Dear WMDA members,

As another year comes to a conclusion, we again reflect on the activities and accomplishments of WMDA. This annual report provides a useful overview of the work done over the last year and points to important work that will continue into the next year and beyond, all to the benefit of the membership and the donors and patients that we serve.

One of the major accomplishments in 2016 was the transformation of the organisational structure of WMDA, motivated by the opportunity to bring BMDW and NetCord together with WMDA. These three organisations have addressed separate but increasingly overlapping needs of the blood and marrow transplant community and by bringing them together into a single organisation it will allow us to more effectively and efficiently serve members, donors and transplant centres. This could only have been accomplished with the strong support of the leadership and membership of each organisation. Special thanks goes to Frans Claas and Jeff Chell on behalf of BMDW and to Etienne Baudoux on behalf of NetCord, and to Claudia Rutt for her guidance and assistance.

In order to take full advantage of this growing organisation, new bylaws were adopted and draft of new house rules have been circulated for comment. These documents are intended to structure the new organisation in a manner that will capitalize on the opportunities presented through the consolidation.

The WMDA meetings took place this year in Singapore and Minneapolis. These meetings provided a great opportunity for the membership to meet and work on important business of the organisation. Special thanks to Jane Prior and her team that provided a wonderful experience for us while in Singapore.

The good work of the WMDA can only happen if the membership is fully engaged in these efforts. I urge all of the registries and cord blood banks to allocate some portion of staff time to supporting the various initiatives you, as members, have agreed are important to pursue. I understand and appreciate that everyone is fully engaged in the day to day work of the registries and banks, but making time to work on any one of the various committees or working groups would greatly benefit the membership and your organisation.

As I wrap up my time as President of WMDA, I note that none of the work over the last two years, or in the preceding years for that matter, could have been accomplished without the strong leadership of Lydia Foeken and her staff. Lydia has been the key to much of our success, providing a constant and reliable hand on the association’s activities, and making it possible for the membership to achieve the many the goals we
had set for the organisation over these last two years.

The role of the president will now be filled by Carlheinz Müller. I can think of no one better to lead us for the next two years. His depth of experience, breadth of knowledge, and commitment to the organisation is unmatched and I expect that he, with your support, will be able to build on the great foundation that exists today.

Sincerely,

Michael Boo, J.D.
President, WMDA 2015-2016
Contents

Highlights of 2016 – Planning of 2017 6

Activities of the WMDA Board Committees 8
- Accreditation
- Finance
- Nominating
- S(P)EAR
- Standards

Activities of WMDA Working Groups 16
- Cord Blood
- Information Technology
- Medical
- Quality & Regulation
- Registries

World Marrow Donor Day 36

Projects done by the WMDA office 38

Financial statement 40

WMDA Executive Committee and Board Officers 2016 42
Dear WMDA members,

In the face of rapidly advancing science and resulting clinical practice changes, we are constantly challenged to adapt. Registries and cord blood banks balance competing priorities. Demand for additional services, services to transplant centres continues to rise, as does the need to better allocate limited resources and to increase quality and value. Our sector is subject to continuous technological innovation and globalisation. In this changing environment we have to keep in mind the fundamental mission:

providing high quality hematopoietic stem cell products while maintaining the welfare of the donors.

WMDA will strive to continue this effort by optimising the BMDW Search & Match Service. This is also an opportunity for cost effectiveness. For example, costs for ICT equipment and staff are a heavy burden for small and medium-sized registries, but it is usually not an option to work without ICT personnel. Intensifying collaboration in this area could reduce costs, and be of direct benefit for the smaller and medium-sized registries.

The 2016 International Donor Registry Conference (IDRC) in Singapore, with the theme: “Breaking barriers, building futures” had a high turnout of attendees and was well received. Singapore is an example that a small registry can achieve quite a few milestones in a year. They launched a social media campaign, “Project Tomorrow”, organised the IDRC and hosted 220 delegates from 43 countries, and participated actively in World Marrow Donor Day. The Minister of Social and Family Development joined the registry by signing up as bone marrow donor and on top of this the Singapore Registry achieved the WMDA Qualification. Not only Singapore, but many registries worldwide achieved milestones which can be reviewed on the WMDA
Facebook page. It is inspiring to see activities from all over the world to achieve such high success.

2017 will bring us new challenges. The three organisations, BMDW, NetCord and WMDA will be merged into one professional organisation. In addition, the WMDA office will work on improving the SEAR reporting, coordinating the workflow for accreditation and, last but not least, the implementation of the unique donor number, Global Registration Identifier Donor (GRID), and develop phase 2 of BMDW.

All these projects cannot be done without our members and our professional WMDA volunteers. They are responsible for much of our success as the knowledge organisation on unrelated stem cell donation. Their time and expertise deliver well-defined global standards and recommendations completed through our committees and working groups. Their contributions are essential in educating other members and mentoring colleague registries. We are profoundly grateful for their volunteerism.

Through our focus on donors and encouragement of collaboration and innovation, WMDA is dedicated to serving our members in this quickly changing landscape. The projects and initiatives reported by the committees and working groups in this Activities Report shows our commitment to care for the donors who save patients’ lives.

Sincerely,

Lydia Foeken
Executive director
Activities of the WMDA

Board Committees

Board Committee Accreditation Steering (BCASC) and Board Committee Accreditation (BCAS)

This year, seven registries received WMDA Qualification:
- 2 for adult volunteer donors: South Africa Bone Marrow Registry (ZA), Singapore Bone Marrow Donor Programme (SI).
- 2 for cord blood units: HPC Registry (RU), Hellenic Cord Blood Bank (GR).
- 3 for adult volunteer donors and cord blood units: Hema Quebec Stem Cell Donor Registry and Cord Blood Bank (CA), Institute for Clinical and Experimental Medicine - Czech Stem Cells Registry (CZ), Finnish Stem Cell Registry (FI).

This represents an increase of 30% of the 2015 total WMDA qualified and accredited registries.

Eight registries renewed WMDA Accreditation:
- 4 for adult volunteer donors: Welsh Bone Marrow Donor Registry (GB), Irish Unrelated Bone Marrow Registry (IE), Canadian Blood Services OneMatch Stem Cells & Marrow Network (CA), Ezer Mizion Bone Marrow Donor Registry (IL).
- 4 for adult volunteer donors and cord blood units: (ZKRD, DE), Italian BMDR (IT), Be The Match -National Marrow Donor Programme (US), British Bone Marrow Registry (UK).

As of the end of 2016, there were two registries under review and two letters of intent have been received.

As we begin 2017, there are a total of 28 WMDA qualified/accredited registries. In total, 70% of the unrelated volunteer donors listed in the database of Bone Marrow Donors Worldwide are included within WMDA Qualified/Accredited registries.

The reviewers and the members of the Accreditation (Steering) Committee worked on an e-learning website, which was launched in June 2016. The e-learning site assists in the training of reviewers. In 2016 eight new ad-hoc reviewers joined. The e-learning website is also available for WMDA members, who are interested to learn about WMDA Standards and the WMDA Accreditation Programme.

As the new WMDA Standards were finalised, the guidance of the WMDA Standards needed to be

The Board Committee Accreditation’s mission is:
- To promote harmony between worldwide stem cell donor registries and cord blood banks and encourage uniformity of practice based on WMDA Standards.
- To encourage registries to seek and empower them to achieve WMDA accreditation through the adoption of and adherence to WMDA Standards.
- To conduct and administer the WMDA accreditation system.
updated to include the new standards effective in January 2017. The guidance is publicly available in WMDA Share (WMDA Guidance WMDA Standards (version January 1, 2017). To get familiar with the new standards, a YouTube video was created, which is available at: https://www.youtube.com/watch?v=jNSyD0oHilo

To make it easier for registries to evaluate if they are still compliant with the WMDA Standards an internal evaluation procedure was developed. WMDA qualified and accredited registries need to perform this evaluation once every 4-year for an accredited registry and twice during a 5-year cycle of a qualified registry. Also the current workflow of the accreditation programme is and will be further streamlined. Based on a feedback survey, which is sent to each registry that has gone through the application process and the feedback from the review teams the accreditation process will be made easier for applicant registries and reviewers. You will read more about this in the accreditation newsletter, which has been launched in 2016.

The bold-marked registries receiving their WMDA Qualification or WMDA Accreditation certificate in 2016.

<table>
<thead>
<tr>
<th>WMDA Qualified/Accredited Registries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthony Nolan (UK)</td>
</tr>
<tr>
<td>Australian Bone Marrow Donor Registry (AU)</td>
</tr>
<tr>
<td>Be The Match operated by the NMDP (US)</td>
</tr>
<tr>
<td>Bone Marrow Donor Programme (SG)</td>
</tr>
<tr>
<td>British Bone Marrow Donor Registry (UK)</td>
</tr>
<tr>
<td>Canadian OneMatch Stem Cell and Marrow Network (CA)</td>
</tr>
<tr>
<td>Cyprus Bone Marrow Donor Registry (CY)</td>
</tr>
<tr>
<td>Czech National Marrow Donor Registry (CZ)</td>
</tr>
<tr>
<td>Ezer Mizion Bone Marrow Donor Registry (IL)</td>
</tr>
<tr>
<td>Finnish Stem Cell Registry (FI)</td>
</tr>
<tr>
<td>France Greffe de Moelle Registry (FR)</td>
</tr>
<tr>
<td>Gift of Life Marrow Registry (US)</td>
</tr>
<tr>
<td>Hadassah Bone Marrow Donor Registry (IL)</td>
</tr>
<tr>
<td>Hellenic Cord Blood Bank (GR)</td>
</tr>
<tr>
<td>Hema Quebec Stem Cell Donor Registry and Cord Blood Bank (CA)</td>
</tr>
<tr>
<td>HPC Registry (RU)</td>
</tr>
<tr>
<td>Institute for Clinical and Experimental Medicine -Czech Stem Cells Registry (CZ)</td>
</tr>
<tr>
<td>Irish Unrelated Bone Marrow Donor Registry (IE)</td>
</tr>
<tr>
<td>Italian Bone Marrow Donor Registry (IT)</td>
</tr>
<tr>
<td>Japan Marrow Donor Program (JP)</td>
</tr>
<tr>
<td>Matchis Foundation (NL)</td>
</tr>
<tr>
<td>New Zealand Bone Marrow Donor Registry (NZ)</td>
</tr>
<tr>
<td>Norwegian Bone Marrow Donor Registry (NO)</td>
</tr>
<tr>
<td>South Africa Bone Marrow Registry (ZA)</td>
</tr>
<tr>
<td>Swiss Blood Stem Cells (CH)</td>
</tr>
<tr>
<td>Buddhist Tzu Chi Stem Cells Center (TW)</td>
</tr>
<tr>
<td>Welsh Bone Marrow Donor Registry (GB)</td>
</tr>
<tr>
<td>Zentrales Knochenmarkspender-Register Deutschland (DE)</td>
</tr>
</tbody>
</table>
The Finance Committee supervised the accounts 2016. The main activity was helping to prepare the financial aspects of the merger between WMDA, BMDW and NetCord and to establish a combined budget 2017 for the enlarged organisation. This budget was approved in the board meeting.

Board Committee Nominations (BCNO)

The Nomination Committee reviewed the nominations received for the vacant positions. The following set of candidates have been proposed to and approved by the WMDA membership:

- Jeff Szer (AU), President-elect
- Amy Ronneberg (US), Treasurer
- Bette Braem (US), Chair-elect WG Quality and Regulation
- Susana Gomez (ES), Chair-elect WG Cord Blood
- Kieran Herrity (UK), Member Board Committee Accreditation representing the WG Cord Blood.
Nominations and Elections 2016

Up to now, one of the duties of the president-elect was to steer the nomination and election process and this gives me the pleasure to report on the changes in WMDA appointments that came into effect at the beginning of 2017. With the year 2016 the term of eight elected WMDA positions was coming to an end.

Where the current holders were still eligible for the next term and willing to continue, the WMDA Board decided not to actively seek concurrent nominations and to propose to the membership to confirm their appointment for the coming term. This applied to the roles of Jane Prior (Singapore, SG) as Vice President Asia/Australia/Pacific Islands, Simona Pollichieni (Genova, IT) as member of the Standards Committee and Heidi Elmoazzen (Ottawa, CA) as member of the S(P)EAR Committee whose continuation was unanimously accepted by the general membership in Minneapolis in November.

For four of the five other positions we ended up with a single nomination and only in one case the WMDA Board has to vote on its recommendation and eventually all proposed nominees were also unanimously approved by the membership.

In three cases the position became vacant due to the current holder entering office. The new president-elect is Jeff Szer from (Melbourne, AU) who is well known in our society not only as current chair of the Medical Working Group but also since his unique sense of humor matches his scientific qualities.

Our new treasurer is Amy Ronneberg (Minneapolis, US) who joined the NMDP in the summer of 2013 as chief financial officer. Her expertise will a special asset to WMDA. The last eight years this position was held by Rudolf Schwabe from Bern (CH).

The new chair-elect of the Working Group Quality and Regulatory is Bette Bream also from Minneapolis (USA) following the new chair Salmah Ahmed (London, UK). Bette has been with the NMDP for well over 10 years’ responsible quality and regulatory issues most of the time.

The WMDA Board proposed Susanna Gomez from Barcelona (Spain) as new chair-elect for the Cord Blood Working Group following the new chair Merry Duffy (Minneapolis, US). For eight years Susanna has been one of the key persons in the establishment of the cord blood bank of the Anthony Nolan in Nottingham and is now a director in the Barcelona Blood and Tissue Bank.

Kieran Herrity (Bristol, UK) is the new representative of the Working Group Cord Blood in the Accreditation Committee following Arun Prasath (SG) who served in this position as of July 2010. After his university training Kieran acquired more than 15 years of laboratory experience before, over a decade ago, he moved into quality management which is his current responsibility within the British Bone Marrow Registry (BBMR) and the NHS Cord Blood Bank (NHSCBB).

Finally, we had an exceptional nomination since Patrick Bregy announced that he would be leaving Swiss Blood
The S(P)EAR reporting system continues to attract reports from a large number of registries from around the world. One hundred and seventy-three (173) S(P)EARs were reported in 2016, the last group of which will be considered by the committee in the first meeting of the committee in 2017. The committee continued to meet by teleconference multiple times during the year as required by report numbers, as well as face-to-face at the meetings of WMDA.

The appointment of a transport coordinator in the last quarter of 2015 for these incidents has improved the reporting processes and assessment of these incidents in the same way that the existing cord blood expert has assisted in matters relating to the HPC product. We welcomed Ann Woolfrey to the committee who adds this to her Medical Committee leadership role within WMDA. Each of the S(P)EARs reported was individually reviewed by the SPEAR Committee members and discussed if appropriate with the major roles being to identify trends, confirm or alter imputability of the reports and alert the transplant world of urgent matters if any arose. Fortunately, there was no such need in 2016. If necessary, the reporting registry was approached to add or clarify the information given. Feedback was given to the membership during the general membership meetings and the data from those are accessible on the WMDA website.

I am extremely happy that we could win these distinguished and experienced colleagues to fill the vacancies at WMDA and I am looking forward to working with them in the challenging transition phase of our association. I would like close by thanking all those now rotating out, in particular our past president Michael Boo, our past treasurer Rudy Schwabe as well as Julia Pingel, Sergio Querol, Patrick Bregy and Arun Prasath. The WMDA community is extremely grateful for the time and dedication you devoted to our common mission for so many years and will continue to greatly value your accomplishments.

Carlheinz Müller.

Members SEAR
Heidi Elmoazzen (CA), Mirjam Fechter (NL), William Hwang (SI), Matti Korhonen (FI), Thilo Mengling (DE), John Miller (US), Elizabeth O’Flaherty (AU), Ann Woolfrey (US), Bronwen Shaw (US), Jerry Stein (IL), Jeremy Chapman (AU, non-voting), Lydia Foeken (NL, non-voting), Brian Lindberg (US, non-voting).
Board Committee Standards (BCST)

During 2016, the BC Standards had the task to finalise the new edition of WMDA Standards, effective on 1 January 2017. They had meetings both by conference calls and in person. The 2017 edition of WMDA standards was approved by the board in September and is available in WMDA share pages https://share.wmda.info/x/y5c8A. An open meeting and teaching session about the WMDA Standards applicable in 2017 was held at the WMDA fall 2016 meeting where a role-play took place between a WMDA on-site auditor and a staff member of an applicant registry about how to comply with the new WMDA Standards. A video was created to help registries implementing the changes and to serve as training. You can watch the video on: https://youtu.be/jN5yD0gHilo

Members BCST
Mats Bengtsson (SW), Merry Duffy (US), Lydia Foeken (NL), Dena Mercer (Canada), Simona Pollichieni (IT), Ingrid Tistl (DE), and Marieke Chatelain (NL)

WMDA Standards 2017 - session between a registry and on-site auditor
Activities of the Working Groups and Project Groups

Working Group Cord Blood (WGCB)

During 2016 the discussions evolved that the activities of NetCord will be integrated in the WMDA Working Group Cord Blood. From 2017 the working group will continue as the WMDA/NetCord Working Group Cord Blood. The WMDA/NetCord Working Group will combine the activities of both organisations and promote the NetCord-FACT accreditation programme.

The work of the Working Group Cord Blood is divided in three areas:

- **AREA 1: ACTIVITY**
  Each year cord blood banks worldwide submit their data to the WMDA office by filling in a questionnaire. The questionnaire asks about the use of cord blood, the degree of matching and the countries where the cord blood units have been used. The number of cord blood units used for unrelated blood stem cell transplantation is decreasing.

- **AREA 2: PRACTICE**
  One of the key areas of the WMDA Working Group Cord Blood is knowledge. Over time several tools have been developed to assist cord blood banks in their daily operations. The first tool is the so-called "donor-wiki". This is a website where you can check if a future mom is eligible to donate cord blood. You can easily check by visiting the donor wiki and find what international experts say. The web link for the wiki is: [https://wiki.wmda.info](https://wiki.wmda.info)

  The project just started and will continue in 2017. There are some discrepancies with the eligibility of cord blood donors and adult donors. These discrepancies will be discussed in the Donor Medical Suitability Subcommittee of the WMDA.

  A second tool is the operational information of cord blood banks worldwide. Transplant centres would like to know more about the cord blood bank operation. For example, how to an unit is collected, stored and shipped. Therefore, a catalogue has been developed where physicians can have a look when they are considering a specific cord blood unit. The information is available at WMDA Share at: [www.share.wmda.info/display/WMDAREG/Database](http://www.share.wmda.info/display/WMDAREG/Database). You can easily find the country, the name of the cord blood bank and retrieve the information. The information has been collected in 2015. At the end of 2016 the decision is taken to start to work...
on the second edition and to update the information. This will be one of the main projects in 2017. The goal is to categorize the current cord blood units in terms of technical specification, knowing the current banking practices and make a cord blood bank catalogue.

After the match is done for a patient, one of the first steps is to request for a cord blood unit report. For transplant centres physicians it is difficult that the cord blood unit reports are not standardised worldwide. On the other side there is a big need to create a definition for a global data set. A start was made by developing a common cord blood unit report. This common
cord blood unit report (CB21) is available on the WMDA website as a template. Cord Blood Banks can easily modify by adding their logo in the header. The data are in line with the EMDIS definitions, which makes it easy to compile the report from the database.

**AREA 3: EXCHANGE**

Cord blood banks work independently or through a registry. In 2010 the WMDA Working Group Cord Blood published a white paper that describes the steps of the search process. Since 2010 many cord blood banks face a decreasing number of cord blood shipments and the main question is what are the decision criteria to select a cord blood unit. Based on the WMDA Annual Report data and the BMDW database data investigation will be done if it is possible to see
which units are selected and which are not.

With the publication of the Sixth Edition NetCord-FACT International Standards for Cord Blood Collection, Banking, and Release specification requirements for cord blood units stored are specified. The post-thaw viability of CD34+ and CD45+ cells can not be less than 70% and 40%, respectively. These proposed target values necessitate robust and standardised methods among cord blood banks. Therefore, a study was initiated to define target values for the techniques to determine CD34+ and CD45+ cells. The study investigates the pre-analytical method such as thawing and sample dilution, cell labelling method and flow cytometry (FC) method.

The following steps were performed in 2016:

- Identify CBBs that would like to participate: Héma-Québec CBB and R&D, Canadian Blood Services CBB and R&D, Firenze CBB, Barcelona CBB, Düsseldorf CBB, Singapore CBB and Rob Sutherland’s lab in Toronto;
- Protocols were compared; Prepare samples from 12 cord blood units and distribute them to participants;
- Proceed with the analysis and transmit results and raw data to Héma-Québec;
- Compare results (partial);
- Present preliminary results determination of CD34 and CD45 concentrations does not vary dramatically from a cord blood bank to another, high variabilities were obtained for viability of both cell types;
- Analyse raw data and work on statistics.

At the moment the cord blood units listed for international search have limited data upfront, because most of the cord blood units are typed on 3 loci and are tested with minimum essential data (normally TNC). In order to investigate if it is possible to minimise the releasing time the idea was born to establish a fit CB Panel. A FIT CORD BLOOD PANEL is a list of cord blood units that will have similar characteristics and will be openly available for transplant centres. The idea is to create panel with cord blood units from NetCord-FACT accredited cord blood banks with more than 1.5E9 TNC count. These units will be fully compliant with the standards and will undergo full genetic typing and a pre-release status based on mandatory safety, identity, purity and potency testing. The WMDA-NetCord Working Group is working on a protocol for this idea. Public cord blood banks are facing requests from researchers on the possibility of using HLA-homozygous clinical cord blood units for regenerative medicine purposes particularly to generate multi compatible human induced pluripotent stem cells (iPS). It could be new development for emerging new applications on cell therapy. These cord blood units were originally donated for hematopoietic transplantation. Cord blood banks are struggling how to dial with the ethical issues related to a possible transfer of these units for such clinical research trials.

The WMDA-NetCord cord blood working group will work on the following goals:

1. To discuss the key elements that should contain a widespread new potential common informed consent for cord blood banking.
2. To identify and discuss the ethical issues to make available the already donated cord blood units if they were only donated for hematopoietic transplantation.
The Working Group has set up various sub-committees to support the following community goal: To provide a global searching experience that is comprehensive, detailed, and current; representing donors and cords which are readily identifiable, well characterized, consistently matched and easily request-able. With the announced consolidation of the WMDA with the NetCord and BMDW organisations, the governance associated with IT related matters will be revisited.

The work of the Working Group Information Technology is divided into two areas:

- **AREA 1: AUTOMATION OF REGISTRY OPERATION, INTEROPERABILITY AND COMMUNICATION**
  - **International Naming Standards**
    - This subcommittee had collaborated with ICCBBA (International Council for Consistency in Blood Banking Automation) to develop a standard that specifies the allocation rules, format and use of a Global Registration Identifier for Donors (GRID). Phase 3a (of 5) is complete and the focus going forward will be on the operationalisation of the standard through phases 3b-5. Coordination for these phases is organised via the WMDA’s GRID Task Force.

  - **EMDIS**
    - Peer-to-peer electronic communication for WMDA registries is managed through the EMDIS (European Marrow Donor Information System). The Irish Unrelated Bone Marrow Registry has joined the EMDIS community, bringing the community total to 39 member registries, and providing access to 89% of the donors and 65% of the cord blood units available in BMDW. EMDIS Implementation Package 12 (IP12) includes a large number of updates, including the ability to transmit KIR and CCR5 markers, last contact information, further support for GRID and greater transparency regarding donor pools represented by a single EMDIS connection.

- **BMDW**
  - The BMDW has developed and launched a re-designed search and match interface.

  - This re-design had the following objectives:
    - To provide a Probability; Matching Algorithm for
blood unit database:

- Using XML as a common and adaptable format;
- Allows for more data fields to be submitted;
- Aligns with EMDIS Data Dictionary for global ease of use.

**Next Steps**
Continued modifications to the system will be prioritised in alignment with the BMDW user community and strategic direction.

**Probability Matching Algorithm**
The probability algorithm, OptiMatch, is provided by the German ZKRD:
- To help to find a better match for low resolution typed donors based on haplotype frequencies;
- To utilise Global Haplotypes to understand the whole BMDW’s HLA make up.

**Redeveloped User Interface**
The new user interface is intuitive and contemporary:
- To have a more secure ICT system;
- To update and coordinate branding across BMDW;
- To utilise modern technology based on flexible and supported technology.

**Enhanced Data Set**
A new file format has been introduced for the donor and cord blood unit database:
- Using XML as a common and adaptable format;
- Allows for more data fields to be submitted;
- Aligns with EMDIS Data Dictionary for global ease of use.

**WMDA Activities Report 2016**

"The BMDW has developed and launched a re-designed search and match interface”
in the Data Standards Hackathon (DaSH), which is focused upon developing new ways to exchange Next Generation Sequencing (NGS) data for HLA and KIR. Community services focused around HLA and other genetic markers continue to be a theme of that group.

- **Multiple Allele Code (MAC) Service** is now operational
- Allows for the retrieval of code definitions, decoding of multiple allele codes, encoding of a multiple allele code and provisioning / activation of multiple allele codes

**New Services:**
- **Feature Service** – to register and retrieve enumerated sequence features
- **ARS Service** – to support Antigen Recognition Site reduction
- **Frequency Service** – elaborated in the Registry Diversity section of this report

In addition to DaSH activities, guidance regarding the exchange of KIR and CCR5 markers were incorporated into EMDIS IP12 this year, allowing registries to exchange this information with each other.

**Matching Algorithm Standards and Validation**

This group has been focused on validating the results of predictive matching algorithms. This validation has found a high degree of concordance, the results of which have been published. The Matching Algorithm Standards and Validation group is on indefinite hiatus since achieving this milestone. They will reconvene as the need arises.

**Registry Genetic Diversity**

This group aims to standardize haplotype frequency data, and provide shared resources for the community.

In the past year we completed an assessment of the haplotype frequency data available by region by mapping all of the organisations in BMDW to 12 global regions. A BMDW summary spreadsheet has been created to enumerate the registries (by ION) and a summarization of the typing of the donors organized by WHO region by locus and percentage of high-resolution HLA types. The results are captured in the meeting notes on the share website.

A “haplotype hackathon” meeting was held in Minneapolis in August 2016 with the following goals:

- **Portability:** To establish the technical platform for assigning identifiers to population-cohorts and haplotype frequency datasets and facilitate exchange of this data by standardizing the input and output file formats as well as required/optional parameters/variables.

- **Quality:** To develop a strategy for standardizing and comparing haplotype frequency estimation methods (building on previous published work). Establish metrics for measuring the quality of frequency sets, and computation methods for improving frequency sets.

- **Typing Strategy:** Identify populations where additional high-resolution typing is needed, set priorities and target cohort sizes algorithmically.

The working group has further collaborated at a data standards hackathon in Vienna in November 2016. At that meeting an API specification for a REST web service for haplotype frequency curation service was developed and published on Github. The next step is to implement this web service and start loading data. Since the majority of activity is taking place outside of the WMDA meetings we have decided there is no longer a need to have this subcommittee as part of the WGIT.
The Donor Medical Suitability Subcommittee chaired by John Miller (United States) and Hung Yang (Australia) continued its work to harmonise the international donor suitability criteria from different registries and present consensus criteria from the WMDA. The primary tool for disseminating this guidance is a wiki-based website, which now boasts an impressive 2 million hits since its establishment in 2013. The group continued to work this year to expand the existing guidance including addressing topical issues such as Zika virus.

The website for donor suitability can be accessed via the WMDA website (under professionals, tools) or go to: https://wiki.wmda.info

The main Working Group Medical met twice at the meetings in Singapore and then in Minneapolis.

Minutes from the Singapore meeting are available but matters discussed included:
1. Zika virus in donors;
2. Donors at work up assessment: type 2 diabetes mellitus, asthma;
3. Transgender donors;
4. Long Term Follow up of donors;

a. Carolyn Hurley initiated discussion regarding Standard 9.02, wherein it was recommended that donors should be followed up for 10 years. Given that outside of study settings, NMDP does not routinely follow well donors beyond 2 years, the question was raised about whether the standard should be modified. This work has continued through the year and a revised version of the standard will be considered in Marseille in 2017;

b. The use of alternative mobilising protocols;

c. The Standards Committee requested input from the Medical and Cord Blood groups regarding the practice of cryopreserving products including the discarding or retention of such products;

d. The issue of the mechanism of dealing with a donor with abnormalities was discussed as it is not detailed in the WMDA Standards, which advise that the TC is asked to accept or not accept. The TC has to make a choice, and needs to be informed before they start the conditioning regimen. The DKMS has a problem with the Donor Acceptance form,
because some collection units insist on sending and receiving the acceptance before clearing a donor. The result is that many transplantation centres refuse those donors, regardless of the reason (which might be something largely irrelevant like ‘living in UK for > 6 months’). A proposal has been discussed to delete the part where the transplant centre has to accept the donor or to list explicitly as an addendum. Grazia Nicoloso: they had some cases as described. Donor release is not the task of the TC. Some considered that it is better to simply inform the TC. It was recognised that it is difficult for the TC, since they have not seen the donor.

The meeting in Minneapolis was chaired by the chair-elect Ann Woolfrey.

Items discussed at that meeting included:
1. Biosimilar discussion by Torstein Egeland: it was determined to convene a working group to review and update the recommendations;
2. Long term follow-up of donors, discussion led by Carolyn Hurley: it was determined to proceed with revisions to the standard for clarification;
3. Disposition of leftover product, discussion by group;
4. Donor acceptance form, discussion led by group;
5. Proposal for a global study of ferritin and BM iron deficiencies: the proposal was introduced to the group. Presented to the group for improving evidence for ferritin thresholds to detect iron.
Working Group Quality and Regulation (WGQR)

Working Group Quality and Regulation (WGQR) has continued the topics already present in 2015. A major project, the guidelines for audits of collection centres has been finalized in 2016 and approved by the working group. It will now be prepared for publication in a peer reviewed journal. As a new topic, the WGQR took on finding a definition for new fields in EMDIS and BMDW.

As of January 1st, 2017, Julia Pingel will step down as chair. Salmah Mahmood Ahmed will take over the position as chair of the WGQR and we are happy to announce that Bette Braem has been selected for the position of chair-elect.

Meetings of the WGQR
The spring meeting in Singapore has seen lively discussion on various topics of the WGQR. In the working session, the current projects have been discussed (see details on the projects below). In the open session, we presented the new format of the regulatory requirements and organisations surveys implemented on WMDA share. All registries are asked to complete the surveys and update them at least once a year. The information can be entered in a registry’s profile in the WMDA database by the registry’s designee: https://share.wmda.info/display/WMDAREG/Database.

Pawinee Kupatawintu, Betina Sorensen and Ingrid Tistl each presented their approaches on the topic: audits and being audited. Indeed, in times where quality management gets more important, any registry or cord blood bank must be ready to welcome external audits (from accreditation or regulatory bodies) as well as being ready to audit those entities that provide essential services to their business (such as donor centres or apheresis or bone marrow collection centres). The second topic “Monitoring Stem Cell Product Quality-how far do you go?” was approached by Terry Schlaphoff, Susie Joron and Bette Braem. It is a very interesting question - while CBBs are very well regulated in monitoring their product quality, the same seems much more difficult for registries. However, the main goal promoted by WMDA is to provide high product quality to Transplant Centres - so it is our duty to consider this aspect carefully.

During the fall meeting, as every year, the results of the HLA
discrepancy report 2015 were presented. There is a stable trend to fewer errors. Interestingly, the newly added locus HLA-DPB1 seems to be quite challenging to the current techniques as it presents a higher error rate for DNA-based typing, a fact that registries might want to follow up upon.

As the new WMDA Standards will become effective on January 1st 2017, the Standards and Accreditation Committee highlighted the changes in the Standards and presented the rational.

Finally, with the approval of the guidelines for audit of collection centres, we thought it was a good time to discuss “Performance Management for Collection Centres; Elena Lara-Weissnau described the Registry and Donor Centre point of view in her presentation, on why it is important for them to set up a system to do this. Kuchen Hale presented on this topic also by sharing how the National Marrow Donor Programme Be the Match (NMDP) do this for their apheresis and bone marrow collection centres.

HLA Discrepancy Report
The HLA discrepancy survey for 2015 was fundamentally revised and extensive documentation including a short and a long how-to guide as well as explicit examples and explanations have been added. This revision was deemed necessary after the feedback from the 2014 data collection. With some minor additions (e.g. ION, graphs in spreadsheet) the HLA discrepancy survey is intended to stay unchanged in the future years. This will allow automation as well in data collection as in the analysis of the survey. The subcommittee agreed on a detailed structure of the analysis which was presented in Minneapolis. Starting with the 2016 HLA discrepancy survey, the report will also be no longer anonymous as most registries agreed to share their data also in this setting.

Finally, the WGQR wants to thank Marney Milsten for her time, effort and passion in the many past years where she led this project. Marney will no longer be able to invest time into the project. A new HLA-proficient advisor helping WMDA with the analysis (that is going to be as automated as possible) is looked for.

Candidates are welcome to contact the WGQR chair.

Audits of apheresis and collection centres
The comprehensive guidelines have been finalized after several revision cycles. Along with the guidelines, the group provides checklists that can be used during an audit as well as for a short annual evaluation. The documents have been approved by the WG and will be prepared for publication in a peer reviewed journal after board approval.

Validation of transport boxes
The subcommittee has been less active in the first half of 2016 as Karin Weber had to step down as subcommittee chair. The WGQR is happy that Kieran Herrity took over the task. The group is still working on a first draft of the guidelines for the validation of transportation boxes.

Global Registration Identifier for Donors (GRID)
2016 has been an eventful year for the GRID Task Force group, work for phase 3 of the plan is under way and the group has been busy producing guidance information for issuing Organisations as well as planning and hosting awareness sessions. Phase 3 of the plan was divided into sub-phases; 3a) GRID is a mandatory field in communication with EMDIS and BMDW. It is introduced as an optional field in the
communication between issuing organisations and their donor centres with a go live date of October 2017. 3b) GRID is used as the key donor identifier on search reports and is integrated in forms for donor request and outcome reporting. GRID is used on labels of products from adult donors when a donor identifier is required with a go live date of October 2018.

During the spring meeting the GRID Task Force group held a workshop during which the Planning and Preparing for GRID Implementation webinar was launched, this webinar talks through the main points Issuing Organisations should do to help them prepare for GRID. The group also produced the WMDA guidance for application of GRID to cord blood units, as this was identified as an area that required more detailed guidance. Both can be found on the WMDA Share public site for GRID.

During the WMDA Fall meeting there was a Q&A session on GRID, and there was also a GRID session during the NMDP council session. The focus for 2016 has been to spread the word about GRID across the globe.

**Donor Centre Audits**

The subcommittee chaired by Jennifer Wuchter completed the checklists to be used during an audit of donor centres. The checklists are now under revision and will be the basis for the corresponding guidelines. The project will be pursued in 2017.

**Criteria for evaluation of transplant centres**

In this new project, the group agreed on the scope: Creating a questionnaire and the corresponding criteria for evaluation of new transplant centres. The questionnaire should be used by registries to evaluate Transplant Centres from countries where there is no registry doing the evaluation. Further, registries might use the criteria to evaluate (new) TCs in their own country. The WMDA does not intend to implement a system where each registry evaluates each international TC. Instead, each registry should be responsible to ensure that their local TCs are experienced enough and well equipped to receive products from unrelated donors for their patients.

The group drafted a questionnaire which will now be evaluated by a group of medical advisors who will also help to find a consensus of criteria deciding if a TC’s experience justifies delivery of stem cell products for transplantation with products from unrelated donors.

**Definition for new fields in EMDIS and BMDW**

The WGQR came up with definitions for the two fields “Last Contact Date” and “Last Medical Screening” that were implemented in EMDIS and BMDW this year. The definition is meant to provide a minimum consensus on what data can be reported to provide search coordinators with comparable results.

If you would like to suggest other projects for the Quality and Regulation Working Group, please contact Salmah: salmah.ahmed@anthonynolan.org
Working Group Registries (WGRE)

The International Standardisation and Terminology Project
Project Lead: Amy Ronneberg (US)
The Project Group has been formed to work on further defining metrics used by registries to report their numbers/information to the WMDA. In 2016 they further defined the detailed definition for Registry Members and anticipate that this definition would go to the board for approval at their meeting in spring 2017.

The next definition to be addressed is “what is the starting point for counting day 1 for IDM testing”. Many thanks go to Amy Ronneberg for her hard work on leading this project in 2015-16. We welcome Kristin Naruko from NMDP and Beth Amer from One Match who will co-chair this project from January 2017.

WMDA Handbook
Project Lead: Pam Robinett (US)
In May 2016 an on-line version (Second Edition) of the WMDA Handbook was released at no charge to WMDA members through the WMDA website. Readers have the ability to provide feedback on-line, and access metrics are tracked by the WMDA office. There are currently no plans for any significant updates to the handbook in the next year. We are grateful to Pam Robinett for her enthusiasm and energy in leading this project over 2016. In 2017 it will be overseen by the WMDA Office until new leadership is needed to plan the new edition of the Handbook in a couple of years.

WMDA Education Committee
Chair: Betina Sorensen (DK), Sabine Hildebrand (DE)

Members of the project
Grazia Nicoloso (CH), Laurie Olesen (US), Joannis Mytilineos (DE), Beth Murphy (US), Annette Rasche (DE), Irina Evseeva (UK), Tia Houseman (US), Lydia Foeken and Doreen de Kruijf (WMDA office, NL)

The WMDA Education Day Committee meets during the year at teleconferences and a face-to-face meeting at WMDA spring meeting to discuss the ideas, feedback from the previous events and needs. This year the group came up with the programme “From Good to Great – Sharing Best Practices” for the 2016 Education Day. The programme consisted of three sessions. The first session was oral presentation of the selected four best abstracts. All the abstracts, including those not selected for oral presentation were published on the WMDA web page. The second session was a pros and cons session "Should donor and recipient meet", with
many different angles on this subject including stories from donors and recipients. After lunch the session was the World Café. Laurie Olesen had again made wonderful table decoration for this session. Thirty-two experts in four topics (Impact social media on donors, recipients and registries, donor follow-up, training of staff, why registration of ethnic minority is important) volunteered as moderators of 16 tables. The feedback from attendees was very positive. The Education Day was a success thanks to all those involved in preparation, presenting orals, and our special gratitude goes to WMDA office and NMDP colleagues who helped a lot with IT and administration.

**Forms Committee**
Chair: Jennifer Wuchter (DE)
The forms committee continues to maintain refine and launch forms that manage the overall search process.

This year’s main project was to get back to the WMDA community and check how many WMDA forms are actually in use, and how often they are used. The objective for this project, conducted by an online survey was the huge effort to update all forms on a yearly basis. Using the results of this survey there was a lively discussion during the latest forms committee have one last updated version of some forms that are only rarely used. This is an ongoing discussion. At the same time there is a discussion of merging some forms into one (e.g. F60/F80, DF1/DF2 and F10/F20/F40) to reduce the number of forms and prevent redundancy.
Furthermore, initiated by feedback the committee got from the online survey the updating cycle of the forms should be prolonged to every two years, since it is a lot of effort also for the registries to implement new forms every year. For the nearer future we are planning another round of updates, thereby also including a field for the GIRD in all forms.

**Search Coordinator Certificate Programme**
Programme Lead: Carolyn Hurley (US)

Members of the project
Inna Evseeva (UK), Annette Rasche (DE), Laurie Olesen (US), Gayleen Filsmyer (US), Anne-Marie van Walraven (NL) and Jorine Koenderman (WMDA office, NL).

A project of the Working Group Registries has been developing a web-based education programme for international search coordinators. After a 10-month pilot, the first formal basic programme was offered in October 2015 with 86 students participating (78 full course students; 8 selected modules only students). The basic programme includes 9 lectures from international experts in the field covering basic science topics related to donor search, accompanied by the hand-outs and additional educational materials. 9 module tests and a final exam must be passed to receive a certificate. 86 certificates were awarded for the basic course which ended in August, 2016. 64 students have begun the basic course which began in October 2016.

A pilot for the advanced level (2nd year) of the search coordinator launched in October 2015 with 11 student’s education programme was participating. The advanced programme includes 7 lectures from international experts in the field covering the advanced topics in HLA and graft selection and a further two case studies. The format is similar to the basic course. 42 students passing the basic course registered for first formal advanced course which began in October 2016. The project is currently planning for a membership level web-based continuing education programme open to search coordinators passing the advanced level course. The details of the Programme including topics and speakers could be found on Share [https://share.wmda.info/display/E DUC/WMDA+Education+Programmes](https://share.wmda.info/display/EDUC/WMDA+Education+Programmes)

Acknowledgements: The WMDA office is providing support for web-based programmes, creating and maintaining the learning site, and handling registration and certificates. The National Marrow
Donor Program is providing support for taping the lectures.

The European Group for Blood and Marrow Transplantation (EBMT) has endorsed WMDA’s educational programme and has provided liaisons from their membership to participate in the project.

**GEMS (Group of European Medium Size Registries)**

*Chair: Matti Korhonen (Fi)*

GEMS held two scheduled meetings in conjunction with WMDA meetings; one in Singapore (May 30, 2016), and one in Minneapolis (November 9, 2016). After approval, the minutes of each meeting are accessible to all WMDA members on Share.

The GEMS group follows the developments of the new BMDW with keen interest. GEMS representatives partook in the BMDW UG, giving active feedback to BMDW developers. The GEMS group will continue to provide input into future developments.

The group have discussed the application of both the single European code (effective in 2017) and GRID (effective in 2018) on their cell products.

The GEMS group has encouraged and provides a platform peer-to-peer exchange of ideas and council on challenges that are met in everyday work in member registries.

**Asian Pacific Registries**

*Chair: Jane Prior (Singapore)*

With Singapore hosting the IDRC in 2016, a lot of focus was placed on the APAC region with pro-active outreach to those countries beginning their transplant journeys and looking to start a local donor register. The key highlight was a one-day workshop co-hosted by NMDP and Singapore’s BMDP which brought together participants from six regional countries: Malaysia, Sri Lanka, Myanmar, Vietnam, Bangladesh and the Philippines to share ideas on best medical practice and smart outsourcing to help fast-track register development. Prof Shinichiro Okamoto led the discussions around the medical parameters while Histogenetics presented on the advantages of outsourcing tissue typing services with robust discussion on the shared similarities and cultural challenges.

At the Asia Pacific Registries’ meeting in Minneapolis, there were informative presentations from the following registries: DATRI, Hong Kong, Singapore, Japan and Australia. In addition, the meeting considered whether there were potential projects for the group to work on with a focus on those issues that affected multiple registries in the region but that were not more general (i.e. affecting registries outside the region). Discussion highlighted two topics for potential future collaboration: (1) donor availability and the specific cultural challenges in Asia Pacific and (2) collection restrictions for donors of low body weight (in countries with traditionally lower body weights).

**International Emergency Task Force (IETF)**

The IETF is planning on updating the Operating Procedure and will also be reassessing the Bylaws. The Task Force believes that, once the purpose and scope of this task force has changed, it will be more relevant. The plan is to re-evaluate these documents and provide an update to the WMDA community in the spring.
On 16th of September 2016 the second celebration of World Marrow Donor Day (WMDD) was a fact. This day was celebrated for the first time in 2015 to thank all donors worldwide; unrelated donors, family donors, cord blood donors, donors who already have donated, and donors who are on the global registry waiting to donate. This day raises awareness among the general public and decision-makers about being a stem cell donor and the impact of blood stem cell transplantation on patient’s live.

More than 400 events were organised worldwide and it was impressive to see the creativity between countries around the world. A special thank you to Daniel-Philipp Hoffmann of DKMS who assisted the WMDA office in setting up a social media campaign. Another thank you to the members of the WMDD Task Force who assisted in developing a new website and brainstormed about the branding of the day.

This year there are three WMDD 2016 prizes:
- Incentive prize
- Originality prize
- Grand prize

The nominees of WMDD prizes are:

**Incentive Prize:**
- China Marrow Donor Programme, CN
- DATRI Blood Stem Cell Donors Registry, IN
- Rusfond, RU

**Originality Prize:**
- Anthony Nolan, UK
- Don de moelle osseuse, FR
- Gift of Life, US

**Grand prize:**
- Ezer Mizion Bone Marrow Donor Registry, IL
- REDOME, BR
- Singapore Bone Marrow Donor Programme, SG

The winners of WMDD 2016 are:
- DATRI Blood Stem Cell Donors Registry, IN
- Gift of Life, US
- REDOME, BR

WMDA would like to thank the independent jury for completing the difficult task of selecting the prize winners.
I would like to thank all the donors and volunteers,
PROJECTS DONE BY THE WMDA OFFICE

The WMDA office is the central point for all activities of the WMDA.
In 2016 ten persons were working for the WMDA:
- Lydia Foeken: executive director
- Marieke Chatelain: WMDA Standards, accreditation, qualification
- Monique Jöris: annual Report, WMDD, S(P)EAR
- Jorine Koenderman (from February 29, 2016): BMDW Search & Match Service, Manager user services BMDW, SCCP
- Paulien Kort: website, forms, WMDA Share, PR, administrative support
- Dorien de Kruijf: communication, meetings, corporate contacts
- Clazina van der Plas (until 31-05-2016): finance administration
- Anne-Marie van Walraven (until 01-08-2016): volunteer to assist with the development of Search Coordination Certification Programme
- Caroline van Veen (from August 1, 2016): BMDW office, Finance and HR WMDA
- Liesbeth van Klarenbosch, BMDW Search & Match Service, IT support (from December 1, 2016)

In 2016 the WMDA office has worked on multiple projects in board committee/working group. Find below a summary of the projects worked on by the WMDA office in the year 2016:

**Board**
- Implemented the goals described in the strategic plan of the WMDA
- Published the WMDA Financial/Activities Report 2015
- Developed a strategic plan to pursue consolidation of WMDA/BMDW/NetCord
- Participated in developing and implementing a modernized BMDW
- Assisted the BMDW office in their operations
- Participated in the strategic discussions about the future of BMDW
- Set up a HR structure and staffing plan for combined organisation

**Board committees**
- Participated in and assisted the Accreditation Steering Committee and Standards Committee
- Participated in and assisted the Finance Committee
- Participated in and assisted the IDRC committee
- Participated in and assisted the S(P)EAR Committee
- Facilitated Nomination procedure
- Coordinated the launch of the new WMDA Standards

**PR**
- Initiated and supervised the development and implementation of the World Marrow Donor Day on September 16th, 2016
- Developed a new WMDD website where events can be submitted by event organisers
- Coordinated the revision of the WMDA Handbook: a gift for life.
- Maintained websites, Share, Facebook, Instagram and Twitter account of WMDA and WMDD.

**Publications**

**WMDA meetings and IDRC**
- Coordinated the programme for WMDA Fall Meeting 2016 in Minneapolis, MN, USA in collaboration with Tia Houseman
- Assisted in the organisation of
the WMDA Education Day in Minneapolis, US;

- Developed in collaboration with NetCord Foundation the second WMDA NetCord Cord Blood Banking Day in 2017;
- Selected the meeting location and prepared the spring meeting 2017 in Marseille, FR;

**Representation**

- April 3-6: EBMT Meeting Valencia, ES
- May 31: Emerging Seminar for Asian Registries
- June 1-2: IDRC, Singapore, SG
- June 27-29: ARTHIQS Rome, IT
- November 4: CIBMTR Office, Milwaukee, US
- November 11-12: NMDP Council Meeting, US
- November 22: Cellex GmbH, Cologne, DE
- November 28-29: Notify Rome, IT

**WMDA working groups and EMDIS**

- Updated the WMDA forms on request of Prometheus Users to harmonize with the EMDIS dictionary;
- Collected the HLA discrepancy questionnaires and sent out the results to the participating registries;
- Published the WMDA Annual Reports for Stem Cell Donor Registries and Cord Blood Banks;
- Assisted in the development of and participated in the International Emergency Taskforce (IETF);
- Updated the content of the WMDA handbook;
- Started the development of an online KPI tool for registries;
- Assisted in the development of global ID numbers (GRID) for registries;
- Updated registries holiday calendar;
- Updated the registries organisational profile and make it readily available for the membership through https://share.wmda.info;
- Collaborated in the development of the Search Coordinator Certification Programme (basic level and advanced level);
- Assisted with the EMDIS Education Programme (certificates, exams);
- Maintained WMDA Share as online collaboration tool for the WMDA membership;
- Contacted registries to update their regulatory questionnaire;
- Made available the revised WMDA Transport Guidelines in https://share.wmda.info;
- Assisted in the development of a G-CSF survey
- Assisted in finalising the CB21 cord blood unit report
- Updated the donor wiki

**Specification of WMDA office Hours 2016**
## Financial statement

### Statement of Financial Position as of December 31, 2016

(*in euro*)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td>1,087,143</td>
<td>692,208</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receivables</td>
<td>76,848</td>
<td>5,365</td>
</tr>
<tr>
<td>Other receivables</td>
<td>32,235</td>
<td>2,919</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td>978,060</td>
<td>683,924</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td>1,087,143</td>
<td>692,208</td>
</tr>
<tr>
<td><strong>Association equity</strong></td>
<td>769,935</td>
<td>656,690</td>
</tr>
<tr>
<td>Remaining reserves</td>
<td>444,515</td>
<td>444,515</td>
</tr>
<tr>
<td>Reserves for special purposes</td>
<td>254,260</td>
<td>141,015</td>
</tr>
<tr>
<td>Reserves for accreditation</td>
<td>71,160</td>
<td>71,160</td>
</tr>
<tr>
<td><strong>Short term liabilities</strong></td>
<td>317,208</td>
<td>35,518</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>19,187</td>
<td>10,143</td>
</tr>
<tr>
<td>Accrued liabilities</td>
<td>14,424</td>
<td>0</td>
</tr>
<tr>
<td>Other debts</td>
<td>283,597</td>
<td>25,375</td>
</tr>
</tbody>
</table>
Statement of revenue and Expenditure as of December 31, 2016  
(*in euro)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contributions (individual and registry)</td>
<td>343,014</td>
<td>320,587</td>
</tr>
<tr>
<td>Contributions (corporate)</td>
<td>45,500</td>
<td>46,250</td>
</tr>
<tr>
<td>Accreditation</td>
<td>42,500</td>
<td>38,240</td>
</tr>
<tr>
<td>WMDA books</td>
<td>17,641</td>
<td>7,730</td>
</tr>
<tr>
<td>Meeting</td>
<td>101,650</td>
<td>66,436</td>
</tr>
<tr>
<td>Other income</td>
<td>83,073</td>
<td>64,230</td>
</tr>
<tr>
<td><strong>Expenditures</strong></td>
<td>432,811</td>
<td>347,473</td>
</tr>
<tr>
<td>Wages and salaries</td>
<td>216,259</td>
<td>246,641</td>
</tr>
<tr>
<td>Social insurances</td>
<td>31,700</td>
<td>5,256</td>
</tr>
<tr>
<td>Pension charges</td>
<td>26,095</td>
<td>4,023</td>
</tr>
<tr>
<td>Other personnel expenditures</td>
<td>2,194</td>
<td>403</td>
</tr>
<tr>
<td>Office costs</td>
<td>45,630</td>
<td>43,822</td>
</tr>
<tr>
<td>General costs</td>
<td>30,310</td>
<td>18,216</td>
</tr>
<tr>
<td>Other expenditures</td>
<td>80,623</td>
<td>29,112</td>
</tr>
<tr>
<td><strong>Operating result</strong></td>
<td>110,017</td>
<td>84,414</td>
</tr>
<tr>
<td>Received interest</td>
<td>3,226</td>
<td>8,896</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>113,243</td>
<td>93,310</td>
</tr>
</tbody>
</table>

Detailed report available on request.
WMDA Executive Committee
and Board Officers 2016

Executive Committee:

- Michael Boo, JD, President
- Carlheinz Müller, MD, PhD, President-elect
- Machteld Oudshoorn, PhD, Secretary General
- Rudolf Schwabe, PhD, Treasurer

Board Officers:

- William Hwang, MD, Past President
- Jane Prior, Vice President Asia, Australia and Pacific Islands
- Evelyne Marry, MD, Vice President Europe and Africa
- Mary Laughlin, MD, Vice President North and South America
- Antony Montague, MSc, Secretary Asia, Australia and Pacific Islands
- Etienne Baudoux, MD, Secretary Europe and Africa
- Jeff Szer, Chair WG Medical
- Irina Eyseeva, MD, Chair WG Registries
- Matt Prestegaard, IA with a B.A. Business, Chair WG Information Technology
- Julia Pingel, PhD, Chair WG Quality and Regulation
- Sergio Querol, MD, PhD, Chair WG Cord Blood
- Jon van Rood, MD, PhD, President Emeritus