.
   Ramon Garcia-Sanz, University Hospital of Salamanca, Salamanca, Spain

11:30 - 12:00 Coffee break

12:00 - 13:30 Section 2: Flow MRD methods in multiple myeloma: future perspectives
   Chair: TBD
   The EuroFlow approach for the diagnosis and classification of hematological malignancies.
   Jacques van Dongen, Erasmus MC, Rotterdam, The Netherlands

13:30 - 14:30 Lunch break

14:30 - 16:00 Section 3: New highly sensitive flow cytometry approach for the detection of MRD in multiple myeloma. The new method
   Chair: TBD
   Instrument set up and cross platform applicability.
   Tomas Kalina, Charles University, Prague, Czech Republic
   Flow-MRD in multiple myeloma: panel design.
   Alberto Orfao, University of Salamanca, Salamanca, Spain

16:00 - 16:30 Coffee break

16:30 - 18:00 Section 4: New highly sensitive flow cytometry approach for the detection of MRD in multiple myeloma. The new method (continued)
   Sample preparation protocol for high-sensitivity flow-MRD and its impact on panel design.
   Juan Flores-Montero, University of Salamanca, Salamanca, Spain
   Data analysis and interpretation.
   Alberto Orfao, University of Salamanca, Salamanca, Spain

18:00 - 18:30 Discussion and concluding remarks
   Jacques van Dongen, Erasmus MC, Rotterdam, The Netherlands
   Bruno Paiva, University of Navarra, Pamplona, Spain
   Jeroen te Marvelde, Erasmus MC, Rotterdam, The Netherlands
   Juan Flores-Montero, University of Salamanca, Salamanca, Spain
   Dinner at Colegio Arzobispo Fonseca

Saturday, 22nd March 2014

8:30 - 10:30 Parallel Sessions
   Session A.
   Meet the expert, round table
   Maria Victoria Mateos, University Hospital of Salamanca, Salamanca, Spain
   Jesus San Miguel, University of Navarra, Pamplona, Spain
   Brian Durie, International Myeloma Foundation
   Alberto Orfao, University of Salamanca, Salamanca, Spain
   Ramon Garcia-Sanz, University Hospital of Salamanca, Salamanca, Spain
   Session B.
   Laboratory “hands-on” workshop on flow-MRD in multiple myeloma. Instrument set-up and calibration & Sample preparation protocol
   Monitors:
   Tomas Kalina, Charles University, Prague, Czech Republic
   Bruno Paiva, University of Navarra, Pamplona, Spain
   Jeroen te Marvelde, Erasmus MC, Rotterdam, The Netherlands
   Juan Flores-Montero, University of Salamanca, Salamanca, Spain

10:30 - 11:00 Coffee break

11:00 - 12:30 Joint session on Data analysis
   Alberto Orfao, University of Salamanca, Salamanca, Spain
   Brian Durie, International Myeloma Foundation
   Bruno Paiva, University of Navarra, Pamplona, Spain
   Maria Victoria Mateos, University Hospital of Salamanca, Salamanca, Spain
   Jesus San Miguel, University of Navarra, Pamplona, Spain

12:30 - 13:15 Discussion and conclusion
   Chairpersons:
   Alberto Orfao, University of Salamanca, Salamanca, Spain
   Brian Durie, International Myeloma Foundation
   Bruno Paiva, University of Navarra, Pamplona, Spain
   Maria Victoria Mateos, University Hospital of Salamanca, Salamanca, Spain
   Jesus San Miguel, University of Navarra, Pamplona, Spain

13:15 - 14:00 Lunch and departure

Summary

During the last eight years, the EuroFlow Consortium has developed novel standardized strategies for the diagnosis and classification of hematological malignancies, using a highly reproducible n-dimensional flow cytometry. More recently, flow cytometry based minimal residual disease (MRD) assessment has become one of the major projects of the EuroFlow Consortium. Recent advances in multiple myeloma treatment and close collaboration among several EuroFlow laboratories and the IMF have advanced the evolution of MRD detection for this disease.

The International Myeloma Foundation-EuroFlow workshop was specifically organized as an educational activity focused on the “Innovative, automated and high-sensitive flow cytometry method developed for standardized detection of minimal residual disease in myeloma patients,” particularly to those laboratories involved in IMF-sponsored/promoted clinical trials.

For this purpose, the complete workflow – from instrument set-up, panel design and optimization of sample preparation to automated data analysis and data interpretation – will be addressed in detailed presentations and roundtable discussions, including “hands-on” sessions. The ultimate goal is to provide full education for translation of the new protocol into routine MRD detection in multiple myeloma.