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EDUCATIONAL BROCHURE

WMDA EDUCATION

your online learning programme



Course category

STEM CELL DONATION AND TRANSPLANTATION



Donor Coordinator programme

| Stem cell donation and transplantation |
| Donor Coordinator programme | 6 modules |

The Donor Coordinator Level will provide you with the **fundamental knowledge** about stem cells, collection procedures, indications for stem cell transplantation and human leukocyte antigens (HLA).

If you want to learn more about the basic concepts of immunology, basic concepts of HLA and HLA Matching the Search Coordinator Programme Basic Level might be interesting for you!



WHY THIS COURSE?

The modules of the Donor Coordinator programme are part of the WMDA SCCP Basic level course and selected for the needs of donor coordinators to gather background knowledge valuable in their daily jobs.

WHO CAN PARTICIPATE?

- Anyone working in a registry supporting functions with interests in stem cells, collection procedures, indications for stem cell transplantation and human leukocyte antigens (HLA).
- Donor coordinators who just started to work in the field of stem cell transplantation, to get a profound background and basic knowledge of haematopoietic stem cell transplantation.
- Professionals in the field of stem cell transplantations working as a donor coordinator, to refresh your basic knowledge of haematopoietic stem cell transplantation.

Detailed course outline

The modules consist of a lecture of approximately 1 hour, accompanied by a handout, a glossary, recommended literature and finishes with a multiple-choice test.

MODULE 1 Cells and Haematopoietic System

Course speaker(s): Enric Carreras. MD. PhD Affiliation REDMO. José Carreras Foundation, Barcelona [ES]

Learn about the different types of stem cells, like embryonic and adult stem cells, and the differentiation of these stem cells into diverse cell types. The haematopoietic stem cells are discussed in more detail as well as their role and all blood cells and components that derive from these stem cells. Furthermore, the module describes diseases that arise from the haematopoietic stem cell lineage, the scientific basis behind haematopoietic stem cell transplantation, and the different sources with their pros and cons.

MODULE 2 Medical Basics of Haematopoietic Stem Cell Transplantation

Course speaker(s): Bronwen E. Shaw, MBChB, PhD CIBMTR, Milwaukee [US]

Learn about the transplant procedures, including transplant indications, the preparatory treatments of the patient, post-transplant complications (like graft failure, Graft versus Host Disease, infection, relapse) and the importance of follow-up and monitoring of late post-transplant effects on the patient.

MODULE 3 Registries and Cord Blood Banks

Course speaker(s): Evelyne Marry, MD Hematopoietic Stem Cell Department, Agence de la Biomédecine, Saint-Denis La Plaine Cedex, [FR]

Learn about the transplant procedures, including transplant indications, the preparatory treatments of the patient, post-transplant complications (like graft failure, Graft versus Host Disease, infection, relapse) and the importance of follow-up and monitoring of late post-transplant effects on the patient.

MODULE 4 The Donor Experience

Course speaker(s): Anne-Marie van Walraven, PhD Sanquin Donor Services, Amsterdam [NL]

This module provides more information on the procedures around registration, donation and follow-up from a donor's perspective. We are usually focused on curing patients, but the donor's health needs to be protected as well with for example the WMDA standards and informed consents. The donor experience after donation might have a direct impact on the matched patient and on the donor registry.

MODULE 5 Human Leukocyte Antigens (HLA)

Course speaker(s): Carolyn Hurley, PhD, D(ABHI) Department of Oncology, Georgetown University, Washington DC [US]

Learn about the role of HLA in the immune response against foreign tissues, the differences between HLA class I and class II and why we find so much HLA diversity in the human population. Also, the influence of HLA in some diseases, like infectious diseases and autoimmune diseases are explained as well as the interaction of HLA in drug toxicities.

MODULE 6 Search Strategy and Web Tools for Search

Course speaker(s): Machteld Oudshoorn, PhD Matchis Foundation and Department of Immunohematology and Blood Transfusion, Leiden University Medical Centre, Leiden [NL]

Carolyn Hurley, PhD, D(ABHI) Department of Oncology, Georgetown University, Washington DC [US]

Learn about ways how search coordinators find the best-matched donor for the patients. This module explains how you should start a search for a stem cell donor by evaluating the patient's HLA, how to interpret search reports and select potentially matched donors for further testing. During the donor search, you can use many different web tools to evaluate the HLA of the patient or predict the HLA genotype and haplotypes from the potential donors. When and how to use those webtools is explained in this module as well as in the WMDA search tools guide.

WHAT IS THE COURSE CURRICULUM?

If you sign up for the total course, you will receive access to 9 modules and a final exam. It is also possible to purchase selected modules only. Each module has a 1-hour lecture accompanied by a handout, a glossary and finishes with a multiple-choice test. Depending on your educational background, you will spend around 3-5 hours per module.

The final module tests consist multiple choice questions about the lecture and the recommended literature. You have 3 attempts to complete the test and the highest score will count. Once you have started with the test, there is no time limit in which the test should be completed.

After finishing the modules, you will receive a certificate as proof of your participation.

WHO ARE THE SPEAKERS?

The speakers in the WMDA SCCP Basic Level are experts with many years of experience in research, clinical testing, patient care and knowledge of the field of haematopoietic stem cell transplantation.

HOW TO REGISTER?

Go to education.wmda.info and find your course. After completing the registration form you will receive instructions on how to start the course.

Course pricing

*Total course**

€ 765

** Prices are excluding VAT. VAT is only calculated for people and organisations residing in the Netherlands.*

Detailed course outline

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MODULE 5 Basic Concepts in Immunology

Course speaker(s): Carolyn Hurley, PhD, D(ABHI) Department of Oncology, Georgetown University, Washington DC [US]

Learn about the basics of our immunology system, like the organs and cells that are involved, how the immune system recognises self and non-self-cells, how immune cells communicate, and the early (innate) and late-onset (adaptive) responses of the immune system to 'danger'. Also, the basic concepts of transplantation immunology are described, including graft rejection and Graft versus Host Disease.

MODULE 6 Basic Genetics of HLA

Course speaker(s): Carlheinz Müller, MD, PhD ZKRD, Ulm [DE]

Learn about the basic concepts of genetics, like the significance of HLA proteins on the cells in the haematopoietic stem cell transplantation. This module describes where you can find the genetic material coding for the HLA proteins, but also definitions like haplotype and diplotype, homozygous and heterozygous, recombination and mutations. Understanding population genetics can be useful in the search for an unrelated donor for your patient and calculations based on this can help to predict if a certain donor might be a match.

MODULE 7 Human Leukocyte Antigens (HLA)

Course speaker(s): Carolyn Hurley, PhD, D(ABHI) Department of Oncology, Georgetown University, Washington DC [US]

Learn about the role of HLA in the immune response against foreign tissues, the differences between HLA class I and class II and why we find so much HLA diversity in the human population. Also, the influence of HLA in some diseases, like infectious diseases and autoimmune diseases are explained as well as the interaction of HLA in drug toxicities.

MODULE 8 HLA Matching

Course speaker(s): Jean-Marie Tiercy, PhD Department of Genetics and Laboratory Medicine, University Hospital, Geneva [CH]

Learn about the selection of HLA matched haematopoietic stem cell donors. You learn about HLA compatibility, predicted HLA alleles on the HLA-B-C and HLA-DRB1-DQB1 associations and the clinical impact of transplantations with HLA mismatched donors or cord blood units. Also, several (online) databases where HLA alleles and haplotype frequency estimations can be found.

MODULE 9 Search Strategy and Web Tools for Search

Course speaker(s): Machteld Oudshoorn, PhD Matchis Foundation and Department of Immunohematology and Blood Transfusion, Leiden University Medical Centre, Leiden [NL]

Carolyn Hurley, PhD, D(ABHI) Department of Oncology, Georgetown University, Washington DC [US]

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Search Coordinator Certificate Programme Advanced Level

| Stem cell donation and transplantation |
| Search Coordinator Certificate Programme Advanced Level | 9 modules |

The Search Coordinator Certificate Programme (SCCP) Advanced level can support you to **increase your knowledge** and to **dive deeper** on subjects like HLA nomenclature, selection of mismatched donors and more complicated search cases for donors and cord blood units.



WHY THIS COURSE?

When you do have experienced in the selection of unrelated stem cell donors, you might start to wonder about the selection methods and the evidence behind those methods and selection criteria. Some modules are also valuable for people not directly involved in donor selection, like donor recruiters, donor coordinators, transplant coordinators, laboratory technicians, nurses, physicians, or any other donor registry supporting position.

WHO CAN PARTICIPATE?

The course is primarily meant for search coordinators and other professionals facilitating unrelated stem cell donor searches. However, some modules can also be valuable for people with other backgrounds working in the field of stem cell transplantation.

WHAT IS THE COURSE CURRICULUM?

If you sign up for the total course, you will receive access to 9 modules and a final exam. It is also possible to purchase selected modules only. Each module has a 1-hour lecture accompanied by a handout, a glossary and finishes with a multiple-choice test. Depending on your educational background, you will spend around 3-5 hours per module.

The final module tests consist multiple choice questions about the lecture and the recommended literature. You have 3 attempts to complete the test and the highest score will count. Once you have started with the test, there is no time limit in which the test should be completed.

After finishing the modules, you will receive a certificate as proof of your participation.

WHO ARE THE SPEAKERS?

The speakers in the course are experts with many years of experience in research, clinical testing, patient care and knowledge of the field of haematopoietic stem cell transplantation.

HOW TO REGISTER?

Application to the SCCP Advanced Level can only be accepted if the SCCP Basic Level was successfully completed OR when you passed an entrance test. For the entrance test, we will invoice € 77,-.*

Go to education.wmda.info and find your course. After completing the registration form you will receive instructions on how to start the course.

Course pricing

	<i>Total course*</i>
<i>For WMDA/EBMT/EFI members and students:</i>	€ 711.-
<i>Price to sign up as a student (for non-members):</i>	€ 108.-

**Prices are excluding VAT. VAT is only calculated for people and organisations residing in the Netherlands.*

Detailed course outline

The modules consist of a lecture of approximately 1 hour, accompanied by a handout, a glossary, recommended literature and finishes with a multiple-choice test.

MODULE 1 HLA Nomenclature and typing techniques

Course speaker(s): Ann-Margaret Little, PhD, SRCS, FRCPath H&I Service, Gartnavel General Hospital, Glasgow [UK]

Course content: Why do we see so many different results on HLA reports, like HLA-A2, A*02:01, A*02: HJWK? In this module, you will learn how the HLA nomenclature works and about the relationship between the different techniques used for HLA typing. Also, the definition of ambiguities is explained and how to deal with those ambiguities in reporting HLA typing results.

MODULE 2 Selecting an HLA mismatched donor

Course speaker(s): Effie Petersdorf, MD Fred Hutchinson Cancer Research Center, Seattle [US]

Course content: Sometimes a matched unrelated stem cell donor is unfortunately not available. In that case, stem cells from a mismatched unrelated donor might be the only option to treat the patient. What are the risks of transplantation with a mismatched stem cell donor? Could it be more beneficial in some diseases to use an HLA mismatched donor over a matched donor due to an anti-leukaemia effect? Which HLA mismatches should be avoided when you select a mismatched donor according to the literature? During this module, all those questions will be discussed and answered.

MODULE 3 Beyond HLA: What non-HLA characteristics are being considered in donor selection today?

Course speaker(s): Bronwen E. Shaw, MBChB, PhD CIBMTR, Milwaukee [US]

Course content: You already know that HLA compatibility is the major selection criterium for matching patients to stem cell donors. However, when you have more than one HLA matched donor, which other non-HLA factors should we take into consideration and which ones are more important than others? Non-HLA factors like gender, CMV, blood group and age will be discussed, including their effects on transplantation outcome.

MODULE 4 The role of HLA in cord blood transplantation

Course speaker(s): Mary Eapen, MD, MS Medical College of Wisconsin, Milwaukee, USA CIBMTR, Milwaukee [US]

Course content: Selection an unrelated stem cell donor is a different procedure than selecting a cord blood unit. HLA matching is important for both procedures, but for cord blood units the cell dose is also a major selection criterion. The lecture explains the influence on survival of different cell doses and HLA matching as well as the single unit and double-unit cord blood transplantation.

MODULE 5 Non-HLA aspects of umbilical cord blood unit selection

Course speaker(s): Sergio Querol, MD, PhD REDMO, Barcelona Cord Blood Bank, Barcelona [ES]

Course content: What processes and factors can influence the quality of a cord blood unit? And what is the effect on engraftment? Very useful information when you are involved in the selection of cord blood units for your patients. Also, the interpretation of cord blood unit reports is explained as well as the Eurocord recommendations for cord blood unit selection.

MODULE 6 Science behind OptiMatch Search and Genotype Prediction Algorithm

Course speaker(s): Hans-Peter Eberhard, PhD ZKRD, Ulm [DE]

Course content: Many search coordinators and other professionals involved in donor selection are using the WMDA Search & Match Service. In this programme, a search algorithm, called OptiMatch, predicts the chance that a donor of a cord blood unit will match on HLA with your patient. But how does such an algorithm work and based on what information are the probabilities calculated? You will get more insights of the results shown in the Search & Match Service in this module.

MODULE 7 Case studies on donor search I

Course speaker(s): Jason Dehn, MPH, CHT BeTheMatch/ NMDP, Minneapolis MN [USA]

Course content: As professional selecting donors for stem cell transplantations, you've probably dealt with several or multiple difficult search cases. During this lecture, 2 complicated cases are presented with their search strategy to select a potential matched donor or cord blood unit.

MODULE 8 Case studies on donor search II

Course speaker(s): Machteld Oudshoorn, PhD Matchis Foundation and Department of Immunohematology and Blood Transfusion, LUMC [NL]

Course content: This module shows you the importance of questioning the HLA typing results of the patient especially when the results show multiple rare alleles. Also, the ethnicity of the patient and donors might be useful to predict HLA matching as allele and haplotype frequencies are usually specific for populations/ ethnicities. With the help of several cases, tips, tricks and pitfalls are presented and explained.

MODULE 9 Deciding on Stem Cell Source and the Back-up Donor

Course speaker(s): William Hwang, MD Singapore Cord Blood Bank, Singapore [SG]

Course content: What do physicians consider when deciding on stem cell source for their patient in need of a stem cell transplant? For stem cell transplantation different sources can be used, like bone marrow, PBSC or cord blood. Which source is most appropriate for a patient, is based on studies on differences in engraftment, Graft versus Host Disease and survival, but also on the disease and disease stage of the patient? However, we should also consider the risks of collection of the different sources for the donors.

Search Coordinator Continuing Education programme

| Stem cell donation and transplantation |
| Search Coordinator Continuing Education programme | 4 modules |

The WMDA developed the Search Coordinator Continuing Education programme for professional working in the field of blood stem cell transplantation who want to stay up to date with the latest developments in the field.



WHY THIS COURSE?

A project team of the WMDA pillar “Supporting Global Development” in collaboration with the WMDA office and international content experts prepared this programme and we hope that this programme will be a useful addition to your knowledge and expertise and will be beneficial for your daily work.

WHO CAN PARTICIPATE?

This course is for professional working in the field of haematopoietic stem cell transplantation. This programme is valuable for anyone working in this field.

WHAT IS THE COURSE CURRICULUM?

This course is based on a subscription for the total course. It is possible to purchase selected modules only. If you sign up, you will receive access to 8 modules. In general, the modules can be subdivided into 2 formats:

1. The module contains a lecture, handout file with the slides, multiple-choice test and evaluation.
2. The module is based on online information and sources from external websites and include guidance, multiple-choice test and evaluation.

Depending on your educational background, you will spend around 3-5 hours per module.

After finishing the modules, you will receive a certificate as proof of your participation.

WHO ARE THE SPEAKERS?

The speakers of the (module(s) containing a lecture) are experts with many years of experience in research, clinical testing, patient care and knowledge of the field of haematopoietic stem cell transplantation.

HOW TO REGISTER?

Go to education.wmda.info and find your course. After completing the registration form you will receive instructions on how to start the course.

Course pricing

	<i>Total course*</i>
<i>For WMDA/EBMT/EFI members and students:</i>	€ 316.-
<i>Price to sign up as a student (for non-members):</i>	€ 108.-

**Prices are excluding VAT. VAT is only calculated for people and organisations residing in the Netherlands.*

Detailed course outline

The modules consist of a lecture of approximately 1 hour, accompanied by a handout, a glossary, recommended literature and finishes with a multiple-choice test.

MODULE 1 Obstacles to Donation- Donor Health Issues

Course speaker(s): Hung Yang, MD Australian Bone Marrow Donor Registry, Alexandria [AU]

Course content: This module describes the principles of donor health assessments, including the risk for both the donor and the patient/recipient, the different stages and time points when donor health assessments occur, and examples of identified donor health issues.

MODULE 2 Hematologic System Diseases

Course speaker(s): Effie Petersdorf, MD Fred Hutchinson Cancer Research Center, Seattle [US]

Course content: In this module, you will learn more about hematologic system diseases, like anaemia, leukaemia, plasma cell dyscrasias and myeloproliferative diseases. The module describing the main characteristics of the following hematologic system diseases: 1) Anaemia 2) Leukaemia 3) Plasma cell dyscrasias 4) Myeloproliferative diseases.

MODULE 3 Basic Biology and Genetics of Killer Cell Immunoglobulin Like Receptors (KIR)

Course speaker(s): Carolyn Hurley, PhD, D(ABHI) Department of Oncology, Georgetown University, Washington DC [US]

Course content: This module describes the biology behind the natural killer (NK) cell response and the function of Killer Cell Immunoglobulin-Like Receptors in normal situations and in relation to haematopoietic stem cell transplantation.

MODULE 4 Transplant Indications and Outcomes

Course speaker(s): Mary Eapen, MD, MS Medical College of Wisconsin, Milwaukee, USA CIBMTR, Milwaukee [US]

Course content: In this module, you will learn more about disease-specific indications for haematopoietic stem cell transplant and outcomes.

Course category

Quality and accreditation

WMDA Reviewers Training Programme

| Quality and accreditation |
| WMDA Reviewers Training Programme | 2 courses; 15 modules |

This unique programme is developed to get trained in the WMDA Standards and the WMDA accreditation programme.

The training programme is divided into two courses: *WMDA Standards course* AND *WMDA Inspections course*.



WHY THIS PROGRAMME?

The courses *WMDA Standards course*, and *WMDA Inspections course* give tips and tricks on how to prepare an application. If your organisation is planning to prepare an application for WMDA certification, qualification, or accreditation, we recommend signing up for the programme. This tips and tricks will reduce time, in the process of preparing an application.

WHO CAN PARTICIPATE?

- New potential WMDA reviewers.
- Staff preparing for WMDA certification, accreditation or qualification

WHAT IS THE COURSE CURRICULUM?

If you sign up for the WMDA Reviewer Training Programme you will start with the WMDA Standards course and after successfully completing you will get automatic access to the

WMDA Inspection courses. Each course consists of modules with documentation that you should read and get familiar with. The modules cover WMDA Standards; WMDA Accreditation; WMDA Certification and WMDA Qualification; Accreditation Policies and Procedures; On-site Audits.

Each module consists of documentation that the student should read and get familiar with. After successful completion of the module test, the student will receive credit for that module.

HOW TO REGISTER?

Go to education.wmda.info and find your course. After completing the registration form you will receive instructions on how to start the course.

Course pricing

For staff members of WMDA aspirant, provisional or regular member organisations

Free

For non-members:

€ 131.-*

**Prices are excluding VAT. VAT is only calculated for people and organisations residing in the Netherlands.*

WANT TO BECOME A REVIEWER?

WMDA is looking for enthusiastic professionals who want to become a reviewer. If you are considering becoming a reviewer, please ensure you are well-informed and read more about becoming a reviewer on WMDA Share, WMDA's online collaboration tool.

When you meet the criteria to become a reviewer a next step is to enrol as a trainee reviewer. The WMDA Reviewer Training Programme prepares you to become a trained reviewer. As WMDA reviewer, you will receive professional and personal benefits.

Questions or more information sent an email to accreditation@wmda.info

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